

FACULTY OF HUMAN AND SOCIAL SCIENCES

Socio-Economic and Demographic Factors Affecting Age at First
Marriage among Females in South Africa

BY

Ernest Mpolokeng

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A MINI DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
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SUPERVISOR: PROF. MARTIN E. PALAMULENI



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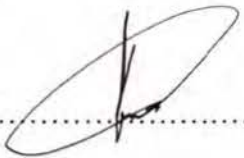
ABSTRACT

The purpose of this study is to identify the socio-economic and demographic factors affecting age at first marriage among women in South African. The data used is drawn from the 2003 South African Demographic and Health Survey. Univariate, bivariate and Cox regression were employed to examine the relationship between age at first marriage and socio-economic and demographic factors. Marriage in South Africa takes place late, with the mean age at marriage above 30 years. The findings from the Cox-regression analysis indicates that age, education, population group, age at first intercourse and age at first birth are significantly associated with early marriage while wealth status and childhood place of residence are associated with late marriage. The risk of first marriage was 58 percent lower for women with higher educational attainment compared to women with no education. Policy implications of the study are discussed. One such implication is to promote family life education across all population groups.

DECLARATION

I, Ernest Mpolokeng declare that this dissertation for the Masters Degree of Population Studies at the North West University here by submitted, is my own work, and has not previously been submitted by me for a degree at this or any other University. All the design and execution in this study is my own and all materials contained herein have been duly acknowledged.

Mpolokeng K.E

Signature.....

Date.....11/09/2014.....

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LIST OF ABBREVIATIONS

AIDS:	Acquired Immunodeficiency Syndrome
DHA:	Department of Home Affairs
DOH:	Department of Health
EA:	Enumeration Area
HIV:	Human Immune-deficiency Virus
HSRC:	Human Science Research Council
MRC:	Medical Research Council
PPS:	Probability Proportion to Size
SADHS:	South African Demographic and Health Survey
SAYRBS:	South African Youth Risk Behaviour Survey
SMAM:	Singulate Mean Age at Marriage
STATS SA:	Statistics South Africa
USAID:	United States Agency for International Development

CHAPTER ONE: INTRODUCTION

1.1 Geographical background

South Africa is a democratic country that established nine provinces after its first democratic elections in 1994 namely, the Western Cape, the Eastern Cape, the Northern Cape, the Free State, KwaZulu-Natal, the North West, Gauteng, Mpumalanga and Limpopo. All the nine provinces have their own special dynamics that affect their social-economic status differently and vary in terms of development as they are differently affected by modernisation. In South Africa, Gauteng and the Western Cape can be classified as the most urbanised and modernised provinces. Other provinces such as the Eastern Cape, Limpopo, KwaZulu-Natal and the North West can be classified as the rural provinces in South Africa.

The regional socio-economic development disparities are bound to affect the timing of marriage. An expectation could be that women who reside mostly in developed provinces would postpone marriage more than their counterparts who reside in less developed provinces, as the majority of them would be educated and have more opportunities for career development outside of the home (Ikamari, 2005). There are variations in terms of unemployment by provinces, population group and gender, mainly due to the variations in the rate of development in each province. The black African population group, especially women, has always been noted to have the highest unemployment rate compared to Whites, Asians and Coloureds (Statistics South Africa, 2008). For instance in 2008, Black African women's unemployment rate was 31.1% while for men it was 23.4% (Statistics South Africa, 2008).

In terms of other population groups, the 2008 unemployment rate for coloured women was 21.3% against 17.9% for coloured men; For Asian women it was 15.7% against 10.8% for men, and for white women, 5.8% against 3.6% for white men was reported (Statistics South Africa, 2008). In the second quarter of 2008 the unemployment rate among African women was more than eight times than of white men (Statistics South Africa, 2008). Moreover, the unemployment rate in South Africa is the highest among the youth; during 2012, 679,000 young women aged 15-24 were unemployed, against 620,000 employed implying a high unemployment rate of 52% for women. For young men aged 15-24, 45% of unemployment rate was reported (Statistics South Africa, 2008). The overall unemployment rate during the last quarter of 2012 was 24.9%.

South Africa has eleven official languages namely; English, Afrikaans, IsiXhosa, IsiZulu, Sesotho, Setswana, Sepedi, Siswati, Tshivenda, Xitsonga and IsiNdebele. These tribes/ethnic groups who speak these languages, residing in each province create a complex situation where different populations in terms of culture interact. For example, the Northern Cape consists mostly of the coloured, Afrikaans speaking population group while KwaZulu-Natal consists mainly of Zulu speaking people. Gauteng has people of different indigenous languages/cultures and other African languages. The North West province consists of the Setswana speaking people, but it is also a second residential province to the Xhosa speaking people from the Eastern Cape who work in mines in the province. All these cultural groups of the Zulus, Xhosa, English, Afrikaans, Sotho, Tshivenda, Xitsonga, IsiNdebele, Sepedi, and others create a complex situation where these people interact and engage in marriage activities. Each ethnic/ cultural group has its own socio-cultural ideologies composed of norms, beliefs and values and therefore, it is likely that each cultural group may

stress certain aspects in terms of marriage and fertility. In all the above mentioned cultural groups, pre-marital sex and childbearing is not socially and culturally accepted. But a number of research studies (Garenne, Tollman, Kahn, Collins and Ngwenya, 2001) have observed a high prevalence of adolescent fertility in the black population of South Africa, especially in groups and in situations as diverse as those in rural Kwazulu-Natal and Cape Town where pregnancies in women aged 12-21 accounted for about a third of all pregnancies. This was supported by Preston-Whyte et al. (2001) saying that, in the Kwazulu-Natal province, teenage pregnancy is so prevalent that it has become virtually institutionalized.

According to Garenne, Tollman, Kahn, Collins and Ngwenya (2001), adolescents start sexual activities at a young age in South Africa. Furthermore, a study of school-going adolescents in the Free State reported that a high proportion of teenagers become sexually active around twelve years due to experimentation or peer pressure (Garenne, Tollman, Kahn, Collins and Ngwenya, 2001). Research to assess risk factors for teenage pregnancy among pregnant and non-pregnant teenagers in a township of the Western Cape found that all the female informants (mean age 16.4 years) had sexual intercourse with at least one boyfriend (Garenne, Tollman, Kahn, Collins and Ngwenya, 2001).

They have also note that premarital fertility was particularly high at 15-19 years and exceeded marital fertility in the age group 20-24; moreover, premarital fertility accounted for virtually all births before age fifteen, 82 percent of births among women aged 15-19 and 39 percent of births among women aged 20-24 (Garenne, Tollman, Kahn, Collins and Ngwenya, 2001). In South Africa, premarital

fertility/nonmarital childbearing varies greatly by race. A high frequency of nonmarital childbearing is a common feature for African and Coloured population groups, compared to Whites and Asians (Zwang and Garenne, 2006). Therefore it can be said that even though pre-marital childbearing is not embraced in South Africa, it is accepted.

According to Statistics South Africa (2012), there were 5.3 million children under 5 years in South Africa during 2012 with the majority of them being Black African (85.1%), followed by Coloured (8.0%), white (5.0%) and Indian/Asian (1.9%). Statistics South Africa observed that for the period 2002-2012, most young children lived with their mothers only (between 40% and 44%). There were differences by race in children who lived with their biological parents. The majority of young children from the white (86.5%) and the Indian/Asian (77.5%) population group lived with their biological parents, 53.5% of those from the coloured population group lived with both their biological parents and 31% of black African children lived with both their biological parents (Statistics South Africa, 2012). Most young black African children lived with only their biological mothers (45.6%).

1.2 Background of the study

Marriage is an important institution for both the individuals and society at large. For the individuals, it is a significant and memorable event in their life cycle as well as the most important foundation in the process of family formation (Ikamari 2005). In addition, marriage is the rite of passage that marks the beginning of an individual's separation from the parental unit. In terms of society, it unites several individuals from different families and represents the creation of a production and consumption

unit as well as one for the exchange of goods and services (Quisumbing and Hallman, 2003). In most societies marriage defines the onset of the social acceptable time for childbearing. Early and virtually continuous marriage throughout a woman's reproductive years has been maintained by several related marriage customs such as polygamy, levirate marriage and bride wealth or bride price (Van de Walle, 1968; Goldman and Pebley, (1986).



In Sub-Saharan Africa, marriage has been described as taking place early and is universal (Van de Walle, 1968; Lesthaeghe, 1971). South Africa has been experiencing very rapid socioeconomic development which have contributed significantly to the improvement of the status of women through expanding education and participation in the modern sector of the labour force. Such changes have affected attitudes towards the onset of marriage in South Africa. Age at first marriage is currently on the increase as couples are increasingly opting for cohabitation and postponement of marriage, or individuals prefer to remain single.

Links between labour market positions, government policies, the marriage market and the cost of raising children have been noted to have an influence on union formation and fertility decisions (Ermisch, 2003 and Gustafsson, 2001). Education has been singled out as one of the most important factors contributing to the decline in the number of marriages all over the world (Ikamari, 2005). Other determinants such as the lack of quality in the marriage market and the shortage of marriageable men have been proposed by many researchers (Gurmu and Mace, 2013). According to Gustafsson and Worku (1997), African women increasingly postpone marriage, with marriage taking place mostly when women are between 35-39 years old. Amongst the

same group, close to 36 percent still remain single (Gustafsson and Worku, 1997). The timing of age at first marriage merits investigation not only because of the close temporary link between marriage at the onset of childbearing, but also because the age when men and women marry has implications for the organization of family life and for gender relations within society (Mensch, Singh and Casterline, 2005). According to Van de Walle (1993) understanding nuptiality change could further the understanding of other social changes. For better understanding of family formation, the timing of age at first marriage merits investigation not only because it signals the initiation of reproductive life but also because the marriage process reflects the way family life is organised and functions in a particular culture (Malhotra, 1997).

In South Africa and most of the other countries, most of the research documents have focused on trends and differentials in the age at first marriage among women, with a particular focus on the practices of early marriage (Ikamari, 2005; Torr, 2007; Palamuleni, 2011; Adair, 2007; Bongaarts, 2006). The literature on the age at first marriage among men is relatively low partly because of the restriction of demographic survey data. Early marriage has been given attention mainly to emphasize the potentially harmful consequences for young women of marrying too early. Although we have documented and offered explanations for the trends in early age at first marriage, we have not examined the impact of rising age at first marriage on the lives of young people partly due to limited studies on the consequences of high age at first marriage (Mensch, Singh and Casterline, 2005). Moreover, links between high age at first marriage, HIV/AIDS prevalence, family formation, dysfunctional family systems have not been well documented. This paper will focus on the impact of late age at marriage on the society.

1.3 Problem Statement

Age at first marriage in South Africa is high (Garenne, 2004). According to the 2011 census, the Singulate Mean Age at first Marriage (SMAM) for men been observed as 32 years and 29 years for women (Statistics South Africa, 2011). The age at first marriage for men has increased since 1996, as the mean age at first marriage for men of 31 years was observed while for women the mean age at first marriage of 29 years was observed during 1996 (Statistics South Africa, 2011). High age at marriage is associated with a number of negative social and reproductive health outcomes such as HIV/AIDS prevalence, teenage pregnancies, poverty and single motherhood.

South Africa has a problem of high HIV/AIDS prevalence, the Human Science Research Council (HSRC) has observed that, in South Africa, an estimated 6.4 million people were living with HIV/AIDS in 2012(HSRC, 2012). Moreover, HIV prevalence was found to be higher in the unmarried and co-habiting population than in the married population. The estimated prevalence of HIV (the proportion of people living with HIV in the country) increased from 10.6% in the 2008 HIV household survey to 12.3% in 2012 (HSRC, 2012).Studies have shown that there exists a negative association between high HIV/AIDS prevalence and the high age at first marriage (Bongaarts, 2006; Adair, 2007). Women who marry late may have increased risk of HIV infection because of the longer period between first sex and first marriage (Bongaarts, 2006; Adair, 2007; Mensch, Singh and Casterline, 2005). Therefore the high age at marriage in South Africa impacts on the HIV prevalence rate.

South Africa has a problem of single motherhood particularly for the black African and the coloured population groups (Statistics South Africa, 2012). There is a

negative association between high age at first marriage and the state of single motherhood. The high age at marriage, especially for the black African and coloured population group creates a problem of single headed households. Statistics South Africa (2012) observed that the majority of mothers from the Indian/Asian (85.0%) and the white (82.7%) population groups were legally married whereas less than half from the coloured (44.6%) and the black African (24.9%) population group were legally married. Therefore a majority of mothers from the black African population group had never married.

The state of single motherhood can be linked to the issue of absent but living fathers, dysfunctional family system, teenage pregnancy and poverty levels. According to Holborn and Eddy (2011) about 9 million children are growing up with absent but living fathers in South Africa. Moreover, the proportion of children with absent living fathers increased from 42% in 1996 to 48% in 2009. The proportion differs by race with Black Africans increasing from 46% to 52%, coloureds from 34% to 41% and whites from 13% to 15% between 1996 and 2009 respectively (Holborn and Eddy, 2011).

According to Holborn and Eddy (2011), the presence of a father can contribute to cognitive development, intellectual functioning and school achievement. Girls who grow up with their fathers are more likely to have higher self-esteem, lower levels of risky sexual behaviour and fewer difficulties in forming and maintaining romantic relationships later in life (Holborn and Eddy, 2011). The relationship between age at first marriage, absent but living fathers and teenage pregnancy may also be explained.

Girls growing up with fathers have less likelihood of having an early pregnancy or bearing children outside marriage (Holborn and Eddy, 2011).

Single motherhood create a situation where most of the children may be raised living below the poverty level and will grow up experiencing poverty. This could be because marriage imposes contractual obligations and responsibilities of parents to their children. Where the two parents are obliged by marriage, the child fares better (Statistics South Africa, 2012). But where the obligation is falling only on the mother, as is the case in the coloured and black African population group, the chances of complete orphanhood, and production and reproduction of poverty amongst the children in these households is very likely (Statistics South Africa, 2012). Therefore an association between single motherhood and poverty levels for the black African and coloured population groups can be investigated.

The section above has shown a linkage between age at first marriage, HIV/AIDS and single motherhood. Furthermore, a link between single motherhood and absent but living fathers, teenage pregnancy and poverty levels have been established. This study seeks to model determinants of age at first marriage in South Africa. Age at first marriage or union is of particular interest as it is the foundation or formation of families which form part of the societies we live in. Therefore age at first marriage can be seen as a good proxy for measuring the formation of families.

1.4 Rational of the Study

This study was motivated by the fact that we had realized that South Africa has a lot of challenges when coming to issues such as HIV/AIDS prevalence, high teenage pregnancy, early engagement into sexual activities, single headed household (female headed households), issues around absent but living fathers and other issues highlighted above on the problem statement. The conclusion drawn from the problems above was, is high age at first marriage in South Africa contributing the challenges we are faced with above? The literature review has shown that age at first marriage is directly or indirectly linked to the issues we have highlighted.

Therefore this study focuses on identifying demographic, social and economic determinants/factors affecting age at first marriage (late age at first marriage and early age at first marriage) in South Africa. The study will share light on determinants of age at first marriage under the assumption that determinants of age at first marriage also affect the South African family system and formation of the nuclear families in particular. Therefore the outputs of this study will contribute to the knowledge of the family formation in South Africa and the study outputs will also add to the limited literature on the impact or consequences of high age at first marriage to the society. Understanding the determinants of family formation is important as a family (nuclear family) is the cornerstone to building a society which is vibrant, economically active and able to transfer moral support to its younger generation.

1.5 Objectives

1.5.1 Main Objective

The main objective of the study is to investigate the social, economic and demographic factors affecting age at first marriage in South Africa.

1.5.2 Specific Objectives

The following are the specific objectives of the study:

- To determine the level of marriage and differentials of Age at First marriage by socio-demographic variables.
- To investigate factors that contribute to family formation in South Africa.

1.6 Organization of the Study

This study is arranged into five sections. As indicated before, chapter one provides background about the age at first marriage in South Africa and also consists of the problem statement, justification of the study and objectives of the study. Chapter two provides a literature review of the interaction between age at first marriage and the socio-economic and demographic factors in South Africa and other countries. It also looks at the determinants of age at first marriage. Chapter three describes the source of data and analytical techniques used for analysis. Chapter four presents the results of the study and chapter five provides summary, conclusions and recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the literature review. The chapter has been divided into four sections as follows: Global patterns of age at marriage, types of marriage in South Africa, Age at marriage in South Africa, and Determinants of age at marriage in South Africa and Other Countries.

2.2 Global Patterns of Age at First Marriage

Age at marriage is of particular interest because it marks the transition to adulthood in many societies. It is the point at which certain options in education, employment and participation in society are closed and the beginning of regular exposure to the risk of pregnancy and childbearing (Ikamari 2005). Age at first marriage differs from country to country around the world. A study by Garenne (2004) reviewed levels, trends and factors of female age at first marriage in 32 Sub-Saharan African countries over the past five decades and confirmed that median age at first marriage is still low, in the 15-19 age band for most countries, with the exception of three Southern African Countries (namely Namibia, Botswana and South Africa) where age at first marriage is higher.

According to Garenne (2004), the main factors of the increase in age at marriage were levels of education and income, while the main factors of lower age at first marriage were religion (Islamic and Christianity), polygyny and urbanisation, after controlling for income and education. Comparing African countries with the Asian, European, Northern American, Oceanian, Latin American and the Caribbean countries, there is a significant variation in terms of the age at first marriage. Early marriage was most common in traditional societies of Africa and Asia prior to 1950 and is still a

dominant pattern in many countries in these continents. Late marriage (above age 25) seems to be a common feature of modern western societies and Japan at the end of the 20th century as well as some atypical Southern African Societies such as South Africa, Namibia and Botswana (Garenne, 2004). The comparisons based on the singulate mean age at marriage (SMAM) depicts that generally around the world, women marry at an earlier age than men (United Nations, 2000). Furthermore the picture is still the same when developing and developed countries are compared.

According to the United Nations(2000), comparing African countries with the Asian, European, Northern America, Oceania, Latin American and the Caribbean, the age at first marriage is the lowest for the African Continent (below 25 years) compared to other continents. Furthermore, North American and Oceania had the highest age at first marriage, above 25 years. Comparing the age at first marriage for South Africa with the East African countries such as Burundi, Malawi, Uganda, Mozambique, Tanzania, Zambia and Zimbabwe, the age at first marriage for women was high for South Africa (27.1 years) and was the lowest for Mozambique (18 years), Uganda (18.2 years) and Malawi (18.6 years), (United Nations, 2000).

Moreover, the age at first marriage for South Africa is the highest compared to the Middle African, North African, West African and Southern African countries (United Nations, 2000). However the Southern African countries such as Botswana (26.9 years), Namibia (26.4 years), and Swaziland (25.9 years) can be observed as having a high age at first marriage along with South Africa (27.1 years) (United Nations, 2000).The age at first marriage for South Africa most likely fits the age at first marriage for the Northern European countries such as Sweden (31.8 years), Norway

(28.4 years), Ireland (28.7 years) and Iceland (31.7 years). Other countries include Germany (29 years), Barbados (31.8 years) and Dominica (31.5 years) (United Nations, 2000).

2.3 Types of Marriages in South Africa

Marriage in South Africa exists in a number of different forms as a result of the diversity of religious and cultural variations in the country. There are three types of marriage in South Africa namely: civil marriages, customary marriages and civil unions (Statistics South Africa, 2011). Civil marriages are marriages registered according to the marriage act, 1961 (Act No. 25 of 1961) and are generally solemnised at the offices of the Department of Home Affairs and the chapels or religious buildings by only licensed marriage officers (Statistics South Africa, 2011). After the solemnisation ceremony the marriage officer issues the couple with a marriage certificate.

The marriage act for civil marriages also puts a restriction on marriage involving minors (persons under 18 years old). These minors require the consent of a parent, a guardian or a commissioner of oath before entering into a marriage. Moreover, boys under 18 years and girls under 16 years of age also require the consent of the minister of Home Affairs before they can marry (Statistics South Africa, 2011). Civil unions refers to the voluntary of two persons regardless of gender who are both 18 years of age or older, which is solemnised and registered by way of either a marriage or a civil partnership, in accordance with the procedures prescribed in the civil union act, 2006 (Act No. 17 of 2006), (statistic South Africa, 2011).

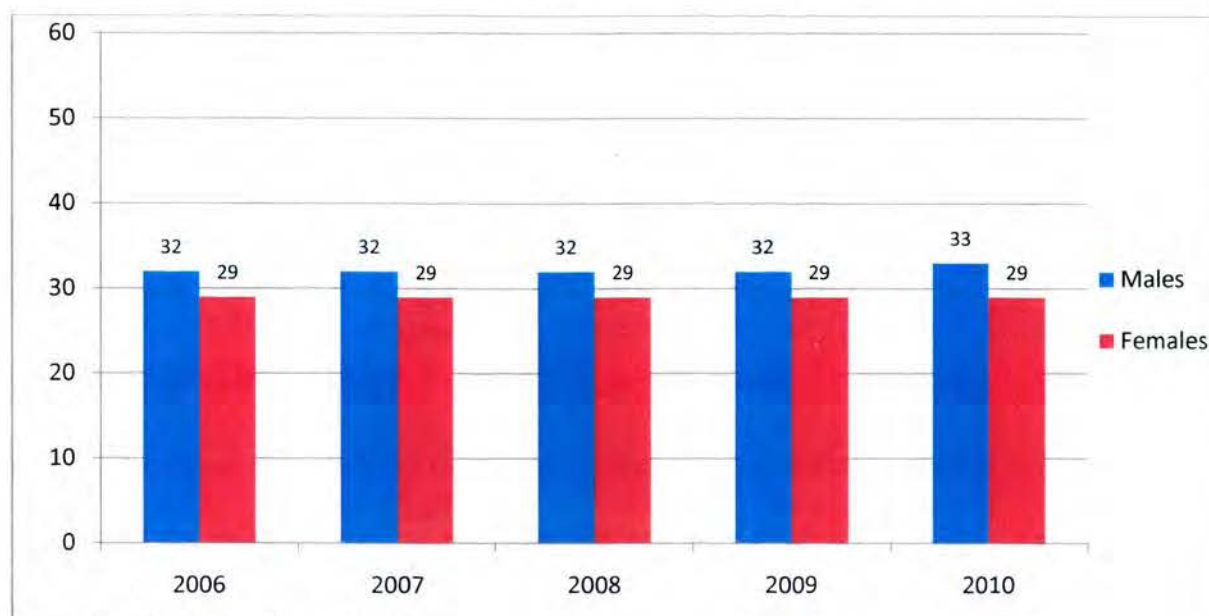
The legal consequences of marriage under civil unions act are the same as those of a marriage act.

Customary marriages are marriages that are negotiated, celebrated or concluded according to any of the system of indigenous African customary law which exist in South Africa as prescribed in the recognition of customary marriage act, 1998 (Act No. 120 of 1998), (Statistics South Africa, 2011). The recognition of customary marriage act, 1998 does not prohibit a male already in a customary marriage to enter into a civil marriage or another customary marriage (i.e. polygynous marriage).

2.4 Age at First Marriage in South Africa

In South Africa, data used to compute the age at first marriage is mainly drawn from census, surveys and vital registrations systems. All the above mentioned data sources have their unique challenges, though South Africa has relied on them for age at first marriage estimates. Figure 1 below shows that generally South African women marry at an earlier age than South African men. Furthermore, it shows that on average women engage in their first marriage at the age of 29 years while men start to marry at the age of 33 years (Statistics South Africa, 2010). According to Statistics South Africa, in 2010, the highest number of males getting married for the very first time by civil marriage was from the 30-34 age groups while for the females the highest number was for the 25-29 age group.

Figure 1: Median ages of males and females getting married for the very first time at time of civil marriage, South Africa, 2006-2010



Source: Statistics South Africa (2010).

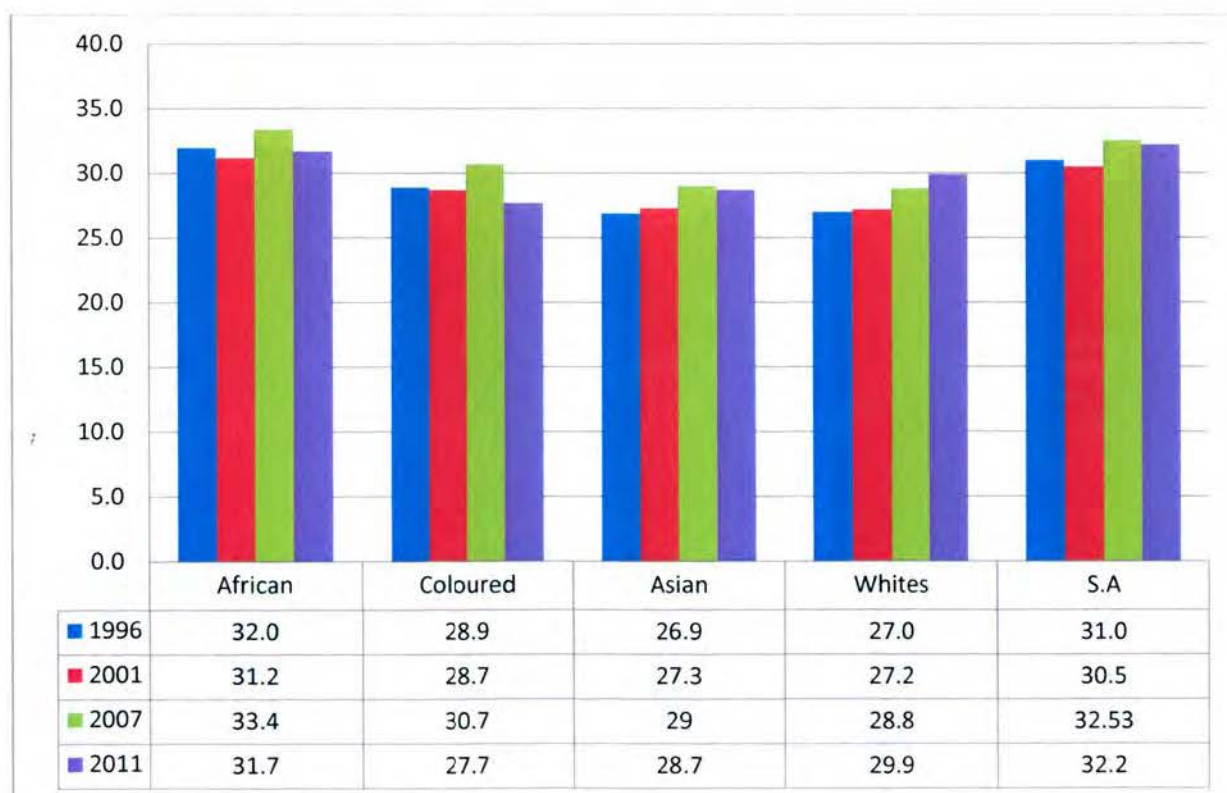
Figure 1 above shows that the age at first marriage varies by gender. It has been constant for the past four years with age at first marriage for males being 32 years while for female being 29 years. In 2010, there was a slight increase in the age at first marriage for men by one year while for women it remained stationary. However, in 2011, marriage of 18 bridegrooms and 238 brides aged less than 18 years were registered, with 11 bridegrooms and 223 brides marrying for the first time. Furthermore, the median ages have increased in 2011 for both bridegrooms (34 years) and brides (30 years), with a constant age difference of four years (Stats SA, marriages and divorce, 2011).

Based on the 1996, 2001 and 2011 censuses and the 2007 community survey, estimates of the age at first marriage was computed using SMAM and the results have shown that on average age at first marriage for men in South Africa was 31 years in 1996 and 30.5 years in 2001(Palamulemi, 2010). Figure 2 below shows that the mean

age at first marriage for South African men has increased from 30.5 years to 32.53 years in 2007. The mean age at first marriage of 32 years was observed in 2011 for males. Therefore the mean age at first marriage for males has increased since 1996 to 2011 reaching 32 years, Furthermore, there is variation in the age at first marriage by population group with the Black Africans (33.4 years) and Coloured (30.7 years) marrying later compared to the Whites (28.8 years) and Asians (29 years) in 2007.

During 2011, the mean age at marriage was low (27.7 years) for the coloured population group compared to other population groups. Generally figure 2 below shows that the mean age at first marriage has decreased from 33.4 to 31.7 years for the Africans, 30.7 to 27.7 years for the coloureds, 29 to 28.7 for Asians and has increased for the whites from 28.8 to 29.9 years during 2011.

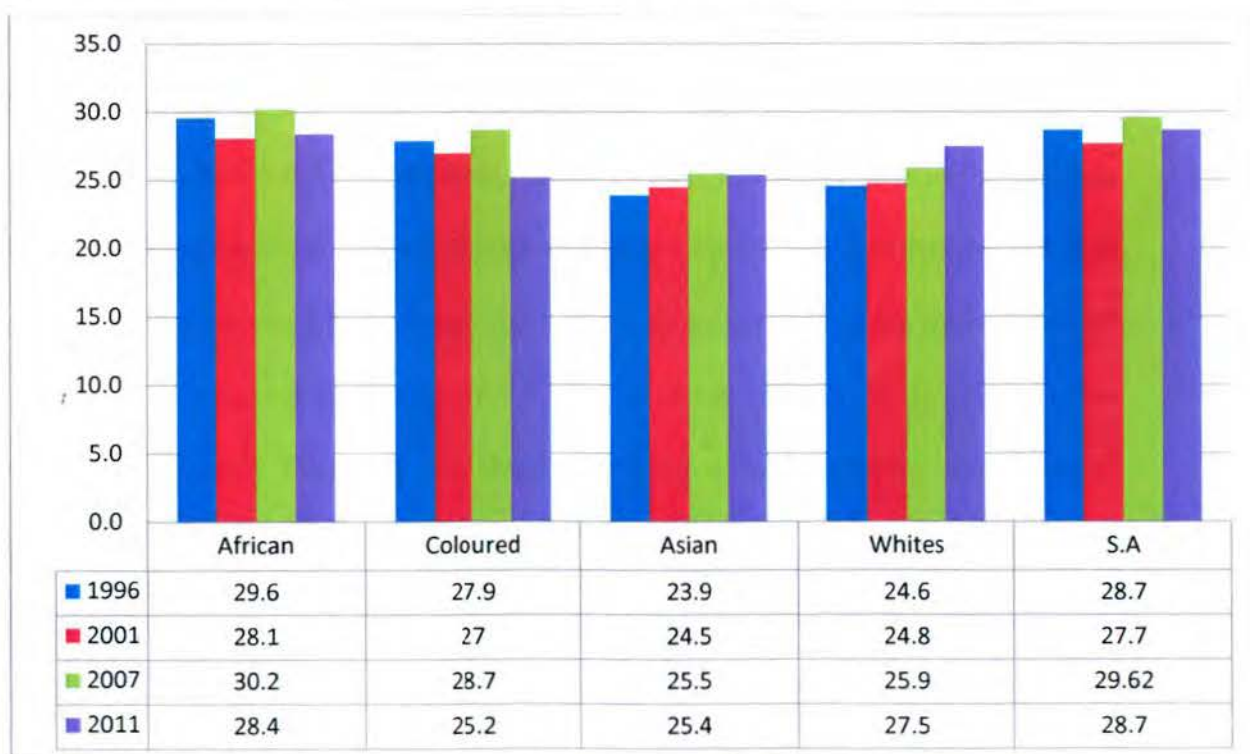
Figure 2: Singulate Mean Age at Marriage (SMAM) for Males-1996-2011



STATSSA, censuses (1996-2011) and Community Survey data (2007). SMAM estimated by Palamuleni (2010).

The average age at first marriage for South African women was 28.7 years in 1996, 27.7 years in 2001, 29.6 years in 2007 and 28.7 years in 2011 based on figure 3 below. Therefore the census 2011 results show that there was a slight decrease in the mean age at marriage during 2007 and 2011. Based on figure 3 below, the 2007 community survey data has shown that Black African and Coloured women postpone marriage compared to Whites and Asians. The 2011 census data also shows that Africans postpone marriage compared to other population groups. Noteworthy, based on census and survey data, it also shows that, in general, females marry earlier than men in South Africa. Generally the 2011 census data depicts that age at marriage has decreased for all population groups and for women in general. Therefore on average South African men marry around age 32 whereas women marry around age 28. This means that marriage does not take place at very early ages (below 20 years).

Figure 3: Singulate Mean Age at Marriage (SMAM) for Females-1996-2007



STATSSA, censuses (1996-2011) and Community Survey data (2007). SMAM estimated by Palamuleni (2010).

The observed differences for the Single mean age at marriage for all the censuses and the 2007 community survey may be due to methodological changes and the interpretation of marriage questions by different population groups. For instance, the SMAM calculated based on the censuses (1996, 2001 and 2011) data correlates with each other but it appears that it does not fit well with the 2007 community survey data. The graph above shows a high mean age at marriage during 2007 and a decrease in the mean age at marriage during 2011. Hence the methodology and other factors used may have had an impact as the censuses were a total count of the population while in 2007 a community survey was conducted, not a census.

According to Udjo (2002), the SMAM values for 1996 give the impression that South Africa has about the highest mean age at first marriage in the world; however, it should be pointed out that SMAM values for South Africa compared favourably with those of neighbouring countries. Furthermore, there are variations in SMAM by province; for instance Kwa-Zulu Natal has the highest mean age at marriage whereas Gauteng has the lowest mean age at marriage. The provinces can be ranked as follows: KwaZulu-Natal, North West, Eastern Cape, Mpumalanga, Northern Cape, Limpopo, Western Cape, Free State and Gauteng. Udjo (2002) also pointed out that the observed differences by province “may partly be a reflection of varying degrees of inaccuracies in the interpretation of the marital status question in these provinces during the census”. Therefore one should be cautious in interpreting the observed provincial differential.

As noted earlier, the overall mean age at first marriage is very late among African and Coloured males and females (above 27 years), compared to the moderately high mean

age at first marriage among Indians and Whites (24-27 years) (Palamuleni, 2010). The observed mean age at first marriage suggests that on average, among African, Indian and Whites, males tend to be 2-3 years older than their spouses while among Coloureds, the difference in age at first marriage tend to be 1 year on average. The advantage of the minimal age between spouses is that it influences better communication between spouses. That in turn leads to more stable marriages. The above statement was also supported by Amoateng (2004) when he noted that, “even though South African women may be relatively slow to marry, once they tie the knot they tend to be committed to the institution of marriage”. In South Africa, marriage is much more likely to be dissolved through death than through divorce (Amoateng, 2004).

There are a number of factors that one could suggest for the increase in the age at first marriage in South Africa. Firstly, the movement towards late marriage may be due to the increase of the new phenomenon of individuals who are living together like married partners (Cohabiting). The male population who reported to be cohabiting increased from 5.4% in 1996 to 8.5% in 2001 and 8.4% in 2007 while for female population was 5.7%, 8.9% and 8.5% respectively (Palamuleni, 2010). Therefore cohabitation is becoming quite popular in South Africa, especially among the younger generation of South Africans and it is also a popular life-style among young adults above the age of 25 years (Palamuleni, 2010). Furthermore this emerging phenomenon (cohabitation) is now viewed as a substitute for legal marriage. The danger with regards to cohabitation is that it poses a greater challenge to the institution of traditional marriage than does divorce. This is because although both events undermine the permanence of marriage as an institution, only cohabitation can

replace marriage with an alternative institutional form. The increasing rate of cohabitation observed can be closely linked to the payment of lobola. Lobola is the payment of a price to the parents of the bride before marriage is sanctioned. In years gone by lobola used to be in the form of cattle, but in most cases today this payment is in the form of cash. The payment of cash may be over a period of years and the couple may not regard themselves as fully married before full payment even if they already stay together. Again, in the olden days, Lobola used to be a standardised token given by the husband to the family of the prospective wife, but now it has been commercialized and linked to the educational status of the prospective wife. This has resulted in a high cost of getting married that leads to many poor people not being able to afford to pay, and resulting in cohabitation which results in the increase in the age at first marriage.

Secondly, the legacy of apartheid laws can also be blamed for the racial differentials observed in the age at first marriage in South Africa. Apartheid rules made it illegal for African men and women to live together as husband and wife, which often resulted in break-up of families after they have been formed or for many family units to never be formed. According to Gaise (2000), available evidence suggests that colonisation and apartheid affected many facets of life including education, labour participation and migration patterns. Moreover, Christianity, western education, trade and labour migration transformed the traditional marriage system.

Migration played a part as men were forced to leave the land because of its inability to provide any subsistence, and hence men migrated to cities as poorly paid labourers. During the long period of their youthful, sexually active lives, men and women had to

live apart. During apartheid, men would only be allowed to visit their families during the annual two week holiday when migratory workers were allowed to visit their homelands. Moreover African men's access to education was restricted which led to the unavailability of high quality marriageable men, leading to low marriage rates. Therefore the social cohesion of the family was dismantled by labour migration, and the long absence of the man or husband from home resulted in the women having greater personal freedom as well as increased domestic responsibility (Gaise, 2000).

2.5 Determinants of Age at Marriage

Existing research indicate that age at first marriage is influenced by a number of social and economic factors. For instance in Kenya, age at first marriage was associated with educational level, premarital sexual activities, premarital childbearing, region of residence, religion, and year of birth (Ikamari, 2005) while in Addis Ababa, age at first marriage was associated with occupation, education, place of residence and wealth index (Gurmu and Mace, 2013). Other studies elsewhere also found education, region, age, ethnicity, age at first sexual intercourse and HIV prevalence as the most important determinants of the age at first marriage (Palamuleni, 2011; Ayiga and Rampagame, 2013; Agaba, Atuhaire, Rutaremwa, 2006; Bongaarts, 2006; Adair, 2007).

2.5.1 Educational Level

A study done by Ikamari (2005) in Kenya found that education has a statistically significant and strong positive effect on a woman's age at first marriage. The study revealed that the chance of first marriage was 56 percent lower for women with primary education compared with those with no education. Furthermore the chance was 69 percent lower for women with at least secondary education. Other researchers

(Palamuleni, 2011; Rose, 2003; Agaba, Atuhaire, Rutaremwa, 2006; Ayiga, Rampagane, 2013; Gurmu and Mace, 2013) also found that education has an effect on the age at first marriage. Therefore a highly positive correlation between schooling and marriage age is widely accepted, and there is also an argument that higher education is a causal factor for postponing age at first marriage (Bruderl and Diekmann, 1997). In West Germany, for example, the expansion of higher education has shifted the median age at marriage upwards by a magnitude of almost one year (Diekmann 1990). According to Bruderl and Diekmann (1997) school enrolment delays marriage, which stresses the argument that education affects the timing of the marriage process; however there has been a debate whether education shows an additional intensity effect, especially for women. Some authors argue that highly educated women are economically independent and are therefore able to refrain from marriage. This independent hypothesis asserts that increasing education not only delays marriage, but in addition lowers marriage intensity (Bruderl and Diekmann, 1997).

Other authors, according to Bruderl and Diekmann (1997), argue that women and men with higher education are more attractive marriage partners because they have high wages. Thus the attractive hypothesis contends that education should increase marriage intensity (Blossfeld 1995; Oppenheimer and Lew 1995). Basically they argue two things; firstly, that highly educated women show high marriage intensity. Secondly, that rising educational attainment cannot be taken as a significant factor in the decline of the age at first marriage. According to Jejeebhoy (1995), education is the single factor most strongly related to the postponement of marriage age, but the relationship may be subject to threshold effects. In many countries, the tendency for

education to increase the age at marriage became universal only after a few years of primary education. However, because the results of the few studies available are contradictory, little can be said about trends in the relationship between education and age at marriage over time (Jejeebhoy 1995). There are several ways in which education may affect the timing of marriage; the highly educated spend many years in school and college receiving instruction and knowledge (Ikamari 2005). When enrolled in school or college, it is not desirable or feasible for students to marry as it is disruptive; and generally young people lack the financial resource and the prospect of a stable income that would be ideal for marriage and forming a family (Dixon 1971; Oppenheimer 1988; Goldscheider and Waite 1991).

The above statement was also supported by Thornton et al. (1995) giving three arguments. Firstly, students are not yet prepared for adult roles, secondly, school demands time that is not available for other roles, and thirdly, that there are normative expectations that married people should be financially self-sufficient. Furthermore, there are usually strong norms preventing persons in school from marrying or even from forming co-residential partnerships (Blossfeld and Huinink, 1991; Blossfeld and Jaenichen, 1992; Thornton et al., 1995). Therefore being a student and spousal roles are incompatible; hence school enrolment is an impediment to the age at first marriage.

Becker (1991) provides basic arguments that can provide an explanation for the correlation between education and marriage age in his version of family economics theory. Family economics explains both how the basic economic concepts like division of labour, distribution of wealth, and decision-making occur within the

family and tries to explain some concepts unique to the family, such as age at first marriage, the decision to have children and family size using economic concepts. Becker (1991) assumes that marriage will occur if for both partners, the welfare gain of a married household can be achieved above all by the possibility of a permanent emotional and sexual relationship, insurance against risks, economics of scale on joint use of household capital, tax incentives and specialization of household members in market and household work.

According to Becker, people utilize a rational decision making approach to marriage, and marry in order to maximize their mutual economic benefit. Specialization and exchange hypothesis is most important in the theory of family economics. According to the “comparative cost advantage”, specialization gain can be realized if the relative productivity of the marriage partners differs concerning household and market work. Under this condition marriage partners can realize higher welfare gains through a division of labour. There are two patterns of which specialization may occur, namely the traditional pattern and the modern pattern, which greatly influences age at marriage. But according to Becker (1991), specialization profits are realizable to the same extent if the wife shows higher productivity than the husband in the job market and if the division of labour is practised contrary to the traditional pattern.

However, if women during their socialization attain more household skills and in choosing training opt for the housekeeping role in greater numbers than men, then the traditional gender-specific pattern of labour division dominates (Bruderl and Diekmann, 1997). Under the traditional pattern of division of labour, the specialization hypothesis predicts the influence of education and training on marriage

age. Two causal paths are evident, the “institutional effect” and the “human capital effect”. The institutional effect hypothesizes that people of both genders show a greatly reduced tendency to marry while attending educational institutions. Under a traditional division of labour, the role incompatibility argument implies that women especially, will quit school if they marry.

However, women quitting school results in considerable opportunity costs because a further accumulation of human capital is sacrificed and future earning power is curtailed (Marini 1984). According to Oppenheimer (1988), the future economic position of a man remains uncertain as long as he is in training, which reduces his attractiveness on the marriage market. The other path looked at based on the family economics is the human capital effect, which has an additional, permanent influence on marriage behaviour, fertility and marriage stability after the end of training. Given the traditional division of labour and as long as training is convertible into higher wages, a gender-schooling interaction effect on the tendency to marry can be predicted (Bruderl and Diekmann, 1997). From the family economics, it is postulated that, for women, a longer education increases age at first marriage both during education (institutional effect) and after the degree has been obtained (human capital effect). For men, family economics hypothesize a delaying institutional effect as well, but the human capital effect should decrease age at first marriage (Bruderl and Diekmann, 1997).

Interest in marriage and starting a family is lower among women with a longer training period, because women with high earning power bear higher opportunity costs if they forego professional activities entirely or in part (Klaauw, 1996).

According to Goldscheider and Waite (1991), even if they do not give up gainful employment after marriage, the double burden often observed results in higher cost. Therefore it is expected that higher educated women show a reduced tendency to marry (a negative human capital effect). The institutional effect hypothesises that the onset of the marriage process is delayed by staying in educational institutions, as school attendance mainly removes the girls from the domestic environment and offers literacy and exposure to new ideas and value systems that may compete with the traditional customs, values and beliefs that promote early marriage (Westoff,1992; Caldwell et al.,1983).

By exposing girls/women to non-traditional roles and providing them with the means to establish viable alternatives to early marriage, education expands the women's life opportunities and choices (Ikamari 2005). According to Ikamari (2005), the effect of education on the timing of marriage may relate to the development of value orientation and aspiration that give priority or preference to personal fulfilment and career development over traditional roles or early marriage and childbearing. A marriage is likely to be delayed or postponed when it is incompatible with the attainment of one's personal goals and ambition (Bracher and Santow, 1998). Furthermore education may affect the time of marriage through its influence on how the educated perceive themselves and how the society perceives them, and the perception about the value of children in a modern society (Caldwell et al., 1983). In the traditional society, women often relied on marriage and childbearing as avenues for gaining social status, respect and power in the household as well as in the community arena (Caldwell and Caldwell, 1987).

Therefore early marriage and childbearing were highly valued in many traditional societies (Ikamari 2005). According to family economics, it is more likely that higher education increases the tendency for men to marry because these men profit most from a marriage with a traditional division of labour. This is because, under a traditional division of labour, highly waged men are more attractive marriage partners, because a prospective house-wife will gain more from such men. Therefore highly educated men may have higher rates of marriage (Bruderl and Diekmann, 1997).

The Modern society contradicts the statement that highly educated men show high marriage rates. This is because in the modern society both men and women with higher education are remaining single because the specialisation gains of marriage no longer offset its opportunity costs (Bruderl and Diekmann, 1997). This is because firstly, a tendency can be detected that household work of younger people is divided more equally, though this is mainly the result of women's reduction of the time budget spent on household work (Kunzler 1994; Presser 1994). Secondly, many goods formerly produced in the household can nowadays be replaced by market products or paid market work from ready-to-serve meals to household help and childcare.

All these developments reduce the opportunity cost of marriage for women with high earning power, because for them marriage is no longer linked to giving up a job, and often, even in the case of motherhood, only a brief interruption is observable (Gustafsson et al., 1996). In addition, with increasing wages it becomes advantageous to stay in employment and purchase household goods and services in the market, but these changes have opposite effects for highly educated men because they can no

longer profit from a housewife (Bruderl and Diekmann, 1997). Thus, the human capital effect might become negative for men too; therefore, highly educated men will also show a low propensity to marry (Bruderl and Diekmann, 1997). A negative human capital effect means that people with higher education have permanently lower marriage rates.

Other studies have looked at the educational effect on marriage by the proportion that never marry. According to Bruderl and Diekmann (1997), an institutional effect alone only postpones age at first marriage, as later these people will marry as did their lower educated counterparts. Hence the proportion never marrying should not increase especially since there is no biological limit to marriage age. An institutional effect might also show up in the higher proportions never marrying because the highly educated, especially women, will find no partner (Bruderl and Diekmann (1997). The above argument neglects the fact that, at an older age, there are many single men who also delayed marriage while in school. Therefore Bruderl and Diekmann (1997) concluded that an institutional effect will not show up in the proportion of those never marrying. On the other hand, a negative human capital effect affects the proportion never marrying. Many highly educated people will not gain from marriage and thus more of them will not marry at all.

Therefore the proportion of never married women should increase with education while the proportion of never married men should decrease. This will result in a marriage market where high proportion of well educated women and low educated men stay single.

2.5.2 Labour Force

Empirical findings suggest that the income effect is relevant for men, and that men's employment stability and earnings are positively related to the transition to first marriage (Oppenheimer 2003; Oppenheimer, Kalmijn and Lim 1997; Teachman 2007). Agaba, Atuhaire, and Rutarcwira (2006) and Gurmu and Mace (2013) found that age at first marriage varies by occupation in their bivariate analysis for women in Uganda and Addis Ababa. In Addis Ababa women engaged in the manual and unskilled work were observed as having statistically significant higher chance of marriage as compared to those who engaged in skilled and semi-skilled work. Furthermore, women who engaged in domestic work had an extremely low chance of marriage of about 94 percent (Gurmu and Mace, 2013). In the United States, men who have a continuum of stable employment have the highest odds of first marriage while women tend to reduce their economic activity in anticipation of or following marriage (Liat Raz-Yurovich, 2010).

Family economics has also pointed out labour force participation, especially for women, as a factor that contributes to the variation in age at first marriage rates (Becker, 1982). Researchers have drawn theories to explain the relationship between age at first marriage and the labour force, hence there has been much debate about the consequences of women's increased economic status or independence on family formation. Of particular note is the movement of women, particularly married women and mothers of young children into the labour force (Goldin 1990). According to Torr (2007), the dramatic increase in women in the labour force led to an increase in women's economic status. Specialization and exchange theorists argue that greater economic status should decrease the likelihood of marriage for women, but increase it

for men. Thus, an observed decline in marriage rates results from women's increased status and independence (Becker 1982).

In contrast, theorists who focus exclusively on the current similarity of men and women in the labour market argue that, since men and women now have similar roles in the labour market, they should also show a similar (positive) relationship between economic status and marriage age (Oppenheimer 1988; Sweeney 2002). This approach suggests that declining marriage rates result from increases in economic disadvantage especially for men rather than increases in independence (Torr 2007). According to Torr (2007), empirical research consistently finds a positive relationship between economic status and marriage for men, while the evidence for women is mixed. Previous research has reported a negative relationship (Bennett, Bloom and Craig, 1989; Raymo and Iwasawa 2006), no relationship (Bloom and Bennett 1990), and a positive relationship (Goldstein and Kenny 2001; Sweeney 2002) between economic status and age at first marriage for women. Therefore the relationship between economic status and marriage for women varies depending on the gender role context (Torr, 2007).

According to Hewlett (2004), the rule of thumb seems to be that the more the successful the woman is, the less likely it is that she will find a husband, but for men the reverse is true. In response to Hewlett, Maureen (2004) stated that men run away from challenging women because they have a desire to be the superior force in a relationship. The question that can be asked is; how do women's and men's economic activities levels and their educational attainment affect their propensity to marry for the first time? According to Becker (1991), Cherlin (2000), and Oppenheimer (1988),

there is a connection between economic activity and the delayed marriage age. They have raised the question of what role women's growing participation in the labour force and the decline in young men's economic activity levels play in age at marriage. Raz Yorovich (2010) investigated men's and women's economic activity and first marriage focusing his argument on the two most important hypotheses namely, women's economic independence hypothesis and men's economic stability hypothesis.

Under the hypotheses for women, various studies have analysed the relationship between economic activity levels and educational attainment, and transition to first marriage, and have suggested that women's earnings, economic activity and education have a negative effect on marriage age. According to Becker' (1991) hypothesis of women's economic independence, women's earnings negatively affect their propensity to marry for the first time. Gary Becker (1991) claims that the gain from marriage is reduced and hence the attractiveness of divorce is raised by higher earnings and participation of married women in the labour force. According to Becker (1991), the reduced gain from marriage would make marriage less advantageous to both partners which will lead to the decline in marriage rates. This is expected to happen because women's incentives to marry decline when they are no longer dependent on men's income which is presumed to be the case when there is a high degree of specialization in gender roles.

According to the hypothesis, the reduced gain from marriage for both men and women would make economically independent women less attractive for marriage. Therefore, the women's economic independence hypothesis was interpreted by other

scholars such as Goldstein and Kenny (2001) and Oppenheimer (1994) as a theory explaining the retreat from marriage. Becker's reasons for lower rates of marriage was questioned by other scholars who claimed that the recent decline from marriage rates signals not a retreat from marriage, but rather a delay in marriage timing (Blossfeld and Jaenichen 1992; Goldstein and Kenney 2001; Oppenheimer, Kalmijn, and Lim 1997). Blossfeld's (1995), Ono's (2003) and Raymo's (2003) findings qualify Becker's claim and suggest that in societies that are characterized by highly asymmetric gender roles, where there are structural and normative limitations to combining family and career, economic resources and education not only postpone marriage but also reduce the chance of marriage for women.

A number of studies that have tested the women's economic independence hypothesis have reached the conclusion that Becker's theory was relevant to his times or at the time where there was high degree of specialization in sex roles, but now it is outdated in most industrialized societies where role differentiation by gender is low (Bracher and Santow 1998; Cherlin 2000; Goldstein and Kenney 2001; Ono 2003; Oppenheimer 1994, 2000; Sweeney 2002). But Oppenheimer (1988) came up with another theoretical perspective called the search hypothesis, which predicted that the effect of women's earnings and education on the odds of early first marriage would be negative. The search hypothesis states that there is a negative relationship between women's earnings and education on the age at marriage. The greater economic independence of women allows them to engage in a more prolonged process of mate selection in marriage markets and also to set higher minimum levels of acceptability for a potential spouse (Oppenheimer 1988). Oppenheimer's search hypothesis implies that the negative effects of these characteristics are not only due to their effect on the

delay in marriage, but that inherently, an income effect can be observed in which women's economic status and education represents positive personal attributes that are taken into account by men in the mate selection process. According to Cherlin (2000), the specialization model is no longer relevant since the basis of intimate relationship has changed from specialization and household production to income pooling and household consumption. Women's earnings have come to represent a necessary and prominent contribution to family income "as a response to stagnant male income and to rapidly rising housing prices" as well as due to "rising material expectations" (Cherlin 2000).

According to Rogers (2004), a woman's salary is expected to be positively related to the propensity to marry since higher shared income will allow the spouses to maintain higher standards of living and also help to support one another in times of hardship (e.g. illness, unemployment, educational enrolment, etc.). Therefore this will make women with higher earnings and educational levels more attractive in the marriage markets of countries that experience economic growth and in which dual-earning families are common. Some studies found that women's economic independence (as measured by both salary or income and the educational level) is positively related to the propensity to marry for the first time, controlling for enrolment in education (Bracher and Santow 1998, Ono 2003; Sweeney 2002; Thornton, Axinn and Teachman 1995). The above arguments have been based on the hypothesis for women economic independent.

Under the hypothesis for men, which is men's economic stability levels, it is suggested that, as long as the economic role of men is fundamental and central to the

family income, the timing of young men's transition to stable and economically rewarding employment will remain a major factor affecting age at marriage for both men and women (Oppenheimer 1988). Therefore an alternative explanation for marriage trends is a result of the decline in men's economic status (Oppenheimer 1994). The decline in the economic status of young men also explains the emerging positive association between women's earning potential and their likelihood of marrying, because as young men's earnings have declined, they have come to favour women who can contribute to the household income and supplement their reduced earnings (Cherlin 2000).

The men's economic stability hypothesis and the income-pooling hypothesis overlap because they suggest that both men and women want a spouse who can contribute significantly to the family income. According to Wilson (1987), the decline in the number of black men who are able to support a family is a major source of the increase in marriage age among blacks. This was his major finding when he used the current employment as a proxy for a man's ability to support a family and to construct the "male marriageable pool index".

2.5.3 Ethnicity and Language of Respondents

Various studies have shown that women's age at first marriage varies by ethnicity (Palmore, 1983; Arnaldo, 2004; Agaba, Atuhaire and Rutarcwa, 2006; Ayiga and Rampagane, 2013; Palamuleni, 2011), and therefore can be considered as the most important predictor of age at first marriage. For instance, a study of age at first marriage for women in Malawi has shown that there are variation in the age at first marriage by ethnic group where the Sena, Nkonde and Ngoni are 1.3, 1.0, and 1.1

times more likely to marry before 18 years while the Chewa are 25 times more likely to marry after age 18 (Palamuleni, 2011). Furthermore, in Uganda, the Iteso/Karamajong married later and the Luo married earlier than all other ethnic groups (Ayiga et al., 2013). Ethnicity was found to be the most important predictor of age at first marriage also in Malaysia and Mozambique (Palmore, 1983; Arnaldo, 2004).

In an attempt to better understand the variation in the age at marriage by ethnic groups, researchers (Wilson, 1987; Brien, 1997 and Lichter et al, 1992; Angrist (2002; Wood (1995) have investigated sex ratio imbalances and the competition in the marriage market by different ethnic groups, and have reached a conclusion that lack of marriageable men competing in the marriage market is a factor leading to variation in the age at marriage by ethnic groups. For instance in the United States, the shortage of economically attractive “marriageable men” and the shortage of prospective marriageable partners due to sex ratio imbalances as well as the black and white differences in marriage markets have been researched extensively.

In terms of defining “marriageable men”, Wilson (1987) used the current employment status of young men to define marriageable men while Lichter et al (1992) used three definitions of marriageable men: men who are in full-time employment; men who are full time employed; and men whose income is above a certain threshold. Brien (1997) used five definitions of marriageable men by using all men; all employed men; all men enrolled in school and who were short term unemployed; all men who are full time employed; and lastly all men with earnings above a certain amount. Angrist (2002) used the United States, 1920 and 1940

censuses data on immigrants to study the effect of changing sex ratios among immigrants by ethnicity. His findings revealed that higher sex ratios are associated with higher marriage rates which decrease the age at first marriage for both men and women and cause men to marry sooner and also give them incentives to become more attractive (Angrist 2002). Brien (1997) did a similar study using the same data and concluded that the ratio of marriageable men to women within specific geographical areas plays an important role in the decision to marry and variation in the marriage age. However, Wood's (1995) findings using US census metropolitan level statistics (1970-1980), suggested that the shrinking pool of high earning young black men explains little of the increase in the age at first marriage for the black population.

He blamed the increased economic opportunities for black women for the increase in the marriage age for the black population. Lichter et al (1992) opposed this point since his results indicated that economic independence of women is positively associated with entry into marriage. All the above authors came up with different reasons for the decline in marriage rates and high age at marriage and came to the conclusion that, since marriage encourages employment, and since the definition of a marriageable man is a man that is able to support his family, then it is better to use income as a definition of a marriageable man rather than his employment status (Brien, 1997; Wilson, 1987; Wood, 1993). The above argument generates the conclusion that the increase in marriage age is due to a possible shortage of marriageable men (Gustafsson and Worku, 1997).

Based on the conclusion that high age at first marriage is associated with shortage of marriageable men, South Africa offers a particular interesting opportunity to explore

the relationship between marriage markets and marriage outcomes. Two important issues raised by Posel and Casale (2009) in their study “sex ratio and racial differences in marriage rates in South Africa”, is that firstly, there are significant racial disparities in labour market opportunities in post-apartheid South Africa, as unemployment is markedly higher among African men than among white men and that earnings of black men remain significantly lower. According to them, racial differences in sex ratios which incorporate the economic status of men are therefore far more pronounced than differences in simple sex ratios. Secondly, in many African marriages bridewealth, usually called Lobola, is paid by the prospective husband to his wife’s family to validate the marriage.

This payment which is considerably larger than the mean monthly earning of African men (Casale and Possel 2009), suggests that economic status may be particularly important in identifying the marriageable pool of African men. Therefore, high age at first marriage among African women reflects not so much a shortage of available (unmarried) African men, but a shortage of “marriageable” men (Posel and Casale 2009). This conclusion came as a result of the investigation done by Posel and Casale (2009), who investigated the large racial differences in marriage rates in South Africa, testing whether economic-based measures of “marriageability” which take into account the quality of available men, perform better in predicting marriage than simple sex ratios which capture only the quantity of unmarried men relative to women in local marriage markets.

Their results revealed that the probability of marriage among young African women is positively and significantly related to the local pool of unmarried African men, but

that the effect is strongest where these men are employed and earning an income above a certain threshold. But only weak evidence to link the “marriageability” of white men according to their economic status to the probability of marriage among young white women was found.

In South Africa, this racial marriage difference between Africans and whites can be explained by the effect of apartheid policies which affected almost every aspect of the social, political and economic lives of Africans. This involved restrictions on the free movement of Africans where the majority of the population was forced into crowded homelands areas and movement to urban areas to work was strictly regulated (Hosegood et al 2009). Men migrated during their youthful days causing instability within marriages. According to Hosegood et al (2009), this had a negative effect on the institution of marriage reinforced by the general acceptance of non-marital childbearing among Africans.

Apartheid also affected the South African labour market by its discriminatory practices leading to most African men being unemployed. Among the employed, African men were far less likely to work in stable, high earning jobs than white men (Posel and Casele 2009). This was supported by the 2001 population census data as it showed that among young African men, unemployment rates are 10 times higher than among young white men, and that on average they earn only a quarter of what white men earn. Therefore the pool of marriageable men available to young African women is considerably smaller than for white women, leading to low marriage rates amongst the African in South Africa. In support of this theory, Lichter et al (1992) and Wood (1995) state that one of the factors affecting the probability of marriage is the

availability of potential marriage partners with suitable characteristics in local markets.

For each individual the suitability or “marriageability” of potential partners is judged against what has been referred to as the “reservation quality partner” (Lichter et al, 1992), taking a partner who has some minimum level of characteristics without which the marriage will not be accepted. In addition to certain demographic characteristics such as age and race, the economic attractiveness of potential male partners is one of the qualities commonly assumed to determine the reservation partner for women (Posel and Casele, 2009). Women may only consider marrying men who have achieved a minimum acceptable level of current labour market success, as this success provides some indication of a man’s future earnings potential (Wood, 1995). This means that a woman’s reservation offer in the marriage market may be downwards, even if marriage markets do not clear, women will not accept marriage offers from men who do not meet some minimum criterion (Posel and Casele, 2009).

Therefore for African women, the requirement of a financially suitable marriageable partner may be driven not just by the expectation for the male to be the breadwinner or at least a significant contributor to household economic resources but further by the need for the man to afford Lobola. The literature shows that there is a large imbalance between the demand for and supply of marriageable men, meaning that some proportion of women participating in the marriage market will not get married. It is therefore expected that the availability of marriageable men defined in terms of their economic performance, will be an important reason why age at marriage is higher among African women than among white women (Posel and Casele, 2009).

2.5.4 Pre-Marital Fertility

An investigation by Bennett, Bloom and Miller (1995), found a negative association between nonmarital childbearing and the subsequent likelihood of first marriage in the United States. Some studies elsewhere have also shown that the presence and sometimes the number of ex-nuptial children reduce women's likelihood of marrying (Chiswick and Lenher, 1990; Teachman and Heckert, 1985; Bennett et al., 1995). In Kenya, having an ex-nuptial birth is associated with a lower chance of marriage due to the fact that it is not culturally and socially acceptable for a young man to marry as a first wife a woman who already has a child (Ikamari, 2005). According to Ikamari (2005), the chance of first marriage is 50 percent lower for women with an ex-nuptial birth compared to those with no ex-nuptial birth. Having an ex-nuptial birth lowers the chance of marriage by 59%, 46% and 43% for the 15-29, 30-39 and 40-49 age groups respectively (Ikamari, 2005).

Bennett, Bloom and Craig (1989) found that never-married women who had an out-of-wedlock first birth were considerably less likely to marry by age 30 than their counterparts who did not have such a birth. Moreover they found that women who bear a child outside marriage and who receive welfare have a particular low probability of marrying and also stressed that nonmarital childbearing does not appear to be driven by low expectations of future marriage, rather it tends to be an unexpected and unwanted event, whose effects on a woman's subsequent likelihood of first marriage are negative on balance, after determining the direction of the causation. The causality was determined after considering whether having a child outside marriage decreases the likelihood of future marriage, or whether poor marriage prospects or lack of desire to marry increase the likelihood that a woman

will have a child out of wedlock. The hypothesis implied by the above question suggests that unmarried women tend to defer their childbearing plans if they perceive that an adequate supply of appropriate men is available for marriage. Women who do not believe that such a pool of men exists will tend to have children more immediately without waiting for a suitable spouse to present himself. The research conducted by Bennett, Bloom and Miller (1995) further explained reasons why never-married women with children are less likely to ever marry, by exploring the amount of time available to women of different statuses to engage in work and social activities most closely related to the marriage market.

They tested the hypothesis that single women with children spend less time in work and social activities than those without children, and thus have less opportunity to meet potential spouses. The results revealed that unmarried women with children spend less than two hours fewer per week than their childless counterparts, thus the presence of children seems to diminish the likelihood of marriage, but apparently does not do so by crowding out marriage market activities (Bennett et al., 1993). Lee and Harris (1995) used the Add Health data to examine whether and how nonmarital first births exert influence on the formation of first marriages among a current cohort of young women in the United States.

Their argument was that the presence of a child tends to decrease marital prospects for unmarried mothers not only because it imposes constraints and time limitations on those who engage in marriage markets but also because it presents untenable burdens to potential spouses. Their other argument was that nonmarital childbearing is not likely to be a major cause of lower marriage rates among unmarried mothers given

their disadvantageous background and the scarcity of “marriageable” men, implying nonmarital childbearing as an alternative family-building strategy to marriage. Bennett, Bloom and Miller (1995), Graefe and Lichter (2002), Lichter and Graefe (2001) had documented that women who have nonmarital births are less likely than single, childless women to enter marriage and argued that this result is insensitive to selection bias.

According to Bennett, Bloom and Miller (1995) it seems reasonable to hypothesize that out-of-wedlock childbearing influences a woman’s likelihood of marriage. Whether or not that they were born outside of marriage, children may be perceived by prospective husbands as a financial and emotional burden, and again they also may limit a woman’s ability to search for a marriage partner or possibly reduce her interest in finding such a partner. Contrary, the presence of children might increase a woman’s desirability to prospective husbands who are attracted by instant parenthood or by parenthood of non-infant children or of their own biological children. Moreover, an unwed mother interested in attracting a husband might be willing to go to greater lengths to find a spouse or to make herself attractive as a spouse, thereby increasing her likelihood of marriage (Bennett, Bloom and Miller 1995).

2.5.5 Age at first Intercourse

According to Ikamari (2005), age at first sexual intercourse is significantly associated with women’s age at first marriage and is depicted as enhancing the pace of marriage. Women who initiate sexual debut before the age of 20 are significantly more likely to enter marriage earlier than those who start sexual activity when they are at least 20 years old. Furthermore, women who have no sexual experience are significantly less

likely to marry early compared to those who are sexually experienced (Ikamari, 2005).

2.5.6 HIV/AIDS Status

Studies indicate that women who marry late may have increased risk of HIV infection because of the longer period between first sex and first marriage (Bongaarts, 2006; Adair, 2007). Bongaarts (2006) assessed the potential role of the age at first marriage (late age at marriage) and a long period of premarital sexual activity as a population risk factor for HIV infection for Sub-Saharan countries. The ecological data indicated that countries in Southern Africa with very late age at marriage also have large epidemics. For instance, the four highest median age at first marriage are found in Botswana (25.7), Swaziland (25.8), South Africa (26.7) and Namibia (28.9), these four countries have some of the largest HIV epidemics in the world. Furthermore, the correlation between HIV prevalence and the median age at first marriage for these countries is positive and highly significant.

According to Bongaarts (2006), the risk for HIV infection among sexually active women is higher before than after first marriage and this result supports his hypothesis that a high average age at marriage in a population leads to a long period of premarital sex during which partner changes are relatively common, thus facilitating the spread of HIV. Adair (2007) used the 2004 Cameroon DHS to test whether the risk of HIV infection for post-adolescent women aged 20-29 is positively related to age at first marriage. The results had shown that for currently married women aged 20-29 in Cameroon, marriage at age 20 and above predicts a greater likelihood of being HIV positive than marriage at age 16. The higher risk of HIV

among late marrying women is explained by their period of premarital sexual intercourse (Bongaarts, 2006)

2.5.7 Age of Respondent

According to Shryock and Siegel (1976), current age of the respondent is the most important variable in demographic analysis mainly because vital events such as marriages and divorce, fertility and mortality are a function of age. Studies (Palamuleni, 2011; Ikamari, 2005; Gurmum and Mace, 2013) have shown that the age of the respondent has a significant association with the age at first marriage. For instance, in Malawi, age at first marriage is higher among older women than younger women (Palamuleni, 2011). Moreover age at marriage is higher among women aged 20-44 relative to younger women. The odds indicates that women aged 15-19, 20-24, 25-29, 30-34, 35-39 and 40-44 years were 96, 19, 20, 18 and 23 percent respectively and are less likely to marry after the age 18. Ikamari (2005) and Gurmum, Mace (2013) had also indicated that age at first marriage is higher among the older cohort of women and that it seems that traditional norms and values that dictated early marriage have become eroded overtime.

2.5.8 Type of Place of Residence

Previous research has found that there is a negative association between place of residence and age at first marriage (Palamuleni, 2011) while others have found a positive relationship between place of residence and age at first marriage (Ikamari, 2005). For instance in Kenya, rural residence is associated with a slightly higher risk of first marriage; rural woman were 1.13 times as likely as urban woman to enter in to a first marriage. Furthermore, place of residence had a significant effect only for the

30-39 year age cohort where rural women had a higher risk of first marriage compared to urban women. Later age at first marriage in Addis Ababa was observed among women who were born and lived in Addis Ababa (Gurmu and Mace, 2013)

According to Ikamari (2005), the type of place of residence can be taken as one of the determinants of age at first marriage as rural areas generally are associated with early marriages. This is due to the fact that people in urban areas are exposed to a more diverse life style and subject to a weaker social control than those in rural areas. Comparing rural and urban areas, rural areas have institutional and normative structures such as the kinship and extended family that promotes early marriage and childbearing (Goode, 1963; Dixon, 1971; United Nations, 1988, 1990). These structures are not found in urban areas and, most importantly, individual responsibility in matters of marriage is emphasized in urban areas. The other distinguishing feature is that people in urban areas develop skills, gain resources and achieve maturity to manage an independent household and thus they have to delay marriage. Moreover, urban women tend to be more educated and engaged in salaried employment than their rural counterparts (Ikamari, 2005).

2.5.9 Childhood Place of Residence

In Kenya and Malawi, studies have shown that women's childhood place of residence is not important in determining the woman's age at first marriage (Ikamari, 2005; Kumchulesi, Palamuleni and Kalule-Sabiti, 2004; Agaba, Atuhaire and Rutaremwa, 2006). The studies have shown that childhood place of residence had a significant effect only for women in the 15-29 and 40-49 age cohort and that in these two

cohorts, women who grew up in urban areas had a slightly higher chance of first marriage compared to those who grew up in urban areas.

According to Ikamari (2005), a woman's childhood place of residence is an important determinant of age at first marriage because the ecological, socio-economic and cultural environment of a woman's childhood place of residence influences her general health and wellbeing and contributes to the formation of beliefs, aspirations and practices that are important during her adulthood.

2.5.10 Region of Residence

Region of residence has been indicated as the most important determinant of age at first marriage, (Palmore, 1983; Palamuleni, 2011, Kumchulesi, Palamuleni and Kalule-Sabiti, 2004; Ikamari, 2005; Agaba, Atuhairi and Rutaremwa, 2006). In Kenya the risk of first marriage was 49 percent higher for the women in Coast provinces, 40 percent higher for women in Nyanza province and 32 percent higher for women in Western province, 19 percent higher for women in Rift Valley province, all compared to women in Nairobi province (Ikamari, 2005). In Uganda, women who resided in Kyenjojo and Kabarole district were more likely to marry later compared to their counterparts in Western Uganda (Agaba, Atuhairi and Rutaremwa, 2006). Studies have highlighted that group norms, ideas and beliefs practised in the region of residence explains variation in the timing of marriage (Goldscheider, 1971; Addai and Trovato, 1999; Arnaldo, 2004).

2.5.11 Wealth Index

The effect of the wealth index (categorised as poor, poorer, middle, richer and richest groups) on the age at first marriage was investigated and studies have shown no association (Ikamari, 2000, Palamuleni, 2011; Agaba, Atuhaire and Rutaremwa, 2006). In Addis Ababa, wealth index is an important determinant of the age at first marriage (Gurmu and Mace, 2013) as late marriage was associated with women engaged in low status or less rewarding jobs such as domestic work. Furthermore, the raw data suggested that in Addis Ababa marriage was taking place later among some of the disadvantaged women. According to Gurmu and Mace (2013), this is due to the fact that the position of domestic servant is extremely “downgraded” among Ethiopian society due to a derogatory meaning attached to the Amharic term ‘gered’ (equivalent to slavery). Therefore, traditionally a gentleman was expected to employ a ‘gered’ but not welcome her for marriage.

2.6 Summary

Literature on age at first marriage and the socio-economic and demographic factors such as age, population group, provinces, age at first birth, age at first sex, wealth status, languages, education, childhood place of residence, type of place of residence, sex of household head, HIV/AIDS status has been examined. The literature has highlighted that education has been found to be the most important determinant of age at marriage in many countries. Other determinants of age at marriage mentioned above differ from country to country.

3.1 Introduction

This chapter discusses the source of data sets used for analysis in this study and is divided into four sections. The first section describes the data source whereas the second section describes the methods of analysis used in this study. The third section describes the variables used in the study and the last section deals with limitations of the study.

3.2 Source of Data

The data for this study is drawn from the 2003 South African Demographic and Health Survey (SADHS). The 2003 SADHS was the second survey of its kind to be carried out in South Africa. The first SADHS was conducted and implemented in 1998 after the National Health Information System of South Africa (NHIS/SA) committee identified the need for improved health information for planning services and monitoring programmes. Comparing the 1998 SADHS with the 2003 SADHS, the 2003 SADHS had more extensive questions around sexual behaviour and included men's module and nutrition and physical inactivity sections in the adult health module.

The primary objective of the 2003 SADHS was to provide up-to-date information on : characteristics of households and respondents, marriage, fertility, contraception and fertility preference, sexual behaviour, HIV and AIDS, infant and child mortality, maternal and child health, mortality and morbidity in adults, utilisation of health services, adults health: hypertension, chronic pulmonary disease and asthma, risk

factors for chronic diseases, oral health and health of older persons. A number of government and private entities were involved in the undertaking of the 2003 SADHS. The Department of Health (DOH) commissioned, co-ordinated and funded the study together with the financial contribution from the Department of Social Development. Issues with regard to fieldwork operations were handled by a research company called Africa Strategic Research Cooperation which appointed the fieldwork personnel to conduct interviews.



The Human Sciences Research Council (HSRC) provided technical input throughout the survey, and was also responsible for quality control of the survey, capturing of data, processing and preliminary analysis of the data. The role of the Medical Research Council (MRC) was also to provide technical inputs, further analysis of the data and to co-ordinated the compilation of the final report. ORCMACRO, funded by USAID, provided technical support in questionnaire design, sample design, field staff training, data processing and analysis. Statistics South Africa (Stats SA) provided the sampling frame and drew the sample of households for inclusion in the survey. The demographic and health survey was chosen because it is the only survey in South Africa currently that had a question on the age at marriage, where we can directly investigate the age at marriage. Other surveys have a question on the marital status and used indirect techniques to estimate the age at first marriage.

The 2003 SADHS covered a national representative sample of 7 041 women aged 15-49 years irrespective of their marital status as both never married and ever-married women were covered, and also all the nine provinces were included in the sample. This study is focusing on these 7 041 women and the unit of analysis is individual

women. The SADHS utilized five questionnaires namely, a household questionnaire, a women's questionnaire, a men's questionnaire, an adult health questionnaire and an additional children's questionnaire. This study uses data from the women's questionnaire. The women's questionnaire was used to collect information from women aged 15-49 in all households. These women were asked questions on the following topics: Background characteristics (age, education, race, residence, marital status, etc.), reproductive history, marriage and recent sexual activity, husband's background and respondent's work amongst others. The SADHS sample was designed to be a nationally representative probability sample of approximately 10 000. Statistics South Africa provided the sampling frame based on the enumeration areas (EAs) list of approximately 86 000 EAs created during the 2001 census.

The country was stratified into the nine provinces and each province was further stratified into urban and non-urban areas to have a representative sample. Moreover, since the Indian population constitutes a very small fraction of the South African population, the censuses 2001 EAs were stratified into Indian and Non-Indian. An EA was classified as Indian if the proportion of persons who classified themselves as Indian during census 2001 enumeration in that EA was 80 percent or more, otherwise it was classified as Non-Indian. A sample of 1 000 households was allocated to the stratum.

The study used a two-stage probability sampling, in the first stage, probability proportional to size (PPS) systematic sampling was used to sample EAs and the proportion of Indian persons in an EA was the measure of size. The non-Indian stratum was stratified explicitly by province and within province by four geographical

types, i.e. urban formal, urban informal, rural formal and tribal. Each province was allocated a sample of 1 000 household and within a province the sample was proportionally allocated to the secondary strata, i.e. geography type. For both the Indian and Non-Indian strata the sample taken of households within an EA was sixteen households. The second stage of selection involved the systematic sampling of households/stands from the selected EAs. The Global Positioning System (GPS) was used to identify coordinates of all the stands located within the boundaries of the selected EAs and selected 16 in each EA, for a total of 10 080 selected. A total of 630 primary sampling units (PSUs) were selected for the 2003 SADHS (368 in urban areas and 262 in non-urban areas). This resulted in a total of 10 214 households being selected throughout the country.

3.3 Methods of Analysis

The first phase of the analysis employed descriptive univariate analysis to profile the frequencies by selected background variables. The second phase involved the Kaplan-Meier survival curve at the bivariate level to estimate differentials in the mean age at marriage. The advantage of using the Kaplan-Meier method over the simple frequency distribution is that, the Kaplan-Meier estimator is based on a mathematical formula using information from women who were married and those who were single to estimate the proportion of patients married at any point during the study (Goel, Khanna and Kishore, 2010). Kaplan-Meier takes into account censored data, particularly right censoring which may occur if a respondent withdraws from a study. The study employed the Log rank Chi-square with p-value set at 0.05 ($p < 0.05$) to test for significant differences in the age at first marriage for women of different socio-demographic characteristics.

In the third phase of the analysis, the study employed the general proportional hazard (cox regression) model to investigate the effect of education, age of respondent, region, type of place of residence, childhood place of residence, population group, respondent currently working, sex of household head, age of respondent at first birth, language of respondent and age at first intercourse on the age at first marriage. The proportional hazard (cox regression) method is appropriate as it aims at to estimate the hazard ratio (the probability of an individual experiencing an event, e.g. marriage) while the ordinary logistic regression aims at estimating the odds ratio. In this study the technique will be used to explore the relationship between the survival of women from single to marriage stage. Moreover cox regression focuses on time to event data for example, time to marriage. According to Ikamari (2005), the proportional hazard model has been applied in most analyses that seek to establish the determinants of the chance of occurrence of an event (for example birth, death, marriage, marriage dissolution, etc.).

In this study the interest is in marriage. According to Ikamari (2005), the underlying assumption of the model is that there is a hazard (or risk) at each duration of the occurrence of an event. The model assumes that the hazard function for an individual depends on the values of the covariates and the value of the baseline hazard. The age at first marriage may be interpreted as survival time from a single state to married state. Therefore, cox regression analysis is appropriate for the analysis because age at marriage measures the length of time (the duration) from the single state till the occurrence of the event (marriage state).

According to Ikamari (2005) and Allison (1995), throughout this interval, women may either enter into marriage or be right censored (single when they are lost to follow up or drop-out) at the time of the survey. Furthermore in this case, women who were single at the time of the survey constitute censored cases which require special treatment in estimating exposure time and as such ordinary regression procedures are not appropriate. Therefore the cox survival analysis is approximate because it includes all women including those not married by date of interview, implying that even censored cases contributed in the estimation of survival time to marriage as these (censored cases) are expected to marry at an unknown date in future. Below is the cox regression model:

$$(t, X, \beta) = h_0(t)e^{\beta'X_i} = h_0(t)X \exp(b_{age} \cdot age + b_{education} \cdot education + \dots + b_{populationgroup} \cdot populationgroup)$$

where t denotes duration to marriage (or survival time) and β is a vector of parameters to be estimated. $h_0(t)$ is the duration-dependent risk component of the hazard function while the second exponential term is relative risk component of the hazard function associated with having attribute X .

3.4 Description of Variables

The variables of interest for this study were obtained from the individual women's questionnaire. The dependent variable for this analysis, age at first marriage measured in terms of completed years, was obtained from a question in section 5: Marriage and Sexual Activity in the individual women's questionnaire. The standard way of measuring age at first marriage in the worldwide DHS programs is that during the survey all women were asked a series of questions regarding their marital status and whether they had ever lived with a man. All those who reported that they were ever-

married or ever-lived with a man, were asked to indicate how old they were at the time they first started living with a man as a wife irrespective of the legality or otherwise of their union. The response to this question constitutes the woman's age at first marriage. In this study, two dependent variables were used namely; early marriage and late marriage. Early marriage was captured by categorizing age at first marriage in such a way that the value of 0 was assigned if marriage took place before the age of 18 years and 1 if it took place after the age of 18 years. Late marriage was captured in the same manner but in these case women whose age at first marriage was below 30 was assigned 0 and assigned 1 if marriage took place above 30.

The main interest of this study is to examine the interrelationship between age at first marriage and the social-economic and demographic factors. There are thirteen independent variables in this study namely: Age of respondent, region, type of place of residence, childhood place of residence, highest education level, population group, respondent currently working, sex of household head, age at first intercourse, age of respondent at first birth, ever tested for AIDS, wealth index and language of respondent.

In this study, population groups categorized as Black African, Whites, Indian/Asians and Coloured was used as a proxy for ethnicity. Provinces were used as a proxy for region of residence and languages of respondent used as a proxy for cultural tribes found in South Africa. The variables selected in this investigation are those that are frequently used for the analysis of determinants of age at first marriage. The independent variables were also obtained from the women's questionnaire particularly in the section on respondent's background characteristics.

Table 1: Description of the study variables

Description	Coding/Values
Age at first marriage	0 = Age at first marriage below 18 1 = Age at first marriage above 18 0 = Age at first marriage below 30 1 = Age at first marriage above 30
Age 5-Year Group	1 = 15-19 2 = 20-24 3 = 25-29 4 = 30-34 5 = 35-39 6 = 40-44 7 = 45-49
Provinces	1 = Western Cape 2 = Eastern Cape 3 = Northern Cape 4 = Free State 5 = Kwazulu-Natal 6 = North West 7 = Gauteng 8 = Mpumalanga 9 = Limpopo
Type of place of residence	1 = Urban 2 = Rural
Childhood place of residence	1 = Urban 2 = Rural
Highest Education Level	0 = No Education 1 = Primary 2 = Secondary 3 = Higher
Sex of household head	1 = Male 2 = Female
Age of respondent at first birth	0 = Below 18 1 = Above 18
Age at First Intercourse	0 = Below 18 1 = Above 18
Respondent Currently Working	0 = Not Working

	1 = Working
Ever Tested for AIDS	0 = Tested 1 = Not Tested
Language of Respondent	1 = English 2 = Afrikaans 3 = IsiXhosa 4 = IsiZulu 5 = Sesotho 6 = Setswana 7 = Sepedi 8 = Siswati 9 = Tshivenda 10 = Xitsonga 11 = IsiNdebele
Wealth Index	1 = Poor 2 = Poorer 3 = Middle 4 = Rich 5 = Richer

3.5 Limitation of the Study

This paper examined the social, economic and demographic factors affecting age at first marriage, and has the following limitations. Firstly, the study only covered the ever-married women. The study only included women, so there exist unknown trends and determinants of age at first marriage among men. Secondly, since the survey data was used, it may suffer from coverage error where the respondent might have inaccurately mis-reported the age at first marriage. Inaccurate reporting might be due to the long recall bias and to the difficulty in understanding and interpreting at what stage people (especially Black African Population Group) are considered to be married as black African marriages have a series of stages.

Thirdly, there may exist inaccurate reporting of other independent variables such as age at first intercourse, age at first birth and testing for HIV/AIDS status. Again, inaccurate reporting of the age at first intercourse may be due to the recall bias as a result of the long reference period. Furthermore, some respondents may supply false information as they would want to avoid being judged by the interviewer of having engaged in sexual activities early or late, therefore the responses are subject to measurement error. The responses to the questions on HIV/AIDS status are also subject to measurement error, as respondent may provide false information. In terms of age at first birth, some respondent may not fully disclose the exact age that they had given birth for the first time, mainly due to embarrassment.

The SADHS does not include cultural variables; hence, this study employed the variable languages of respondent as a proxy for measuring cultural variations as it is important to understand cultural variations in examining age at first marriage. Lastly, the 2003 SADHS report highlighted some concerns with regard to the quality of the survey data. For example, some of the key demographic and adult health indicators such as the prevalence of hypertension and the related indicators of quality of care were problematic and difficult to interpret which shown signs of data quality problems. The results of the fertility level and child mortality estimates for the 2003 SADHS were found not to be consistent with other data sources.

Moreover, comparison of the socio-demographic characteristics of the 2003 SADHS sample with the 2001 population census had shown an over-representation of urban areas and the African population group, and an under-representation of whites and Indian females. It also highlighted many abnormalities in the ages of the sampled

respondents, indicating problems in the quality of the 2003 SADHS data. The data problems appeared to arise from poor fieldwork, suggesting that there was inadequate training, supervision and quality control during the implementation of the survey.

CHAPTER FOUR: ANALYSIS OF RESULTS

4.1 Introduction

This chapter provides analysis of age at first marriage in South Africa using the 2003 SADHS dataset. The chapter begins with background characteristics of respondents followed by the mean age at first marriage by selected socio-economic variables. The results of cox regression are presented before a brief summary of this chapter.

4.2 Characteristics of Respondents

Table 2 gives the summary statistics of the samples. Based on the univariate results, the majority of the respondents lived in urban areas (63%) compared to those who lived in rural areas (37%). In terms of their childhood place of residence, 58 percent of the respondents are from rural areas while 42 percent are from urban areas. The South African population is characterized by four population groups namely, the Black African, Coloured, Indian/Asian and White population. The majority of the respondents are Black African (66%) followed by Whites (13%), Coloureds (15%) and Indian/Asian with 6% of the population.

The distribution of the respondent population varies by province. Two provinces in which the majority of the respondents were found were from KwaZulu-Natal with 18% followed by Northern Cape with 12%. Western Cape and Gauteng had the same respondent distribution of 11.6%. The Eastern Cape and the North West province

were the two provinces where the least respondents were found with 6% and 8% respectively. Most of the respondents had both primary education (24%) and secondary education (59%). The majority of the respondent were not working (59%) compared to 41% of those who reported that they were working. 19 percent of the respondent regarded themselves as being poorer while 25 percent were richer.

Based on table 2, majority of the households were male headed (64%) while only 36% were female headed. The two dominant languages spoken by respondents were English (21%) and Afrikaans (16%) respectively. There was a slight difference between respondents who spoke IsiZulu and Sesotho with 12.4% and 12.8% respectively. SiSwati, Tshivenda, Xitsonga and IsiNdebele were the languages spoken by the least respondents. 44 percent of the respondents engaged in their first sexual intercourse below the age of 18 and 21 percent of the respondents had their first birth before age 18. Furthermore, 58 percent of them reported that they have tested for HIV/AIDS.

Table 2:Kaplan-Meir Coefficients predicting mean age at marriage by selected Covariates: SADHS, 2003

Background Variables	Mean	Log rank	N	%
Age 5-year groups				
15-19	16.35	216.56*	66	2.0
20-24	21.83		270	8.1
25-29	26.58		496	14.9
30-34	30.34		584	17.5
35-39	33.68		717	21.5
40-44	38.60		629	18.8
45-49	40.33		578	17.3

Region				
Western Cape	39.60	98.768*	388	11.6
Eastern Cape	34.75		207	6.2
Northern Cape	42.04		409	12.2
Free State	38.68		385	11.5
KwaZulu-Natal	41.27		588	17.6
North West	39.56		252	7.5
Gauteng	37.76		388	11.6
Mpumalanga	35.92		371	11.1
Limpopo	32.49		352	10.5
Type of place of residence				
Urban	41.04	34.726*	2105	63.0
Rural	38.50		1235	37.0
Childhood place of residence				
Urban	42.08	63.328*	1379	41.7
Rural	38.68		1929	58.3
Highest educational level				
No Education	34.39	69.735*	256	7.7
Primary	38.63		795	23.8
Secondary	40.56		1977	59.2
Higher	37.36		311	9.3
Ethnicity				
Black African	39.11	45.400*	2215	66.4
Coloured	40.83		501	15.0
Indian/Asian	36.69		200	6.0
Whites	33.82		422	12.6
Sex of household head				
Male	40.55	8.198*	2127	63.7
Female	39.30		1213	36.3
Age of respondent at 1st birth				
Below 18	30.39	487.667*	644	21.0
Above 18	42.38		2423	79.0
Coded age at first intercourse				
Below 18	36.18	291.064*	1301	43.7
Above 18	40.80		1675	56.3
Respondent currently working				
Not Working	39.24	23.633*	1955	58.9
Working	41.31		1362	41.1
Ever Tested for AIDS				
Tested	39.54	11.235*	1804	58.4
Not Tested	41.01		1284	41.6
Wealth Index				
Poor	37.62	75.516*	571	17.1
Poorer	36.80		642	19.2
Middle	39.91		650	19.5
Rich	41.36		621	18.6
Richer	40.10		853	25.6

Language of respondent				
English	40.03	123.656*	686	20.6
Afrikaans	42.40		548	16.4
IsiXhosa	37.85		333	10.0
IsiZulu	39.69		412	12.4
Sesotho	39.12		426	12.8
Setswana	39.74		304	9.1
Sepedi	33.47		290	8.7
Siswati	34.60		132	4.0
TshiVenda	33.48		73	2.2
Xitsonga	26.81		122	3.7
IsiNdebele	33.50		10	0.3

Level of Significance: $p < 0.05^*$

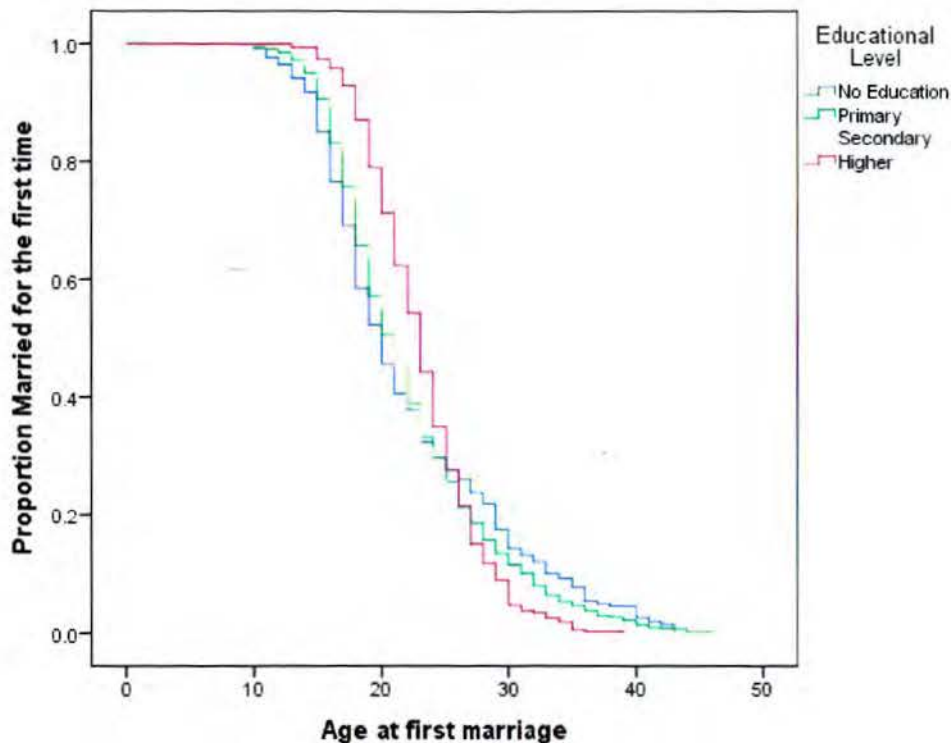
4.3 Mean age at first marriage by background variables

Table 2 above also presents mean age at first marriage by selected background variables. The mean age at first marriage varies by background characteristics of the study population. The mean age at first marriage is lower for younger women than older women. The mean age at first marriage is 16 years for women aged 15-19 increasing to 40 years for women aged 45-49. For women in the 30-39 age group, the mean age at first marriage is around 33 years showing a narrow mean age at first marriage between the age groups 33-34 and 35-39.

Variation in the mean age at first marriage by level of education is observed. The mean age at first marriage is high for women with secondary education (41 years) and primary education (39 years) respectively. Therefore women with secondary and primary education delay marriage while at an educational institutions. Women with no education marry early, around the age of 34 years, compared to women with primary and secondary education. Furthermore, there is a decrease in the mean age at first marriage for women with higher educational attainment compared to other

educational levels. The mean age at first marriage of 37 years was observed for women with higher educational level.

Figure 4: Kaplan-Meier plot showing proportion of women who got married for first time in South Africa by Educational Level: 2003

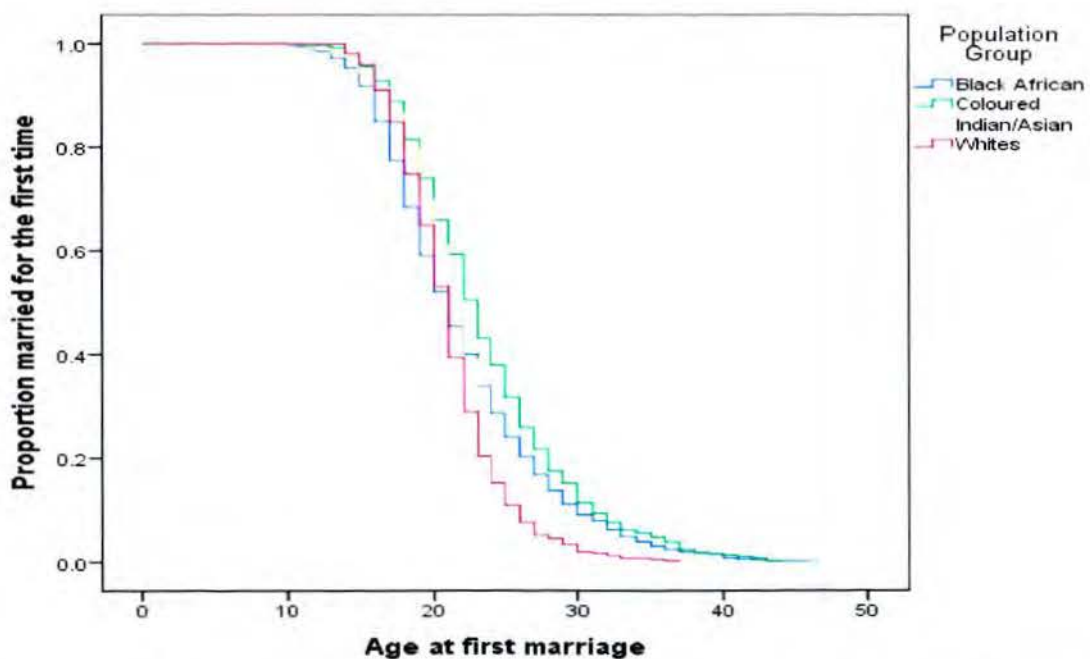


As depicted in figure 4 above, chances of marriage among highly educated women were lower until about age 29 years, where an increase of the odds of getting married was observed. The proportion of women who got married (before age 20) was lower for women with higher educational level compared to women with no educational level. Based on table 2 above, the mean age at first marriage varies by provinces. The mean age at first marriage is lower in Limpopo province (32 years) and the Eastern Cape provinces (34 years). High mean age at first marriage is observed in KwaZulu-Natal (41 years) and Northern Cape (42 years) provinces. Therefore in 2003, women

in KwaZulu-Natal and Northern Cape provinces got married later than women in other provinces.

The above results in table 2 suggest that Coloureds delay marriage with their mean age at marriage of 39.6 years and 42 years been observed respectively. Furthermore, the Whites and Indian/Asian population tend to marry early with their mean age at first marriage being 34 and 37 years respectively compared to the Black African with a mean age at marriage of 39 years. Figure 5 below also depicts that Coloureds marry late compared to other population groups.

Figure 5: Kaplan-Meier plot showing proportion of women who got married for first time in South Africa by Population Group, 20003



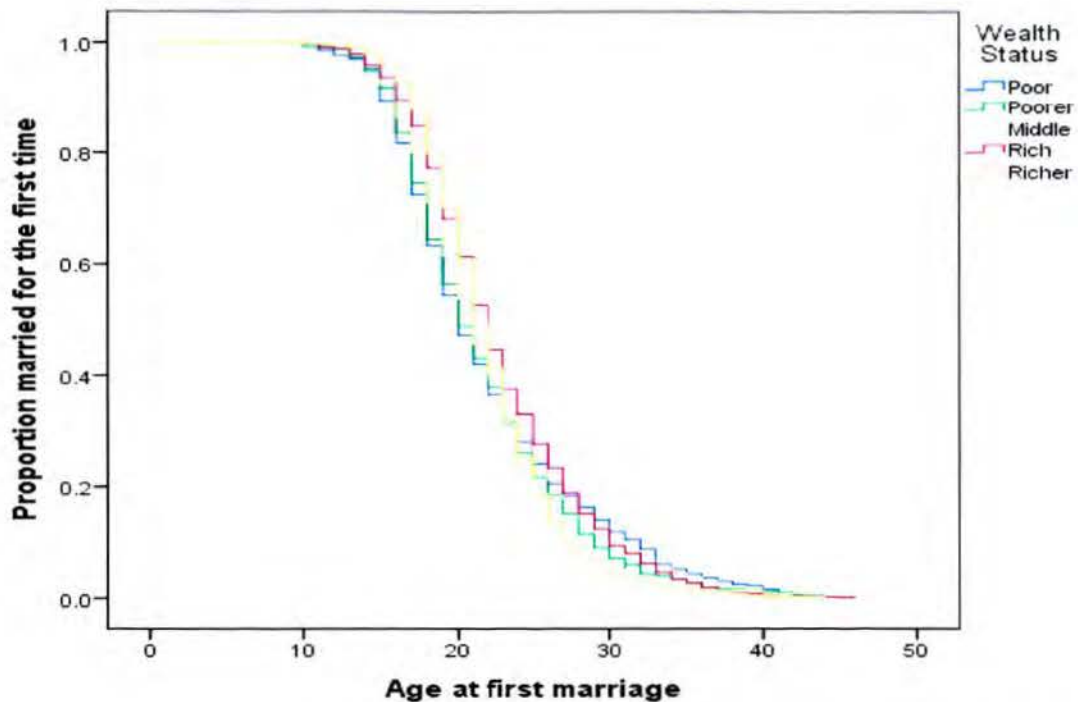
proportion of women getting married for the first time is low for the Whites and the Indian/Asian population group, meaning between ages 10 to 20, most of get married.

Moreover, figure 5 above shows that most of the Coloureds and Black African women survive not getting married. Therefore the Black African and Coloureds marry late.

In 2003, the mean age at first marriage was 41 years in urban areas compared to 38 years in rural areas, implying that women in urban areas tend to marry later than women in rural areas. Generally women whose childhood place of residence is in rural areas tend to marry earlier than women whose childhood place of residence is in urban areas. The mean age at first marriage for women who were not working was 39 years compared to those who were working (41 years).

Therefore women who were engaged in economic activities (working) tend to delay marriage. Based on table 2, the overall women's age at first marriage varied by their wealth status. Women who were classified as being poorer married early (36.8 years) than women who were classified as being richer (40 years). Generally women who are well-off delayed marriage. From figure 6, age at first marriage varies by wealth status, where the poorer women engage in marriage at an early age compared to the rich and richer women. Furthermore, the proportion of women who got married for the first time increased for the rich and richer starting from the ages around 23 till downwards.

Figure 6: Kaplan-Meier plot showing proportion of women who got married for first time in South Africa by Wealth Status: 2003



Women who engaged in sexual activities before the age of 18 years got married earlier than their counterparts who engaged in sexual activities after the age of 18 years, with their mean age at marriage being observed as 36 and 41 years respectively. In 2003, the mean age at first marriage for women whose age at first birth was below 18 years was 30 years compared to those whose age at first birth was 18 and above (42 years). Therefore women who gave birth at aged 18 and above tend to get married later than their counterparts. Mean age at first marriage varies by language of respondent which can be taken as a proxy for measuring cultural variations. The Sepedi, Siswati, IsiNdebele, Xitsonga and Tshivenda cultures married earlier. A slight difference between the mean ages at marriage by other cultural languages was observed.

4.4 Cox Regression Analysis

4.4.1 Age at Marriage below age 18

The relationship between age at first marriage and the socio-economic factors was further explored by examining the multiple Cox regression coefficients. Table 3 shows the multiple Cox-regression coefficients predicting the relative odds that a woman marries before exact age 18 in 2003, in South Africa. Based on the results, age, education, population group, childhood place of residence, age of respondent at first birth and age at first sexual intercourse were found to be statistically significant with age at first marriage below age 18 years.

Younger women between the ages 15-19, 20-24 and the young adults between the ages of 35-39 years were at a higher chance of getting married before the age of 18 years. The results of table 3 indicate that the chance of first marriage was 49 percent higher for women aged 20-24 and 41 percent higher for women in the 35-39 age groups. There was a significant association between the age at first marriage and the level of education. Based on table 3, women with primary and secondary education were 69 percent and 60 percent more likely to get married before the age 18 compared to the reference category. Table 3 indicates that the chance of first marriage was 58 percent lower for women with higher educational attainment compared to women with no education. Therefore more educated women are less likely to marry early.

Table 3: Cox regression analysis predicting the relative odds that a woman marries before exact age 18 in 2003

Covariates	Sig.	Exp(B)	95.0% CI for Exp(B)	
			Lower	Upper
Age of Respondent				
15-19 ®		1.000		
20-24	.007	.494	.296	.826
25-29	.000	.358	.215	.596
30-34	.000	.302	.181	.504
35-39	.000	.408	.248	.673
40-44	.000	.323	.191	.547
45-49	.000	.375	.221	.637
Province				
Western Cape ®		1.000		
Eastern Cape	.392	1.338	.687	2.608
Northern Cape	.596	.862	.499	1.490
Free State	.881	1.052	.545	2.028
KwaZulu-Natal	.732	.895	.474	1.691
North West	.989	.995	.505	1.961
Gauteng	.241	.705	.394	1.264
Mpumalanga	.435	.777	.412	1.464
Limpopo	.347	.717	.359	1.434
Type of Place of Residence				
Urban ®		1.000		
Rural	.059	.784	.608	1.010
Childhood Place of Residence				
Urban ®				
Rural/Farm	.004	1.498	1.140	1.969
Educational Level				
No Education ®		1.000		
Primary	.023	.685	.495	.949
Secondary	.003	.601	.431	.839
Higher	.006	.424	.230	.783
Population Group				
Black African ®		1.000		
Coloured	.575	.836	.448	1.562
Indian/Asian	.010	2.689	1.263	5.724
Whites	.012	2.748	1.250	6.041

Sex of Household Head				
Male ®		1.000		
Female	.196	1.138	.936	1.383
Age at First Birth				
Below 18 ®		1.000		
Above 18	0.000	.345	.281	.423
Age at First Intercourse				
Below 18 ®		1.000		
Above 18	0.000	.364	.288	.460
Respondent Currently Working				
Not Working ®		1.000		
Working	.252	.885	.717	1.091
Ever Tested for AIDS				
Tested ®		1.000		
Not Tested	.402	.914	.742	1.127
Wealth Index				
Poor ®		1.000		
Poorer	.960	1.007	.771	1.314
Middle	.403	.879	.649	1.190
Rich	.314	.833	.584	1.189
Richer	.166	.719	.451	1.146
Language				
English ®		1.000		
Afrikaans	.217	.425	.109	1.652
IsiXhosa	.150	.360	.090	1.447
IsiZulu	.084	.306	.080	1.173
Sesotho	.559	.700	.212	2.314
Setswana	.156	.392	.108	1.429
Sepedi	.396	.570	.156	2.087
Siswati	.856	.896	.274	2.928
TshiVenda	.443	.620	.183	2.102
Xitsonga	.731	.791	.208	3.007
IsiNdebele	.556	1.437	.429	4.817
2 Log Likelihood		7155.120		6656.667
Chi-Square Change		618.939		498.453
Sample		3340		3340
Censored		2018		2018

Age at first intercourse was found to be positively associated with age at first marriage. Women who engaged in sexual activities late were found to be 64 percent less likely to get married early, than those who engaged in early sexual activities. Based on table 4 below, women who had an ex-nuptial birth after the age of 18 years were 65 percent less likely to get married early than their counterparts. The odds of women getting married before age 18 were higher for the Indian/Asian (2.69 times) and the Whites (2.75 times) population groups.

Women whose childhood place of residence was from rural areas were 1.49 times more likely to get married early than those from urban areas. Variables such as; type of place of residence, sex of household head, employment status, wealth index, HIV/AIDS status and language of respondent were found to not to be the most important determinants of early marriage.

4.4.2 Age at Marriage Below 30

In determining the determinants of late age at marriage (below age 30) in South Africa, multiple cox-regression analysis was also employed and the results in table 4 below indicated that the most important factors affecting late age at first marriage in South Africa were, age, educational level, population group, pre-marital fertility, pre-marital sexual intercourse and wealth status.

Table 4: Cox Regression analysis predicting the relative odds that a woman marries before age 30 in 2003

	Sig.	Exp(B)	95.0% CI for Exp(B)	
			Lower	Upper
Age of Respondent				
15-19 ®		1.000		
20-24	.000	.424	.283	.635
25-29	.000	.245	.165	.364
30-34	.000	.193	.130	.286
35-39	.000	.165	.111	.245
40-44	.000	.153	.103	.229
45-49	.000	.130	.087	.195
Province				
Western Cape ®		1.000		
Eastern Cape	.013	1.393	1.074	1.807
Northern Cape	.779	.973	.802	1.179
Free State	.747	1.043	.808	1.346
KwaZulu-Natal	.951	.992	.778	1.266
North West	.236	1.185	.895	1.569
Gauteng	.261	.881	.706	1.099
Mpumalanga	.556	.924	.710	1.203
Limpopo	.683	1.065	.787	1.442
Type of Place of Residence				
Urban ®		1.000		
Rural	.407	1.051	.934	1.184
Childhood Place of Residence				
Urban ®		1.000		
Rural/Farm	.012	1.151	1.032	1.285
Educational Level				
No Education ®		1.000		
Primary	.763	.970	.798	1.180
Secondary	.228	.887	.730	1.078
Higher	.014	.735	.575	.940
Population Group				
Black African ®		1.000		
Coloured	.600	.943	.757	1.175
Indian/Asian	.007	1.465	1.107	1.939
Whites	.000	1.704	1.262	2.300

Sex of Household Head				
Male ®		1.000		
Female	.078	1.084	.991	1.185
Age at First Birth				
Below 18 ®		1.000		
Above 18	.000	.808	.722	.904
Age at First Intercourse				
Below 18 ®		1.000		
Above 18	.000	.815	.742	.895
Respondent Currently Working				
Not Working ®		1.000		
Working	.681	.981	.895	1.075
Ever Tested for AIDS				
Tested ®		1.000		
Not Tested	.330	.956	.872	1.047
Wealth Index				
Poor ®		1.000		
Poorer	.019	1.186	1.029	1.368
Middle	.052	1.158	.999	1.344
Rich	.031	1.195	1.016	1.406
Richer	.004	1.325	1.092	1.608
Language				
English ®		1.000		
Afrikaans	.375	.710	.333	1.513
IsiXhosa	.268	.649	.302	1.395
IsiZulu	.129	.559	.264	1.185
Sesotho	.402	.735	.358	1.510
Setswana	.348	.701	.334	1.472
Sepedi	.144	.572	.270	1.210
Siswati	.444	.756	.370	1.546
TshiVenda	.388	.724	.348	1.506
Xitsonga	.763	.887	.406	1.935
IsiNdebele	.655	1.183	.566	2.471
2 Log Likelihood		32280.581		31871.342
Chi-Square Change		522.189		409.240
Sample		3340		3340
Censored		211		211

4.5 Summary

This chapter has examined the interrelationship between age at first marriage and the socio-economic factors amongst women in South Africa. The bivariate analysis has shown that all background characteristics such as women's age, region of residence, type of place of residence, childhood place of residence, education level, population group, sex of household head, age of respondent at first birth, age at first intercourse, employment status, women's ever testing for AIDS, wealth status and language of respondent were all significant with age at first marriage below age 18. A positive association between age at first marriage and women's education, population group, age, childhood place of residence, age of respondent at first birth and age at first sexual intercourse was predicted by the Cox-regression model.

Cox-regression results also show that there is an association between age at first marriage and wealth status for age at marriage below 30. The variables region, sex of household head, childhood place of residence, type of place of residence, respondent's current working status and language of respondent were not statistically significant. Therefore the socio-economic factors, namely education, population group, age, age at first birth and age at first intercourse are important in understanding age at first marriage in South Africa.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter summarises the findings of the study. Based on these findings conclusions are made and recommendations are drawn. This chapter is divided into three sections. The first section summarises the major findings whereas the second section presents the conclusion made from the study. The last section deals with recommendations based on the results of the study.

5.2 Major Findings

The main objective of this study was to investigate the social and demographic factors affecting age at first marriage in South Africa. Based on the results of this study, the following major findings were observed. Women's age, population group, education, childhood place of residence, age at first sexual intercourse and age at first birth were found as the most important factors affecting age at first marriage. Women whose childhood place of residence was a rural area got married earlier than those women who were from urban areas. Moreover, women from a rural type of residence also got married earlier than those from urban areas.

Bivariate analysis has shown that education had an effect on the age at first marriage, the mean age at first marriage of women who were married before the age of 18 years varied by the education status. A low mean age at first marriage of women who

married before the age of 18 years was observed for women with no education, while high mean age at first marriage was observed amongst women with primary and secondary education. More women who had an ex-nuptial birth and engaged in sexual activities at the early age of less than 18 years were found to be married before the age of 18 years. Generally Asians/Indians and White women married earlier than the Black African and Coloured women. The mean age at marriage was low for women not working compared to those who were working. Therefore women who were educated and working delayed marriage. In terms of social status, women who were well-off (rich) delayed marriage while poor women engaged in marriage activities earlier.

Other socio-economic variables (age, region of residence, sex of household, women's ever testing for AIDS and language of respondent) were statistically significant based on the bivariate analysis. Cox-regression results revealed that women's age, education level, population group, childhood place of residence, age of respondent at first birth and age at first sexual intercourse were the most significant factors in understanding age at first marriage in South Africa. Women's region, type of place of residence, employment status, testing for AIDS, sex of household head, and language of respondent were not statistically significant.

5.3 Discussion

As mentioned earlier, this study has revealed that women's education, population group, age, age at first birth and age at first intercourse are important in understanding age at first marriage in South Africa. The chance of first marriage for women with

higher education was 58 percent lower compared to women with no education. Therefore the hazard of women's age at first marriage decreases with higher educational level attainment. Moreover, it can be observed that South African women with higher educational level delay marriage. The effect of education on the age at first marriage was also found to be statistically significant in countries such as Kenya and Malawi. Each additional level of education lowers the probability of first marriage significantly (Ikamari, 2005). Therefore this result is consistent with those reported earlier in the literature review.

Age at first sexual intercourse (pre-marital sexual activity) has an effect on the age at first marriage. The results show that early age at first sexual intercourse is associated with increased probability of high age at first marriage. Women who start to engage in sexual activities before the age of 18 years are significantly more likely to enter into early marriage than those who start sexual activities over the age of 18 years. The study also found age at first birth (premarital childbearing) to be statistically significant to age at first marriage in South Africa. Women who had their first birth at an early age are more likely to get married than their counterparts. Therefore having an ex-nuptial birth significantly increases the probability of marrying early.

In a country like Kenya, it was found that having an ex-nuptial birth significantly lowers the probability of marrying early, furthermore, the chance of first marriage was 50 percent lower for women with an ex-nuptial birth compared to those with an ex-nuptial birth (Ikamari, 2005). South Africa offers a particular picture with regard to premarital childbearing and marriage. It is generally accepted in many South African communities that a man can marry a woman who has an ex-nuptial birth. In some

instances men marry their women after they have been impregnated or given birth to their children to avoid paying damages to families of the women. This is not the case in a country like Kenya, where it is not culturally and socially acceptable for a young man to marry as a first wife a woman who already has a child from another relationship (Ikamari, 2005). The age of the respondent, and the population group was found to have an effect on the age at first marriage in South Africa. Generally the Coloureds and Black Africans delay marriage compared to Whites and Indian/Asian population groups. In South Africa the payment of Lobola (bride price) can be linked with high age at marriage for the Black African population group. Men have to be economically stable to marry as the bride price is high and linked with the bride's educational level. Ethnicity and Age were also found to be statistically significant in countries such as Malawi and Kenya. Moreover, ethnicity is indicated as the most important predictor of the pattern of age at marriage in Malaysia (Palmore, 1983) and Mozambique (Arnaldo, 2004).

5.4 Recommendation

Based on the above findings the following recommendations are made. These recommendations will assist in terms of advising the government in designing strategies and programmes that contributes toward marriage and proper family formation structures.

- The South African Government must design strategies targeted for the Black African and Coloured population groups which will encourage them to engage in marriage earlier than a high age at marriage of above 30 years. Therefore strategies and programmes need to be designed that will decrease the age at

marriage for the Black African and Coloured population groups. The decrease in the age at marriage for the black African and coloured population groups will assist in terms of reducing households headed by mothers only, experienced by the two population groups. And in the long run it will address the issue of child development, living conditions, social-ills such as high teenage pregnancy and alcohol and drug abuse, which are prominent features of the black African and coloured population groups. Research has highlighted that growing up in a stable family with both parents can make a significant difference to the future outcome of young people.

- Generally the South African Government must strengthen programmes that will promote family life across all population groups. The results of the study revealed that coloured and the black Africans engage in marriage activities late, and the study has also highlighted that these two population groups are mostly affected by the challenges raised in the problem statement. Therefore programmes and policies are needed targeting this population groups but also not completely leaving out other population groups (Asians and Whites).
- The Government must invest in a continuous collection of survey data for researchers to continue to investigate the effect of age at marriage to other social issues such as households headed by mothers only, absent but living fathers, HIV/AIDS and others.

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APPENDIX

Kaplan-Meier plots showing differentials of survivors by selected background characteristics of women

