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Nuptiality and Fertility Thematic Report

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ZimStat
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FERTILITY THEMATIC REPORT

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Foreword

The Zimbabwe 2012 Population Census Nuptiality and Fertility Thematic Report is one of the several census thematic reports to be prepared by the Zimbabwe National Statistics Agency (ZimStat) based on the final results of the 2012 Population Census. In preparing the Nuptiality and Fertility Thematic Report, ZimStat seeks to put at the disposal of planners, decision makers and development partners reliable data on fertility levels and trends.

ZIMSTAT is appreciative of the significant funding and material provisions availed to the Agency by the Government of Zimbabwe through Treasury, given the prevailing budgetary constraints.

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Executive Summary

Zimbabwe has a keen and well-articulated interest and focus on population and development issues of which fertility is core. A deeper understanding of fertility, its levels, trends and determinants would no doubt enhance national planning programmes.

Evidence from census data shows that Zimbabwean fertility is in transition. TFR as estimated from the 1969 census was 7.1, while that from the 1982, 92, 2002 and 2012 censuses was 5.6, 4.4, 3.6 and 3.7, respectively – an implied decline of about 1.9 births during the 20-year inter-census period of 1982-2012. Yet fertility data from ZDHS of 1984 (6.5) and 2010/11 (4.1) show a fertility decline of 2.4 children. However, it is important to note that census data generally underestimate fertility given the problems associated with retrospective data on fertility- memory lapse; and the use of proxies where the mothers are absent. Thus, one cannot be certain as to the actual fertility levels and trends without undertaking some indirect estimation which would correct for some of such errors.

Data from the ZDHS surveys also show the general expected positive relationship between marriage and fertility during this period, however, the gap between fertility of married and single women is closing. These data raise more questions as to the actual levels and trends in fertility and one of its proximate determinant, nuptiality. Thus, this thematic analysis was a further analysis of the 2012 census with the view of providing more insights into fertility levels and trends in Zimbabwe. Using data for 2012 census, the specific objectives were to: assess nuptiality levels and trends; use indirect estimation techniques to estimate fertility; and, repeat the above analyses for 1992 and 2002 censuses in order to discern trends.

The findings show that marriage has generally increased; it is universal, with approximately 98% of both males and females marrying at some point in their lives. The proportion married increased most between 2002 and 2012; the increase was more for males. Women marry earlier than their male counterparts and this is largely because expected maturity at marriage for women is less demanding than that for males which includes work requirement and the acquisition of material goods. Worth noting is the increase is widowhood by about 81%, 51% for females and 11% for males during the 20-year inter census period. However, most of the increase was during the 1992-2002 inter census period, a time when the HIV and AIDS pandemic was reigning havoc in Zimbabwe.

Women are more likely to be single, this is largely because men tend to remarry soon after marriage dissolution, be it as a result of death of a spouse or divorce. Given that the proportion which is divorced and widowed increases with age unabatedly among women, this suggests that men who become single do not necessarily marry their age mates, but younger women some of who have never married. In turn, these implied high levels of re-marriage have serious implied negative implications on the spread of HIV.

There is no clear nuptiality pattern by district; however, one district is distinct among the rest, and this is Bulilimammangwe. Bulilimamangwe experienced the highest level of being never married among both males and females in 1992; and consistently the lowest level of marriage in both 1992 and 2012. Bulilimamangwe also has the highest level of widowhood for both males and females in 1992 and 2002.

An assessment of fertility data from the 1992, 2002 and 2012 censuses showed that data from all the three censuses do not have any significant flaws in reported parities. Thus, TFR

estimated from the indirect estimation techniques show that TFR in 2012 was about 4, which is comparable to that from the ZDHS data. Hence, fertility declined between the 20-year inter-census period, from a TFR of about 4.7 in 1992 to about 4 in 2012. The decline in life time fertility among older women accelerated over the 20 year period while that of young women declined largely during the 1992-2002 inter census period, but receded during the 2002-2012 period. The increase in fertility among young women is consistent with the increase in marriage among young men during the same period. The increased marriage among males is paralleled by the increased fertility among young women given that the Zimbabwean culture equates marriage with reproduction. It is expected that once married, a woman must conceive immediately and bear a child or two before any contraceptive use. Or if an adolescent gets pregnant, she is expected to marry. Consistently, married women have higher fertility than all the other marital groups.

Fertility decline between the inter census period was more among women with no education compared to those with higher education; it was also more among rural women compared to urban women. The increase in fertility between 2002 and 2012 was more among the more educated and the urban residents. Yet fertility is generally lower among educated women compared to those with no education; it is lower among urban women compared to their rural counterparts. One can thus posit that the fertility decline was underlined not only by development; but also by lack of development. Development underlies fertility decline given that the educated and urbanized women are further ahead in the fertility transition with their fertility lower than that of their uneducated and rural counterparts. However, the increase in fertility between 2002 and 2012 was higher among the educated and urban women compared to the uneducated and rural women, respectively, perhaps reflecting the delayed fertility during the 2007-2010 economic crunch. Given the stabilization of the economy with the dollarization of the economy, especially from 2010 to date, fertility then picked up, more for the modernized women who understand, and are more affected by economic swings. Meanwhile, the less modernized women have been reducing their fertility as family planning became more acceptable, accessible and affordable starting from the establishment of the Zimbabwe national Family Planning Council after independence. And because of lack of development, both the less modernized and the modernized women reduced their fertility to levels which could be sustained in the ailing economy. The increase between 2002 and 2012 can be considered as temporary, simply a boom which is short term. Fertility is expected to stall at around 3 to 4 children at least for the next ten to twenty years given the socio-economic context within which it is occurring.

Fertility in Zimbabwe still occurs too early and late in the lives of mothers granted the high fertility among adolescent women, and significant fertility beyond age thirty five. This partly contributes to the high maternal and infant deaths.

List of Abbreviations

AIDS	Acquired Immuno-Deficiency Syndrome
ASFR	Age Specific Fertility Rate
ARV	Anti-retroviral
CEB	Children Ever Born
CSO	Central Statistical Office
MDGs	Millennium Development Goals
SMAM	Singulate Mean Age at Marriage
TFR	Total Fertility Rate
UN	United Nations
UMP	Uzumba Maramba Pfungwe
UNFPA	United Nations Fund for Population Activities
ZDHS	Zimbabwe Demographic and Health Survey
ZIM ASSET	Zimbabwe Agenda for Sustainable Socio-Economic Transformation
ZIMSTAT	Zimbabwe National Statistics Agency

Definition of Terms

Age-Dependency Ratio: the ratio of persons in dependent ages (under15 and over 60 years) to economically productive ages (15-59 years).

Age-Sex Structure: the distribution of the population by age and sex, usually depicted by a population pyramid.

Age-Specific Fertility Rates (ASFRs): are obtained by dividing the number of births by women in a particular age group, x to x+n, in a specific calendar year, to the mid-year population of women in the same age group. It measures the average number of children a woman of that age group would have under the current fertility conditions of that year.

Age Structure is the distribution of people in the various age groups, usually expressed in single or five-year age groups.

Annual Population Growth rate: Average annual increase of the population over one year.

Average Household Size: is obtained by dividing the total population living in households by the total number of households.

Childbearing Age: is generally for women in the reproductive age, 15-49 years.

Child mortality: probability of dying between exact ages one and the fifth birthday.

Children: defined as persons aged 0-17 in the Zimbabwe census.

Circular Migration: repeated internal migration movements on similar routes.

Cohort: a group of individuals experiencing the same demographic event during a specified period of time; e.g. birth cohort, marriage cohort.

Crude Birth Rate (CBR): the total number of live births per 1,000 mid-year population in a given year.

Crude Death Rate (CDR): the total number of deaths per 1,000 mid-year population in a given year.

De-facto Count: the enumeration of persons present at a specified place at a particular point in time.

De-jure Count: the enumeration of persons who usually reside in a given place at a particular point in time.

Demography: the scientific study of human populations, size, composition, characteristics, distribution and changes over time.

Doubling time: is the time it would take for a population to double its current size.

Elderly: people aged 60 years and above.

Fertility: refers to the current reproductive performance of a woman.I suggest we don't define this. Other wise fertility is a component of population growth through births.

General Fertility Rate (GFR): measures the number of births in a given year divided by the corresponding mid-year population of women in the childbearing years (15-49). It is a refined measure of fertility when compared to CBR which includes the total population in the denominator.

Total Fertility Rate: is the total number of births a hypothetical cohort of women would have if they were to survive to the end of the reproductive age, and gives birth at the observed age specific fertility rates in a given year t.

Gross Reproduction Rate: the total number of daughters a woman would have in her life (assuming she survives until the age of 49 years).

Infant Mortality Rate (IMR): the probability of dying before the first year of life in a specific year, usually expressed in terms of deaths per 1000 live births.

Internal migration: a permanent change of residence within a country for at least twelve months which involves crossing of geo-political boundaries.

Life Expectancy at Birth (LEB): a hypothetical measure that estimates the average number of years that a new born could expect to live if he/she had to live all his/her life under the current mortality conditions. Life expectancy for any given age is the number of years a person of that age would expect to live under the current mortality conditions.

Life Table: a tabulation presenting the probability of dying in the next interval, as a fraction of the current age. It provides the computation of life expectancy and other functions related to mortality. Abridged life table in broader age groups: 0-4, 5-9, etc. Complete life table: in single year age groups.

Maternal Mortality Rate (MMR): the annual number of female deaths per 1000 live births from pregnancy-related causes. It can be converted to the Maternal Mortality Ratio by dividing it by the General Fertility Rate during the year preceding the survey.

Maternal Mortality Ratio (MMR): the number of women who die from any pregnancy-related cause for a specified year per 100,000 live births. It can be converted to the Maternal Mortality Rate by multiplying it by the General Fertility Rate.

Mean Age at Childbearing: is defined as the average age of women at their first birth.

Migration: (international or internal), is defined as the movement of people across a specified boundary for the purpose of establishing a new residence.

Model Life Table: one of model life tables from a range of mortality life tables found in human populations (empirical or relational life tables).

Mortality: relates to the number of deaths that occur in a population.

Natural Increase: Births minus deaths at some time t: B(t) - D(t)

Net Migration Rate: net effect of immigration and emigration on a given population, expressed as either increase or decrease per 1,000 inhabitants in a given year.

Old-age Population: consists of persons aged 65 years and above.

Nuptiality: these are marital levels and patterns in a given population.

Parity: denotes the number of live births a woman has already given birth to.

Population Census: is a system that collects data on the members of a population usually every 5 or 10 years. In Zimbabwe, the census is conducted every 10 years.

Population Change: increase or decrease of the population size within a given time interval, caused by births, deaths and migration.

Population Density: number of persons per square kilometre.

Population Dynamics: concept that addresses the changes or evolution of a population over time as a result of births, deaths and migration.

Population Growth Rate: rate at which a population grows during a given year, as the result of natural increase plus net migration; expressed as percentage of the base population.

Private Household: is defined as a household with a single person or a group of people living together voluntarily, having common housekeeping arrangements and may consist of related or unrelated persons.

Population Projections: are scenarios of what future populations might look like under given assumptions of fertility, mortality and migration.

Population Pyramid: a diagram showing the distribution of a human population by sex and age at a given time. (A population whose age structure has a broad base and sharp narrow peak is said to be "young", while a structure whose base is not much wider than the rest of the pyramid is "old".)

Population Size: the total number of persons in a specified geographical area at a specified point in time.

Rate of Natural Increase: the difference between crude birth rate and crude death rate, or (live births- deaths)/midyear population)

Rate of Population Growth: surplus of births over deaths plus a surplus of immigrants over emigrants.

School-age Population: in Zimbabwe is the population aged 3-18 years, classified by pre-school (3-6 years), primary (7-12 years), secondary (13-18 years); with college/university (19-24 years).

Sex Ratio: is defined as the number of males per 100 females in a population.

Stable Population: has over a long time, both age specific fertility rates and age specific death rates constant, and is closed to migration. Such a population develops a constant rate of growth and a constant age structure.

Stationary Population: has a stable population structure with respect to both fertility and mortality rates but with zero rate of population growth. Consequently, it has constant size and unchanging age structure.

Under-five Mortality: probability of dying between birth and fifth birthday, expressed as deaths per 1,000 live births.

Working-age Population: is generally defined as population aged 15-64 years.

Youth: in Zimbabwe it is officially defined as the population aged 15-35 years.

1. Introduction

1.1. Overview

An ideal situation demographically and developmentally is characterized by an optimum population, which is an approximate number of people in a given country that allows communities to sustain a decent standard of living without compromising the quality of life of future generations. And populations can reach that optimum through a balance between the three components of growth which are fertility, mortality and migration. Population policies are thus intended to effect the necessary changes in these three components with the objective of achieving set demographic and developmental targets. Fertility is the component of growth most amenable to manipulation, that is, it is acceptable to intervene with the view to increase or reduce it; however, interventions on mortality can only be intended to reduce mortality and never to increase it; and while entry into a country can be reduced or increased, designing a programme to make people leave their country of origin is unacceptable.

It is important to note that globally, populations have attained variable levels of growth some of which are not conducive to sustainable development. For instance, some Northern countries have achieved very low levels of fertility and mortality culminating into negative growth rates and aging populations. For instance in 2014, both Bulgaria and Serbia had a rate of growth of -.5%; the proportions of the populations which were 65+ years were 20% and 18% respectively, while the population below fifteen years was 14% of the total for both countries. The total fertility rates (TFR) for Bulgaria and Serbia were 1.5 and 1.4 respectively (USAID, 2014). On the other hand, Zimbabwe was reported as having a rate of population growth of 2.4, with 3% and 40% comprising populations aged above 65 and less than 15 years, respectively (Ibid). It is clear that once the currently working population in the aforementioned Northern countries has reached retirement ages, there will be a critical shortage of labour. On the other hand, Zimbabwe currently has excess labour force culminating in high rates of unemployment. The challenge that has not yet been effectively addressed globally is the management of fertility such that it remains high enough for the achievement of optimum populations. Efforts to date have been concentrating on designing and funding programmes to reduce fertility, especially in developing nations; very little has

been done to effectively increase the very low fertility levels in the developed nations. Thus, developing countries, Zimbabwe included, have this lesson to learn: there is need for policies which can sustain fertility at least at replacement levels; there are limited, if any, success stories with effective policies aimed at increasing fertility which can be drawn from for replication and/or adaptation. Hence, it is necessary for countries which are still experiencing above replacement fertility levels, to seriously monitor their fertility levels in order to design and implement suitable programmes which can avoid the seemingly irreversible fertility downturn thus far experienced in most Northern countries.

Beyond fertility being a component of population change, it is an important determinant of maternal reproductive health and infant and child health. For instance, fertility which is too early in life, too late in life, too closely spaced and too much, has serious negative implications on both maternal and infant health. This thematic analysis on fertility forms a partial base against which to set Zimbabwean population targets aimed at achieving an optimum population, indeed acceptable maternal and child health.

1.2. Zimbabwe's commitment to fertility as a population and development issue

Zimbabwe's commitment to fertility as a population and development issue is summarized in the ensuing brief which shows efforts which have been aimed at intervening on fertility with the view of reducing its levels and the health threats attached to it.

Modern family planning information and services was introduced in the country in 1953 in white communities. This programme had no impact on the majority black population which perceived family planning as a genocidal gimmick for population limitation by the White government (Mhloyi, 1992). However, at independence, government adopted a Primary Health Care approach to Health. With the view to effectively integrate family planning into the Primary Health Care initiative and national development initiatives, the government took over the running of the Family Planning Association in September 1981. According to the National Development Plan, 1981-1985 Zimbabwe was:

"committed to the Primary Health Care concept and Family Planning should be part of the Maternal and Child Health programme. Family Planning should be tackled as a developmental package which aims at raising the socio-economic conditions of all Zimbabweans."(Government of Zimbabwe, 1982).

The new government went through a process of changing the image of the Family

Planning programme to put it in line with the aspirations of the people to the extent that the Family Planning outfit changed names up until the Zimbabwe National Family Planning Council Act of 1985 set up the Zimbabwe National Family Planning Council as a parastatal in the Ministry of Health. From then, family planning services expanded immensely resulting in an increase of family planning prevalence from about 14 percent in 1982 to 43 percent in62% in 2010/11 (Zinanga,1992).

In 1998, the Population Policy was developed and it became the primary document guiding the population agenda in Zimbabwe. It was also the guiding document to many subsequent policy documents and statutory instruments such as, among others: Zimbabwe National Family Planning Council Act 1984; National HIV/AIDS Policy, 1999 and 2002; National Reproductive Health Policy 2003 (including RH and FP Service Delivery Guidelines); National Gender Policy, 2003; (including STI &HIV/AIDS Strategic Plans); National Health Strategy 2010-2015; Zimbabwe Maternal and Neonatal Health Road Map; National Youth Policy; Child Survival Strategy, Poverty Reduction Strategies, Economic Development Plans (Medium Term Plan 2011-2015, and currently the ZIM ASSET (Government Documents).

In 1994, at the International Conference on Population and Development (ICPD) in Cairo, Zimbabwe adopted the 20 year Programme of Action whose main objective was to raise the quality of life of human beings, and to promote human development in the subsequent 20 years which focused on the achievement of sustained economic growth, eradication of poverty, increasing access to education, especially for girls, promotion of gender equity and equality, and provision of universal access to comprehensive reproductive health services including family planning, and HIV prevention, mitigation and support. In September, 2000, the government of Zimbabwe also adopted the Millennium Declaration adopted by the Heads of State and Government at the 55th Session of the United Nations General Assembly. From the eight Millennium Development Goals, the government of Zimbabwe prioritized three

goals: Poverty; Empowerment of Women; and HIV/AIDS. Currently Government is using the Zim Asset (Government of Zimbabwe, 2013).

It is apparent from the efforts made thus far, that Zimbabwe has a keen and well-articulated interest and focus on population and development issues of which fertility is core. A deeper understanding of fertility, its levels, trends and determinants would no doubt enhance national planning programmes. What has been done thus far in this direction?

1.3. Background

National data for Zimbabwe is best captured by censuses the first of which was in 1901. However, consistent with Zimbabwe's political history, a peripheralization of the African population is characteristic of all censuses undertaken between 1901 and 1962. These initial censuses did not capture data for the African population until 1962 when the census provided, for the first time, data on the African population by sex and age. Subsequent censuses, those of 1969, 1982, 1992, 2002 and 20012, all covered the entire population. Data are however available partially for the 1982 census, and fully for the subsequent censuses. These census data are complemented by survey data. The first survey which covered fertility was the Reproductive Health Survey of 1984; however, the data are not easily accessible. This survey was subsequently followed by the Demographic Health Surveys (ZDHS) of 1988, 1994, 1999, 2005-6 and 2010-11.

The data from the censuses can estimate the three components of population growth: fertility, mortality and migration, and the consequent rate of population growth. However, these data are very limited in their coverage, especially of the determinants of the three components. For instance, the only proximate determinant of fertility available is nuptiality. In order to enhance the understanding of fertility and nuptiality levels and trends, one has to draw from the ZDHSs. While this analysis is mainly of the 2012 census, wherever possible, estimates from the earlier censuses will be derived in order to discern trends. To enhance the understanding of such estimates, further evidence will be drawn from survey data.

Evidence from census data shows that Zimbabwean fertility is in transition. Total fertility rate (TFR) as estimated from the 1969 census was 7.1 (Mzite, 1981), while that from the 1982, 92, 2002 and 2012 censuses was 5.6, 4.4, 3.6 and 3.7, respectively (Central Statistical Office, 1985; 1994; 2004; ZIMSTAT, 2012) – an implied decline of about 1.9 births during the 20-year inter-census period of 1982-2012. However, it is important to note that census data generally underestimate fertility given the problems associated with retrospective data on fertility- memory lapse; and the use of proxies where the mothers are absent. Thus, one cannot be certain as to the actual fertility levels and trends without undertaking some indirect estimation which would correct for some of such errors. The validity of trends can also be enhanced by an understanding of the levels and trends of its proximate determinants, and the only such determinant whose data are available in the censuses is nuptiality.

Nuptiality levels and patterns reflect the demographic characteristics, socio-cultural norms and values, and the economic situation of a particular group or country; however, demographers have been interested in nuptiality largely as an important determinant of fertility. Nuptiality is often used as a proxy for the exposure to sex, hence pregnancy. Thus, the impact of nuptiality on fertility is largely determined by the extent to which sex and childbearing occurs within marriage. In those societies where child bearing out of marriage is stigmatized, sexual experience alone will not be a good measure of exposure, but safety of sex measured by the degree of contraceptive use. Contraceptive use data are only available in survey data, hence cannot be assessed in the current study.

Data from Demographic Health Surveys tend to suggest that there is significant fertility occurring out of marriage; albeit with married women experiencing higher fertility than their single counterparts. However, the mean number of children ever born (CEB; life time fertility) has declined for both married and single women between 1984 and 2010-11, and this decline is more among married women than single women as shown in Table 1 below. While fertility, as measured by the number of children ever born among married women declined from 4.1 in 1988 to 2.5 in 2010-11, a reduction of 1,6; fertility among all women irrespective of marital status declined from 3.0 in 1988 to 2.0 in 2010-11, a reduction of 1.0 child. Thus, a -39% reduction in fertility was recorded among married women; this compares to a -33% decline among all women irrespective of their marital status. It is also important to

note that while the decline in fertility between the respective surveys was quite comparable between married women and all women, the significant difference between the two was recorded between the 2005-6 and 2010-11 surveys. For instance, while the decline in fertility was about -7% for married women, it was 0% for all women; implying some increase in fertility of single women. While the general expected positive relationship between marriage and fertility holds, the gap between fertility of married and single women is closing. For instance, while fertility for all women was approximately 73 percent of that of married women in 1988, it was 80% in 2010-11.

Table 1: Mean number of children ever born to women 15-49 years old: ZDHS 1988, 1994. 1999, 2005/6 and 2010/11

Year	Status	% Children ever born	Percentage change
1988	Married All women	4.1 3.0	- -
1994	Married All women	3.3 2.4	- .20 -.20
1999	Married All women	2.9 2.1	-.12 -.13
2005/6	Married All women	2.7 2.0	-.07 -.05
2010/11	Married All women	2.5 2.0	-.07 .00
1988-2010-11	Married All women		-.39 -.33

Sources: CSO: 1985, 1989, 1995, 2000, 2006; ZIMSTAT, 2012.

What has been the impact of nuptiality on these fertility levels? A study on the fertility inhibiting effects of three proximate determinants of fertility: contraception, marriage and

postpartum infecundability between 1999 and 2005 showed that while the inhibiting effects of contraception on fertility in 1999 was a reduction of fertility by 54%, it was 39% for marriage and 37% for postpartum infecundability. And while the inhibiting effects of contraception increased to 62% that of marriage declined to 38% in 2005/6. The effect of postpartum infecundability did not change (Gamba, 2011, Masters Thesis). As inferred earlier, the contribution of married women to national fertility has been declining. A re-analysis of census data would assist in confirming the actual levels of fertility and perhaps more accurately the fertility trends. And an understanding of the one proximate determinant, nuptiality, will also be enhanced.

1.4. Objectives

The overall objective of this study is therefore to undertake further analysis of the 2012 census with the view of providing more insights into fertility levels and trends in Zimbabwe. Using data for 2012 census, the specific objectives are to:

- Assess nuptiality levels and trends;
- Use indirect estimation techniques to estimate fertility; and,
- Repeat the above analyses for 1992 and 2002 censuses in order to discern trends.

2. Theoretical Framework and Methodology

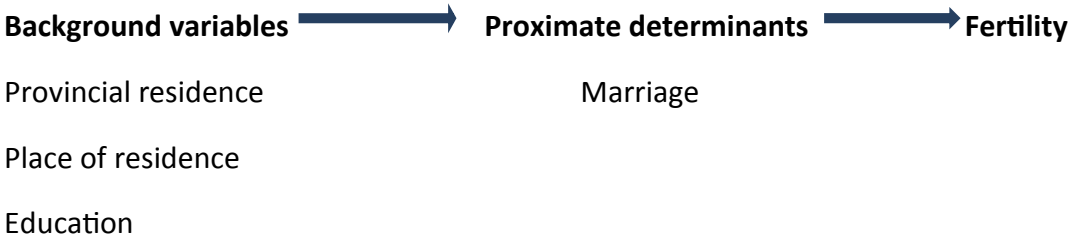
2.1. Theoretical Framework

This analysis follows a simple analytical framework which assumes fertility, measured either as CEB, or TFR (Figure 1), as a function of proximate determinants. Only one proximate determinant is available in census data and that is nuptiality. Marriage is used as a proxy to measure the risk of exposure to sex, hence pregnancy and subsequent fertility. Thus, marriage is expected to be positively related to fertility.

Three background variables are available namely: province, place of residence and education. In Zimbabwe, provincial boundaries are largely predicated by ethnicity. For instance, the Matebeleland provinces are largely dominated by variable Ndebele people, while the Mashonaland provinces are of the Shona people in their diversity. And Manicaland province is home to different ethnic groups comprising Manyika people. One must hasten to add, that in all these large sub-divisions are many sub-sub ethnic groupings which are not in any way clearly recognized and/or identified. That is, there is vast heterogeneity within the seemingly homogeneous ethnic groups. The different ethnic groups have unique norms and values guarding marriage and reproduction. Hence, proximate determinants of fertility, marriage in this case, is expected to vary across provinces. Commensurately, fertility is expected to vary across provinces.

Education and urbanization are the two modernization variables which often erode the general ethnic norms and values guarding reproduction. A negative relationship between education and fertility is expected. Urbanization is also expected to be negatively related to fertility.

Figure 1: Theoretical Framework on Fertility Determinants



2.2. Methodology

As noted above, two measures of fertility are used in this analysis: lifetime fertility as measured by the reported number of children ever born and total fertility rate which is derived from reported births in the twelve months preceding the census. Levels of these indices are assessed, and these indices are subsequently linked to marriage while they are controlled by the background variables. Cross tabulations are generally used to assess the relationship between fertility and the background variables. Direct and indirect estimation techniques are used to estimate TFR. Respective methods for the assessment of nuptiality and fertility are further discussed below.

2.2.1 Nuptiality

Percentage distributions of marital status classified by year and gender are used to assess nuptiality levels and patterns. Median age at first marriage cannot be derived since there are no data on age at first marriage. Instead, singulate mean age at marriage (SMAM), which uses proportions married at respective ages, is calculated (Preston. et. al., 2001).

2.2.2 Fertility

First, an evaluation of the quality of reported data on fertility is made before the estimation of fertility levels. Data on lifetime fertility are subject to reporting errors. First, there is memory lapse with increasing age culminating in possible omission of some births. Second, fertility data are best reported by the mother; however, in all the three censuses, data on children ever born were sometimes collected from a proxy respondent where the mother was absent. The proxy respondent is likely to be less knowledgeable about children in the household,

especially those children who reside elsewhere, and those who have died. These two possible sources of error lead to an underestimation of parities.

In order to test for misreporting, reported parities are plotted by age of mother. If the quality of reporting on lifetime fertility varies significantly across women's age, this will appear in the curve of the mean parities. It is expected that the mean parities should systematically increase with women's age as each parity should be above that of the previous age group in a natural fertility regime (Moultrie, 2013), the reverse implies omission of some births. A moderate increase in average parities is thus expected at the early and late stages of reproductive life, it should be faster in between. Although fertility is declining in Zimbabwe, the plot of parities should not deviate significantly with the expected.

Another possible error on the reporting of lifetime fertility is over reporting. Women are expected to have given a certain number of children at given ages. However, parities reported by some women exceed the number of children a woman can normally have given her age. Thus, the plausibility of reported lifetime fertility by women of respective age groups is another indicator of quality of data. Implausible parities should be removed from the data before running mean parities. A procedure suggested by Moultrie et-al (2013) is used for the cleaning of such errors; the method is elaborated in the presentation of findings.

Data on current fertility may be affected by misreporting which must be corrected for when estimating fertility. Three indirect estimation techniques which use the P/F ratios for the adjustment of current fertility: the Brass PF Ratio method and the Gompertz Relational Curve (demographicestimation.iussp.org; 2014; Maoultrie, 2013), and the P/F ratio method which uses the Brass P/F ratios modified by Arriaga and is implemented in MortPak (UN, 2003) were used for the indirect estimation of current fertility from the 1992, 2002 and 2012 censuses. These methods assume that fertility for younger women are more accurately reported compared to those of older women, hence, the average fertility of women aged 20-24 and 25-29 were used as correction factors.

3. Findings

3.1. Nuptiality levels and differentials

Nuptiality has changed during the 20-year inter-census period of 1992-2012; the gender differentials have reduced slightly (Table 2). Women are more likely to be in current marriage compared to their male counterparts. While women were 1.1 times more likely to be married than males in 1992; they were 1.02 times more likely to be married than their male counterparts in 2012. Women are also more likely to be divorced; they were about 2.6 times more likely to be divorced than males in both 1992 and 2012; they were about 2.8 times more likely to be divorced in 2002. Women are also more likely to be widowed than males. In 1992, women were about 8 times more likely to be widowed than males, 6 and 7 times more likely to be widowed than males in 2002 and 2012, respectively.

Marriage has generally increased, especially among males. For instance, the proportions reporting current marriage was about 59%, 56% and 59% for females in 1992, 2002 and 2012, respectively. Comparable proportions for males were 54%, for both 1992 and 2002, and 58%, for 2012. Thus, while the proportion reporting current marriage increased by 8% for males during the 20-year inter census period, it increased by less than half a percent for females. Consistently, the proportion never married declined by about -12% and -17% for females and males, respectively, during the 20-year period.

Divorce rates have declined by about -4% and -3% for males and females, respectively, during the 20-year inter census period. However, the largest decline was during the 1992-2002 inter census period. It declined more for males (-16%) compared to females, -9%, however, it increased between 2002-2012by about 7% and 14% for females and males, respectively.

Widowhood increased during the 20-year inter census period, by 82% and 51% for females and 11% for males, respectively. The largest increase was during the 1992-2002 inter census period. Widowhood increased by 35% for females compared to 64% for males during this

period; it increased by 12% and 11% for females and males, respectively, during the 2002-2012 period.

Table 2: Marital Status by Gender: 1992, 2002 and 2012 Censuses

	1992		2002		%Change (1992-2002		2012		%Change (2002-2012)		%Change (1992-2012)	
	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males
Never Ma	25.7	42.3	26.1	42	1.56	-0.71	21.4	37.3	-18.01	-11.19	-16.73	-11.82
Married	58.8	54.1	56.1	54.1	-4.59	0.00	59.1	58.2	5.35	7.58	0.51	7.58
Divorced	6.8	2.6	6.2	2.2	-8.82	-15.38	6.6	2.5	6.45	13.64	-2.94	-3.85
Widowed	8.6	1.1	11.6	1.8	34.88	63.64	13	2	12.07	11.11	51.16	81.82

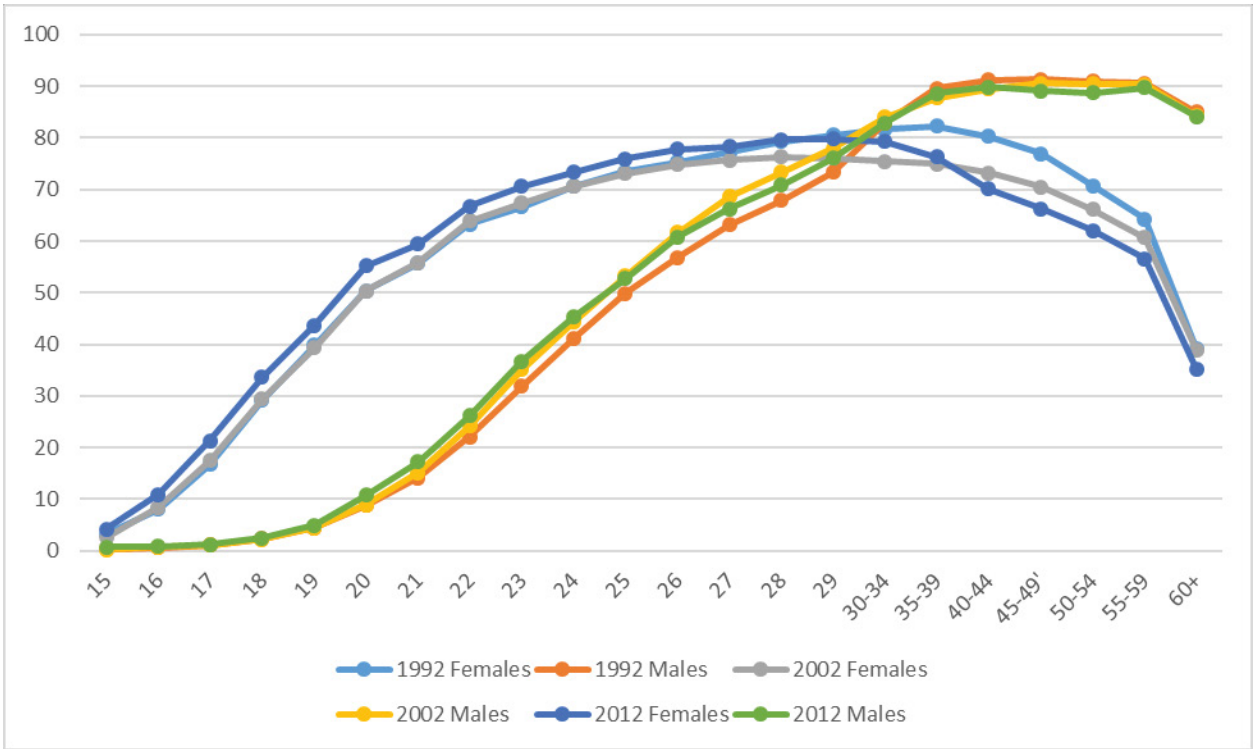
3.2. Nuptiality differentials

Aggregate data camouflage age patterns and differentials in nuptiality. Nuptiality data by age across all the census years show that marriage is almost universal. Referring to data from the 2012 census (Table 3) approximately 98% of both males and females ever marry (See Appendix Tables A1 and A2 for 1992 and 2002). Women marry earlier than their male counterparts; however, their peak level of current marriage is lower than that for males (Fig 2). For instance, 44% and 5% of females and males, respectively, report being currently married at exact age 19. By exact age 24, 73% of women were married compared to 45% of men. Note that the peak of current marriage is 80% for women at exact age 29; it is 90% for males at 40-44 years.

Women are more likely to be currently married than men up to age 29 after which the reverse is true (Fig. 2). This reversal can partly be explained by the fact that women are more likely to be currently divorced and widowed after that age as highlighted above. While the peak level of divorce is 10% for women at age 30-34 years; it peaks at 4% for men at ages 35-55. On the other hand, the peak widowhood level for women is 59% compared to 11% for males, both after age 60. Implicit in these rates is the fact that men tend to remarry soon after marital dissolution, be it as a result of death of a spouse or divorce. (Re-marriage rates cannot be

estimated from census data). In turn, these implied high levels of re-marriage have serious implied negative implications on the spread of HIV.

Figure 2: Proportions Currently Married by Gender by Year



Consistent with the slight increase in marriage is a slight decrease in the SMAM. SMAM slightly decreased by -1% and -2% for males and females, respectively, between 1992 and 2012. It was about 20 years for males and 18 years for females during the 20-year inter census period.

Table 3: Marital Status by Age and Gender, Zimbabwe, 2012 Census

	Never Married		Married		Divorced		Widowed	
Age	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
15	95.45	99.13	4.17	0.73	0.32	0.11	0.06	0.04
16	88.23	98.94	10.96	0.91	0.75	0.12	0.07	0.03
17	77.09	98.56	21.36	1.28	1.46	0.13	0.09	0.03
18	63.69	97.32	33.68	2.46	2.49	0.18	0.14	0.04
19	52.48	94.74	43.73	4.90	3.58	0.33	0.21	0.03
20	39.79	88.53	55.19	10.76	4.69	0.65	0.33	0.06
21	34.52	81.76	59.46	17.26	5.61	0.91	0.41	0.07
22	26.42	72.48	66.75	26.18	6.28	1.25	0.55	0.10
23	21.83	61.54	70.56	36.68	6.90	1.67	0.71	0.11
24	18.21	52.48	73.41	45.33	7.52	2.05	0.86	0.13
25	15.18	44.59	75.94	52.74	7.75	2.48	1.14	0.19
26	12.87	36.28	77.79	60.82	8.03	2.69	1.31	0.21
27	11.33	30.30	78.27	66.33	8.63	3.08	1.77	0.29
28	9.53	25.38	79.69	70.92	8.68	3.42	2.10	0.28
29	8.59	20.09	79.80	76.12	9.04	3.44	2.57	0.35
30-34	6.61	12.53	79.25	82.90	9.46	3.90	4.68	0.67
35-39	4.57	6.20	76.33	88.57	9.39	3.94	9.72	1.29
40-44	3.99	4.25	70.16	89.82	9.31	3.76	16.53	2.17
45-49'	3.05	3.60	66.30	89.14	8.50	3.83	22.15	3.43
50-54	2.34	3.02	62.03	88.76	7.09	3.72	28.53	4.50
55-59	1.93	2.14	56.65	89.73	6.44	3.11	34.98	5.01
60+	1.68	1.82	35.20	84.12	4.29	2.91	58.82	11.15
Total	**21.38**	**37.28**	**59.07**	**58.23**	**6.58**	**2.53**	**12.97**	**1.96**

Nuptiality differs significantly between and within provinces, and district differentials persisted during the 20-year inter census period (Tables A3-A5). The difference between the highest and lowest level of non marriage was 17 and 26 percentage points for males and females respectively in 1992; this difference increased to 30 and 29 percentage points for males and females, respectively in 2002, but declined to 19 and 24 percentage points, respectively in 2012. Note however, that district differentials across censuses might partly be an artifact of definitional differences in some instances.

While the proportion reporting being never married was 42% for males at national level in 1992, it was lowest in Harare rural (34%) and Centenary (35%), respectively, and highest in Bulilimamangwe, Buhera and Chivi (51%). And while the proportion never married for women was 26% at national level, it was lowest in Binga (14%) and highest in Gwanda urban (40%). The proportions married among males was 54% at national level, it was consistently lowest in Buliliamamangwe (43%) and Tsholotsho (44%), and highest in Harare rural (62%), Centenary and Masvingo (61%) respectively. On the other hand, the highest levels of marriage among women were recorded in Binga and Kariba (71%) and Chirundu (70%), while the lowest were recorded in Gwanda and Zvishavane urban, as 47%.

In 2002, the highest proportion married among males, 68%, was recorded in Uzumbamarambapfungwe (UMP), while the lowest level, 38%, was recorded in Kamativi and Harare rural. And the highest level of marriage among females, 74%, was recorded in Chegutu rural and Rushinga; the lowest, 41%, was recorded in Brompton and Guruve.

In 2012, the highest level of marriage among males, 68%, was recorded in Harare rural and Epworth; while the lowest, 36%, was recorded in Bulilimamagwe. And the highest level of marriage among females, 71%, was recorded in Muzarabani while the lowest, 40%, was recorded in Bulilimamangwe.

District differentials on divorce rates have also changed during the 20-year inter census period. The difference between the lowest and highest divorce rate for males and females in

1992 was 4 and 11 percentage points, respectively; this compares to 3 and 6% respectively, in 2012.

In 1992 divorce rates for males ranged from 1% in Ruwa, Chipinge, Buhera and Nyanga to 5% in Hwange; they ranged from 4% in Ruwa and Nkayi to 18% in Zvishavane for females. In 2002, divorce rates among males ranged from 1% in 45 districts to 7% in Plumtree while those for females ranged from 1% inUMP and Kariba rural to 15% in Dalny. In 2012, the proportion divorced for males ranged from 1% in Gokwe North and Masvingo to 4% in Beitbridge rural, UMP, Marondera, Bubi and Hwange. Divorce rates among females ranged from 4% in Buhera and Gokwe North to 10% in Karoi, Beit Bridge and Gokwe Town.

Widowhood differentials among males ranged from 0% in Chirundu to 2% in Bulilimamangwe, Matobo, Chikomba, Makoni, Beitbridge and Chegutu, while that for females ranged from 0% in Chirundu to 15% in Bulilimamagwe. In 2002, widowhood among males ranged from 1% in 23 districts to 3% in Bulilimamangwe and Beitbridge. Among females, widowhood ranged between 6% in Harare rural, Ruwa and Hwange to 20% in Bulilima and Chikomba. There is no clearnuptiality pattern by district; however, one district is distinct among the rest, and this is Bulilimammangwe. Bulilimamangwe experienced the highest level of being never married among both males and females in 1992; and consistently the lowest level of marriage in both 1992 and 2012. Bulilimamangwe also has the highest level of widowhood for both males and females in 1992 and 2002.

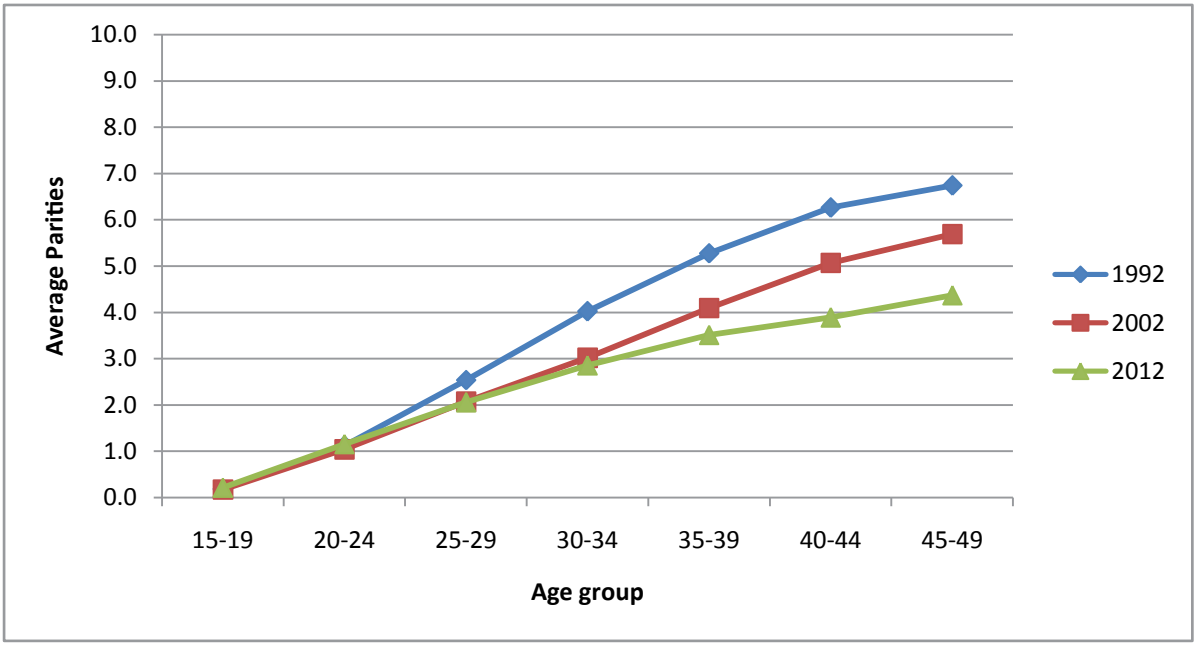
3.3. Fertility

3.3.1 Lifetime fertility

3.3.1.1 Completeness of reporting on children ever born

As noted in the section on methodology, one way to assess quality of reported data on CEB is to plot mean parities which should increase with age if the quality of data is good. The plotted curves for the three censuses are as expected (Figure 3). Parities systematically increase with age. There is little change in the reported parities for the younger age groups, 15-19 and 20-24; however, the parities show a systematic decline over the years. There is no evidence from this graph to suggest that births are more underreported in one age-group compared to the other.

Figure 3: Mean Parity by Age: 1992-2012, Zimbabwe, Census 2012



3.2.1.2 Plausibility of Reported Parities

Moultrie et.al (2013) suggest a means of correcting for over-reporting of CEB by assuming that on the average a women who is not contracepting would give birth after every 18 months. It was further assumed that a woman can start giving birth at age twelve. Thus, women aged 15-19 years would have a maximum of 5 children having been exposed for 8 years to child bearing, while those 20-24 would have about 8 children; at ages 45-49 women would be expected to have a maximum of 20 children. Note that these assumptions would over-estimate fertility in a controlling fertility regime, and where fertility starts latter than 12 years.

Using data from the 2012 census, implausible parities were most common in the 15-19 year age group up to age group 30-34 (Tables 4a and 4b). Such implausible parities are in bold in Table 4a. Table 4b shows the implausible parities treated as missing. This process was undertaken for all the data for the three censuses (Tables A6a and b and A7a and b).

Table 4a: Reported Parities by Age of Mother, Zimbabwe, 2012 Census

Reported parity	Age of Mother							
	15 – 19	20 - 24	25 – 29	30 - 34	35 - 39	40 - 44	45 – 49	Total
0	605643	232859	93046	42245	25229	18044	13960	1031026
1	75682	198747	118314	50480	26648	15369	8934	494174
2	19458	146749	191048	111102	60556	34475	19311	582699
3	6047	47262	125235	122141	83970	49063	28187	461905
4	3194	17182	54939	82408	76312	49047	32545	315627
5	1495	5470	17815	38704	48122	35837	27727	175170
6	**724**	2471	7533	18089	27730	23974	21362	101883
7	**288**	829	2209	6721	13208	13900	14086	51241
8	**86**	313	993	3130	6859	8025	9096	28502
9	**37**	**96**	324	1102	2922	4224	5222	13927
10	**17**	**51**	145	578	1470	2255	3078	7594
11	**5**	**16**	40	197	552	1035	1572	3417
12	**5**	**12**	37	129	329	592	868	1972
13	**4**	**3**	**10**	32	111	198	364	722
14	**3**	**2**	**10**	27	70	119	181	412
15	**1**	**4**	**8**	8	32	49	93	195
16	**0**	**1**	**2**	**9**	27	26	52	117
17	**0**	**0**	**1**	**2**	4	9	17	33
18	**1**	**2**	**0**	**5**	11	6	15	40
Total	**712690**	**652069**	**611709**	**477109**	**374162**	**256247**	**186670**	**3270656**

Table 4b: Corrected Reported Parities by Age of Mother, Zimbabwe, 2012 Census

Total children ever born	Age of Mother						
	15 – 19	20 – 24	25 - 29	30 – 34	35 – 39	40 – 44	45 - 49
0	605643	232859	93046	42245	25229	18044	13960
1	75682	198747	118314	50480	26648	15369	8934
2	19458	146749	191048	111102	60556	34475	19311
3	6047	47262	125235	122141	83970	49063	28187
4	3194	17182	54939	82408	76312	49047	32545
5	1495	5470	17815	38704	48122	35837	27727
6	**0**	2471	7533	18089	27730	23974	21362
7	**0**	829	2209	6721	13208	13900	14086
8	**0**	313	993	3130	6859	8025	9096
9	**0**	**0**	324	1102	2922	4224	5222
10	**0**	**0**	145	578	1470	2255	3078
11	**0**	**0**	40	197	552	1035	1572
12	**0**	**0**	37	129	329	592	868
13	**0**	**0**	**0**	32	111	198	364
14	**0**	**0**	**0**	27	70	119	181
15	**0**	**0**	**0**	8	32	49	93
16	**0**	**0**	**0**	**0**	27	26	52
17	**0**	**0**	**0**	**0**	4	9	17
18	**0**	**0**	**0**	**0**	11	6	15
Missing	1171	187	31	16	0	0	0
Total	**711519**	**651 882**	**611678**	**477093**	**374162**	**256247**	**186670**
Percent Missing	**0.164%**	**0.029%**	**0.005%**	**0.003%**	**0.000%**	**0.000%**	**0.000%**
Percent Childless	**84.98%**	**35.71%**	**15.21%**	**8.85%**	**6.74%**	**7.04%**	**7.48%**
Average Parities	**0.21**	**1.16**	**2.06**	**2.86**	**3.51**	**3.89**	**4.37**

Resultant parity data after the cleaning of implausible parities for the three censuses are shown in Table 5 below. It is clear that these data were cleaned for missing data, hence the

proportion of missing data which is nil inall the three censuses. As noted earlier, parities increase with age; from .2 births in the 15-19 age group to 6.7 among the 45-49-year age group in 1992. Comparable parities for 2002 are .2 to 5.7, respectively; they are .2to 4.4, respectively, for 2012.

Consistently, the proportion childless decreases with age, from 84% among the 15-19-year age group to about 4% for the 45-49-year age group in 2012. Childlessness ranges from 85% among the 15-19-year age group to 5% among the 45-49-year age group in 2002. Comparable proportions for 2012 are 85% and 8%, respectively. From these data, childlessness increased during the 20 year inter-census period, and thistrend is questionable. A comparison of these data with ZDHS data sheds light into this increasing trend.

ZDHS data show a declining trend in the proportion childless, from 3.4% for women 45-49 years old in 1988 to 2.6% in 2010-11 (Table A8). Childlessness was lowest in 1994, 1%; it was about 2% in 1999 and increased to about 2.6 from 2005-2011. Also worth noting is the fact thatthe lowest proportion of childlessness in census data, 4%, is higher than the highest proportion, 3%, from ZDHS data. And while the lowest level of childlessness was 1% in the 1994 ZDHS, this compares to the lowest of 4% in the 1992 census.

The pattern of childlessness is consistent across all censuses and surveys; it declines with age; however, it appears that census data over estimates childlessness. This is likely a consequence of memory lapse which often increases with age, and/or the omission of dead children by older women. These errors are likely to be exacerbated by the fact that data on absent mothers were collected from proxy respondents in the censuses.

Table 5: Parity Data by Age of Mother by Year

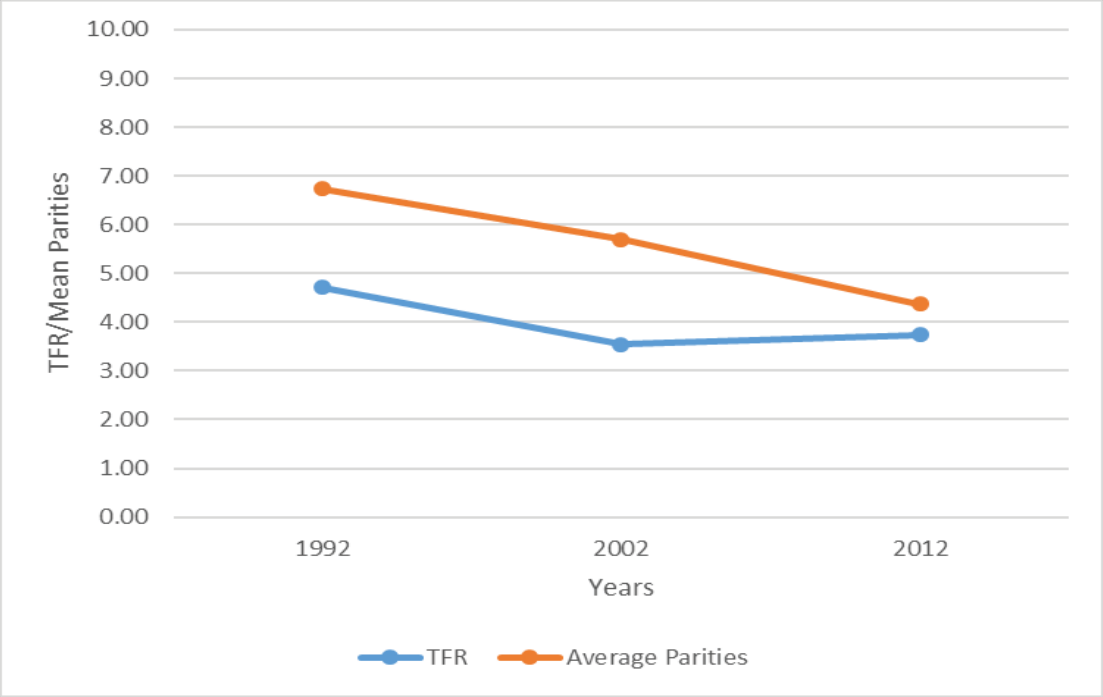
Age of Mother	1992		2002		2012			
	Percent Childless	Average Parities	Percent Childless	Average Parity	Missing	Percent Missing	Percent Childless	Average Parities
15 - 19	84.4	0.2	85.2	0.8	1171	0.002	85	0.2
20 – 24	34.9	1.1	35.2	1	187	0.002	36	1.2
25 - 29	11.1	2.5	12.7	2.1	31	0.002	15.2	2.1
30 – 34	5.2	4	7.3	3	16	0.002	9	2.9
35 – 39	3.8	5.5	5.2	4.1	0	0.002	6.7	3.5
40 – 44	3.6	6.3	4.7	5.1	0	0.002	7	3.9
45 - 49	4	6.7	5.2	5.7	0	0.002	7.5	4.4

Note: Percent childless is zero for the 1992 data implying that the data imputed.

Reporting on current fertility is more reliable than that on lifetime fertility given that it is highly improbable that women can forget exact timing of births within twelve months of the data collection. The composite index for current fertility is total fertility rate (TFR), which is the average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were to experience the age specific rates (ASFRs) in a given country in a given year t. It is calculated by summing the ASFRs and multiplying the sum by the width of the age interval. TFR is therefore expected to be comparable to mean parity for those women 45-49 years old in a situation of constant fertility. Given the declining fertility in Zimbabwe, mean parities must be higher than TFR given that women aged 45-49 in 1992 started giving birth around 1955-1959, while those who were 45-49 in 2012 started giving birth around 1975-79, (this assumes childbearing starting at age 12) a period when fertility was natural with family planning unheard of among the majority African population. In essence, this is a comparison between a natural and controlling fertility regime. It is thus expected that mean parities for women aged 45-49 years must be systematically higher than the TFRs.

A plot of TFRs and parities for women aged 45-49 years is as expected (Figure 4). The mean parities are systematically higher than the TFRs; albeit displaying the same declining trend. The difference between mean parities and TFR is eroding. While TFRs for both 1992 and 2002 is about two children; it is about half a child in 2012. Mean parity for women aged 45-49 years in 1992 was 6.7, TFR was estimated at 3,7. And while mean parity in 2002 was estimated as 5.7, TFR was estimated at 3.6. Comparable estimates are 4.4 and 3.8 respectively for 2012.

Figure 4: Mean parities for 45-49 year old women and Total Fertility Rates, 1992, 2002 and 2012 Censuses



The above assessment shows that data from all the three censuses do not suggest any significant flaws warranting major corrections in reported parities. Childlessness decreases with age, while parities increase with age as expected. Implausibility of reported parities is insignificant to the extent that corrections made do not have any significant impact on the data. An assessment of parity differentials will also show any consistency or lack of it in the reported parity data.

3.2.1.3 Parity Differentials

Findings on parity differentials are consistent across censuses; expected relationships between fertility and nuptiality, place of residence, province and education also hold (Table 6). A positive relationship between fertility and marriage holds across censuses. Considering women who are 45-49 years, women who have ever married have higher fertility than those who have never married. Women who are currently in marriage had the highest fertility in all the three censuses. In 1992, currently married women had 7.1 CEB; they were followed by women who were widowed (6.5 CEB), divorced (4.9 CEB) and never married (3.1CEB).

Comparable levels during 2002 were 6.0, 5.5, 4.1 and 2,7 CEB, respectively. They were 4.7, 4.2 3.3 and 1.9, respectively in 2012. Fertility for currently married women was about 2.3 times higher than that of never married in both 1992 and 2002; it was 2.5 times higher in 2012.

Fertility declined across the marital groups during the 20-year inter-census period. The largest declines were among the 40-49 age groups. In particular, the 40-44 year age group experienced the highest declines among all marital groups except among currently married women where the 45-49 age groups experienced the highest decline. And never married women experienced the largest decline compared to ever married women.

Fertility decline was higher and universal across marital groups during the 1992-2002 inter census period than during the 2002-2012 inter census period. The largest decline across marital groups was experienced by the 30-34 year age group, - 29% and -24% among never married and married women, respectively. The declines were -21% and -27% among divorced and widowed women, respectively. Thus, the never married had the highest decline.

The trend between 2002 and 2012 is not consistent across age and marital groups. Fertility decline was highest among the 40-49 year age group whose decline during this period exceeded that of the 1992-2002 period. Comparable to the pattern shown for the entire 20 year inter census period, the 40-44 age group experienced a larger decline than the 45-49-year age group among all the marital groups except among the currently married group where the 45-49-year age group experienced larger declines than the 40-44 year age group.

While fertility decline for older women accelerated during the 20-year inter-census period, the decline reduced for the younger age groups, while for some it reversed. In fact, fertility for currently married women aged 20-24 years increased by about 1% between 2002 and 2012. This was also true for women 20-24 and 25-29 years for women who were divorced; their fertility increased by about 5% and 4%, respectively.

Table 6: Life-time Fertility by Nuptiality, Zimbabwe, 2012 Census

Age of Mother	1992	2002	2012	% Change 1992-2002	% Change (2002-2012)	%Change (1992-2012)
			Never Married			
15-19	0.05	0.04	0.03	-20.4	-15.4	-32.6
20-24	0.33	0.28	0.26	-15.3	-8.7	-22.7
25-29	0.96	0.75	0.67	-21.5	-11.4	-30.5
30-34	1.75	1.25	1.08	-28.9	-13.2	-38.2
35-39	2.32	1.75	1.41	-24.9	-19.5	-39.5
40-44	2.74	2.25	1.56	-17.9	-30.5	-42.9
45-49	3.05	2.66	1.89	-12.6	-29.1	-38.1
			Married			
15-19	0.71	0.67	0.67	-4.9	-0.4	-5.3
20-24	1.51	1.41	1.43	-6.4	1.2	-5.2
25-29	2.82	2.32	2.27	-17.8	-1.9	-19.4
30-34	4.3	3.29	3.06	-23.5	-6.9	-28.8
35-39	5.6	4.41	3.82	-21.2	-13.3	-31.7
40-44	6.61	5.41	4.27	-18.1	-21.0	-35.4
45-49	7.09	6.03	4.74	-14.9	-21.4	-33.2
			Divorced			
15-19	0.99	0.92	0.88	-6.9	-4.7	-11.2
20-24	1.44	1.34	1.4	-7.2	4.8	-2.7
25-29	2.18	1.84	1.91	-15.8	4.2	-12.3
30-34	2.99	2.37	2.28	-21.0	-3.4	-23.7
35-39	3.73	3.03	2.64	-18.7	-12.9	-29.2
40-44	4.4	3.64	2.9	-17.4	-20.3	-34.1
45-49	4.85	4.11	3.27	-15.3	-20.5	-32.7
			Widowed			
15-19	0.85	0.83	0.65	-3.0	-21.2	-23.6
20-24	1.66	1.57	1.5	-5.9	-3.9	-9.6
25-29	2.73	2.18	2.21	-20.0	1.1	-19.1
30-34	3.97	2.88	2.7	-27.4	-6.4	-32.1
35-39	5.04	3.86	3.2	-23.5	-17.1	-36.5
40-44	5.96	4.82	3.59	-19.2	-25.5	-39.8
45-49	6.51	5.5	4.17	-15.5	-24.3	-36.0

Source: CSO 1992 and 2002 censuses; ZIMSTAT 2012 census

Findings on the relationship between fertility and urbanization are as expected. A positive relationship between parity and urbanization holds across the censuses. Urban women consistently have lower parities than rural women across all the age groups, and across all censuses (Table 7). Taking 1992 as the base year, and looking at fertility for the 45-49 year

age group, urban women started at a lower level of fertility, 5.5 CEB, compared to rural women, 7.2 CEB. In 2002, urban fertility had declined to 4.6 CEB compared to 6.2 CEB in rural areas. Comparable mean parities in 2012 were 3.5 and 4.9 CEB for urban and rural women, respectively. Thus, fertility has declined more in urban areas compared to rural areas. It declined by -37% in urban areas compared to -32% in rural areas between 1992 and 2012.

Fertility declined across all age groups in both rural and urban areas between 1992 and 2002. However, the decline is more in urban compared to rural areas. For instance, while fertility decline among rural young women, those aged 15-19 and 20-24 years was -3% and -2% respectively; it was -11% and -12% respectively, for urban women.

During the 2002 and 2012 inter-census period, fertility among young women, those aged 15-19 and 20-24 generally increased. The increase was more for rural compared to urban areas. For instance, while the mean CEB increased by 32% and 13%, respectively, for rural women; this compares to a -3% decline and a 2% increase for the same age groups in urban areas. (The magnitude of this decline is questionable though given the recorded level of fertility for 15-19 year age group which seems too high). Note however, the acceleration of fertility decline for women aged 40-49 years during the 20-year inter census periodin both rural and urban areas. In rural areas, the decline for the 40-44-year age group increased from -17% between 1992-2002, to -22% for the 2002-12 period. The decline for the 45-49-year age group increased from -14% to -21%. On the other hand, in urban areas, the decline for the 40-44-year age group increased from -21% during the 1992-2002, to -25% during the 2002-212 period. Comparable changes for the 45-49-year age group were -16% and -25%, respectively.

Table 7: Average Parities by Place of Residence, Zimbabwe, 2012 Census

Age of Mother	1992	2002	2012	% Change 1992-2002	% Change 2002-2012	%Change 1992-2012
			Rural			
15-19	0.21	0.2	0.27	-3.3	32.3	28.0
20-24	1.26	1.24	1.4	-1.7	12.8	10.8
25-29	2.83	2.39	2.37	-15.6	-0.9	-16.4
30-34	4.41	3.44	3.22	-22.0	-6.3	-26.9
35-39	5.73	4.61	3.94	-19.6	-14.5	-31.3
40-44	6.72	5.57	4.38	-17.1	-21.5	-34.9
45-49	7.18	6.17	4.85	-14.1	-21.3	-32.4
			Urban			
15-19	0.15	0.13	0.13	-10.9	-3.0	-13.6
20-24	0.92	0.81	0.82	-11.5	1.3	-10.4
25-29	2.14	1.68	1.64	-21.3	-2.4	-23.2
30-34	3.39	2.46	2.33	-27.5	-5.1	-31.2
35-39	4.42	3.3	2.81	-25.2	-14.9	-36.4
40-44	5.14	4.06	3.07	-21.0	-24.5	-40.3
45-49	5.48	4.58	3.46	-16.4	-24.6	-36.9

Source: CSO 1992 and 2002 censuses; ZIMSTAT 2012 census

There are significant parity differentials between provinces. Taking 1992 as the base year, it is clear that fertility levels were variable even before the observed fertility transition (Table 8). Harare and Bulawayo provinces, both of which are urban provinces, have consistently lower fertility than the eight rural provinces, with Bulawayo experiencing slightly lower fertility than Harare. Fertility has declined in all provinces. In 1992, fertility for women aged 45-49 ranged between Bulawayo with a mean parity of 5.2 children and Mashonaland Central with a mean parity of 7.4 children. Matabeleland North and Matebleand South had the lowest fertility among the rural provinces with mean parities of 6.9 and 6.5 children respectively. In 2002, fertility ranged between 4.3 in Bulawayo to 6.2 in Masvingo. Mashonaland East and Mashonaland West had the lowest mean parities of 5.8 and 5.9 respectively, among rural provinces. And in 2012, fertility ranged from 3.3 and 3.4 in Bulawayo and Harare, respectively, to 4.9 in Matabeleland North.

It is clear that the pace of decline was also variable between provinces during the 20-year inter-census period. Again, the age which experienced the largest decline across provinces is the 40-44 year age group. The percentage decline for this age group ranged from -32% and -33% in Matabeleland North and South, respectively, to -39% in Harare, Bulawayo,

Mashonaland West and Masvingo. The least decline occurred among young women, those aged 15-24 years. The largest decline in this age group was in Bulawayo, followed by Harare. The declines were -15% and -17% for 15-19, and 20-24 year age groups for Bulawayo. Comparable percentages were -7% and -9%, respectively, for Harare. Fertility declined by about -4% and -7% for the 15-19 and 20-24 year groups, respectively, for Matebeleand North. Otherwise fertility increased in these age groups in the other seven provinces, the largest increase being in Masvingo and Manicaland. Fertility for the 15-19 and 20-24-year age groups increased by 11% and 35%, respectively in Masvingo, and by 10% and 32% respectively, for Manicaland.

Thus, while fertility started at a lower level in Matabeleland, the decline was slower compared to other provinces resulting in Matebelaland North experiencing the highest fertility by 2012. There was generally an increase in fertility among young people, with the exception of Harare, Bulawayo and Matabeleland North. Fertility differentials have thus reduced during the inter-census period. The difference between the lowest parity of 3.3 in Bulawayo and the highest mean parity of 4.9 in Matabeleland North province was 1.6 in 2012 compared to 2.2 in 1992.

Table 8: Mean Parities by Province and Year, Zimbabwe, 2012 Census

Age of Mother	1992	2002	2012	% Change 1992-2002	% Change 2002-2012	%Change 1992-2012
Bulawayo						
15-19	0.13	0.1	0.11	-25.11	12.95	-15.41
20-24	0.89	0.72	0.74	-18.87	2.5	-16.84
25-29	2.02	1.59	1.52	-21.13	-4.44	-24.63
30-34	3.16	2.36	2.17	-25.34	-8.01	-31.33
35-39	4.14	3.15	2.67	-23.77	-15.42	-35.53
40-44	4.8	3.86	2.95	-19.58	-23.67	-38.62
45-49	5.15	4.33	3.32	-15.83	-23.35	-35.48
Manicaland						
15-19	0.18	0.17	0.24	-7.97	43.3	31.88
20-24	1.21	1.14	1.33	-5.8	16.56	9.8
25-29	2.77	2.27	2.32	-17.91	2.02	-16.25
30-34	4.34	3.36	3.2	-22.62	-4.67	-26.23
35-39	5.64	4.51	3.89	-20	-13.7	-30.96
40-44	6.66	5.51	4.31	-17.21	-21.71	-35.18
45-49	7.14	6.09	4.8	-14.65	-21.26	-32.79
Mashonaland Central						
15-19	0.25	0.26	0.31	1.53	19.55	21.38
20-24	1.35	1.3	1.48	-3.73	14.01	9.75
25-29	2.85	2.36	2.42	-16.93	2.5	-14.86
30-34	4.33	3.37	3.25	-22.16	-3.57	-24.94
35-39	5.65	4.5	3.94	-20.42	-12.41	-30.3
40-44	6.73	5.45	4.34	-19.02	-20.28	-35.44
45-49	7.36	6.12	4.82	-16.9	-21.24	-34.55
Mashonaland East						
15-19	0.2	0.21	0.25	1.08	20.77	22.08
20-24	1.2	1.18	1.31	-1.73	10.97	9.04
25-29	2.69	2.23	2.24	-17.22	0.88	-16.49
30-34	4.22	3.16	3.02	-25.23	-4.26	-28.42
35-39	5.52	4.22	3.64	-23.56	-13.65	-33.99
40-44	6.52	5.16	4.02	-20.8	-22.08	-38.29
45-49	6.95	5.81	4.5	-16.35	-22.57	-35.23
Mashonaland West						
15-19	0.25	0.24	0.26	-2.15	8.65	6.31
20-24	1.26	1.22	1.32	-3.2	7.59	4.15
25-29	2.71	2.23	2.25	-17.75	0.7	-17.17
30-34	4.17	3.14	3.01	-24.65	-4.09	-27.73
35-39	5.49	4.26	3.63	-22.33	-14.85	-33.87
40-44	6.54	5.22	4	-20.16	-23.48	-38.91
45-49	7.07	5.87	4.51	-16.92	-23.16	-36.16

Table 8: Mean Parities by Province and Year, Zimbabwe, 2012 Census (Cont.)

Age of Mother	1992	2002	2012	% Change 1992-2002	% Change 2002-2012	%Change 1992-2012
Matabeleland North						
15-19	0.27	0.21	0.26	-20.8	21.5	-3.8
20-24	1.35	1.2	1.26	-11.2	4.5	-7.2
25-29	2.78	2.36	2.14	-15.0	-9.4	-23.0
30-34	4.25	3.42	3	-19.6	-12.3	-29.4
35-39	5.46	4.58	3.82	-16.2	-16.7	-30.2
40-44	6.43	5.52	4.35	-14.1	-21.2	-32.3
45-49	6.86	6.12	4.86	-10.8	-20.5	-29.1
Matabeleland South						
15-19	0.21	0.19	0.25	-8.6	31.3	20.1
20-24	1.24	1.12	1.23	-9.6	9.5	-1.0
25-29	2.58	2.18	2.04	-15.4	-6.5	-20.9
30-34	3.95	3.15	2.81	-20.1	-11.1	-28.9
35-39	5.21	4.2	3.53	-19.3	-16.1	-32.3
40-44	6.09	5.05	4.07	-17.0	-19.4	-33.1
45-49	6.48	5.67	4.52	-12.5	-20.2	-30.2
Midlands						
15-19	0.18	0.17	0.22	-4.7	28.3	22.3
20-24	1.12	1.09	1.21	-2.7	10.4	7.4
25-29	2.65	2.23	2.17	-15.9	-2.8	-18.2
30-34	4.25	3.21	3.01	-24.5	-6.4	-29.3
35-39	5.58	4.36	3.76	-21.8	-13.8	-32.6
40-44	6.55	5.4	4.13	-17.7	-23.5	-37.0
45-49	7.06	6.02	4.63	-14.7	-23.1	-34.4
Masvingo						
15-19	0.15	0.13	0.2	-8.8	48.0	35.0
20-24	1.08	1.03	1.21	-4.6	16.8	11.5
25-29	2.71	2.17	2.15	-20.1	-0.9	-20.8
30-34	4.41	3.22	3.01	-27.0	-6.4	-31.7
35-39	5.75	4.48	3.71	-22.1	-17.2	-35.5
40-44	6.79	5.58	4.13	-17.9	-25.9	-39.1
45-49	7.27	6.21	4.67	-14.7	-24.8	-35.8
Harare						
15-19	0.14	0.13	0.13	-3.8	-5.8	-9.3
20-24	0.87	0.8	0.81	-7.7	0.6	-7.2
25-29	2.07	1.65	1.62	-20.3	-1.9	-21.9
30-34	3.31	2.41	2.32	-27.2	-3.5	-29.8
35-39	4.32	3.22	2.79	-25.4	-13.4	-35.4
40-44	4.96	3.98	3.04	-19.8	-23.5	-38.7
45-49	5.29	4.5	3.41	-14.9	-24.2	-35.5

Source: CSO 1992 and 2002 censuses; ZIMSTAT 2012 census

A negative relationship between education and fertility holds across all age groups, and across all the censuses. Mean parities systematically decline with completed level of education (Table 9). In 1992, mean parities for women aged 45-49 without education was about 1.9 times higher than that for women with tertiary education; 7.2 mean CEB compared to about 3.9 CEB. In 2002 mean parities for these educational groups was about 5.9 compared to 3.6 respectively; comparable parities for 2012 were 5.2 and 2.9 CEB respectively, thus the uneducated had fertility which was about 1.8 times that of women with tertiary education in 2012. While fertility declined across all educational groups, the decline was more for those with no education than for those with tertiary education. For instance, fertility for women aged 40-44 and 45-49 with no education declined by -33% and -28% respectively. Comparable declines for women with tertiary education were -29% and 27%, respectively.

It is interesting to note fertility decline was more during the 1992-2002 inter-census period compared to the 2002-2012 inter-census period for all the educational groups. The largest decline during the 1992-2002 inter-census period was among young women, those aged 15-24. The mean number of CEB declined by about -74% and -40% for women aged 15-19 and 20-24 years old, respectively, with no education.

While fertility decline for women aged 44-49 accelerated over the entire 20-year inter-census period; there was a reversal among some age groups, particularly the young women, across all educational groups. Fertility increased by about 100% 25% and 13% for the 15-19, 20-24 and 25-29 year age groups among women with no education. Comparable changes were 30%, 13% and 2% respectively, for women with primary education; they were 32%, 17% and 4%, respectively, for women with secondary education. It was 17% for women aged 15-19 for women with tertiary education. Thus, the fertility increase was highest among the uneducated women.

Table 9: Mean Parities by Completed Level of Education, Zimbabwe, 2012 Census

Age of Mother	1992	2002	2012	% Change 1992-2002	% Change 2002-2012	%Change 1992-2012
No Education						
15-19	0.43	0.11	0.22	-74.0	99.9	-48.1
20-24	1.85	1.11	1.39	-40.1	25.2	-25.0
25-29	3.32	2.04	2.3	-38.5	12.9	-30.6
30-34	4.58	3.69	3.07	-19.5	-16.7	-32.9
35-39	5.78	4.83	3.97	-16.4	-17.8	-31.3
40-44	6.74	5.27	4.49	-21.8	-14.7	-33.3
45-49	7.18	5.91	5.21	-17.6	-12.0	-27.5
Primary						
15-19	0.25	0.26	0.34	5.7	30.1	37.4
20-24	1.49	1.45	1.63	-3.2	12.7	9.0
25-29	2.94	2.6	2.65	-11.6	1.9	-10.0
30-34	4.18	3.68	3.52	-11.8	-4.4	-15.7
35-39	5.41	4.63	4.23	-14.5	-8.7	-21.9
40-44	6.37	5.28	4.7	-17.1	-11.0	-26.2
45-49	6.83	5.84	4.93	-14.5	-15.6	-27.9
Secondary						
15-19	0.13	0.13	0.17	1.3	32.0	33.7
20-24	0.84	0.89	1.04	5.8	17.2	24.0
25-29	1.83	1.88	1.96	2.6	4.3	7.1
30-34	3.06	2.72	2.71	-11.3	-0.3	-11.5
35-39	4.11	3.38	3.29	-17.6	-2.8	-19.9
40-44	4.72	4.07	3.59	-13.8	-11.8	-24.0
45-49	4.66	4.52	3.76	-3.1	-16.9	-19.4
Tertiary						
15-19	0.17	0.14	0.16	-15.3	16.6	-1.2
20-24	0.55	0.51	0.44	-6.7	-15.2	-20.9
25-29	1.39	1.21	1.06	-13.2	-12.2	-23.8
30-34	2.48	1.98	1.85	-20.1	-6.7	-25.5
35-39	3.25	2.67	2.4	-17.7	-10.3	-26.1
40-44	3.76	3.24	2.66	-14.0	-17.7	-29.3
45-49	3.93	3.58	2.89	-8.8	-19.5	-26.5

Source: CSO 1992 and 2002 censuses; ZIMSTAT 2012 census

3.2.2 Current Fertility

Data on current fertility may be affected by misreporting which must be corrected for when estimating fertility. As noted in the chapter on methodology, three indirect estimation techniques which use the P/F ratios for the adjustment of current fertility: the Brass PF Ratio method, the P/F method which uses the Brass P/F ratios modified by Arriaga and is implemented in MortPak, and the Gompertz Relational Curve were used for the indirect estimation of current fertility from the 1992, 2002 and 2012 censuses. These methods assume that fertility for younger women are more accurately reported compared to those of older women, hence, the average fertility of women aged 20-24 and 25-29 were used as correction factors for the adjustment of the age specific fertility rates.

3.2.2.2 Findings

3.2.2.2.1 Fertility Levels

The adjusted age specific fertility rates were used to estimate the respective total fertility rates. All the three indirect estimation methods yielded fairly similar results to those from the direct estimations (Table 10). Results show the observed estimates and the results from the three indirect methods. Both the Gompertz and Mortpak estimations are fairly comparable to the observed TFR of 4.71, 3.60 and 3.75 for 1992, 2002 and 2012, respectively. However, the Brass P/F method produces higher estimates, 5.4, 4.15 and 4.32, respectively.

A comparison of the TFR estimates from the ZDHS estimates show that the Brass PF method yields a TFR for 1992 which is about a child higher than the ZDHS estimate of 1994 which is not plausible. Both the Gompertz and Mortpak estimates are less than half a child near the ZDHS estimate of 1994. In 2012, all the three methods yield estimates which are less than a child within the ZDHS estimate of 2010-11. The declining trend is evident in the estimates from the three methods. Thus, it can be concluded that the TFR for 2012 is around 4. Given the assumption of changing fertility by the Mortpak Method, the Mortpak estimates are thus used to assess current fertility differentials.

Table 10: Observed and Adjusted Fertility Rates by Year

	1992 Census				2002 Census				2012 Census			
Age Group	Observed	Adjusted Gompertz	Adjusted PF Ratio	Adjusted Arriaga	Observed	Adjusted Gompertz	Adjusted PF Ratio	Adjusted Arriaga	Observed	Adjusted Gompertz	Adjusted PF Ratio	Adjusted Arriaga
15-19	0.08	0.11	0.11	0.12	0.07	0.1	0.1	0.09	0.07	0.08	0.1	0.09
20-24	0.22	0.17	0.26	0.23	0.18	0.15	0.21	0.19	0.19	0.17	0.22	0.19
25-29	0.21	0.19	0.24	0.2	0.17	0.15	0.19	0.16	0.18	0.18	0.21	0.18
30-34	0.18	0.18	0.2	0.17	0.13	0.13	0.15	0.13	0.15	0.15	0.17	0.15
35-39	0.14	0.16	0.16	0.14	0.1	0.11	0.11	0.09	0.11	0.11	0.12	0.1
40-44	0.08	0.1	0.09	0.07	0.05	0.06	0.05	0.05	0.04	0.05	0.04	0.04
45-49	0.03	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.01
TFR	**4.71**	**4.67**	**5.43**	**4.72**	**3.6**	**3.62**	**4.15**	**3.6**	**3.75**	**3.79**	**4.32**	**3.75**
ZDHS	1988		1994		1999			2005	2010			
TFR	**5.4**		**4.3**		**4**			**3.8**	**4.1**			

Source: P/F- Brass P/F method; Arriaga modified P/F method, and Gompertz Relational Curve.

3.2.2.2.2 Current Fertility Differentials

A positive relationship exists between marriage and fertility, and the gap between those currently in marriage and those who have never married increased over the 20-year inter census period (Table 11). Marital fertility is consistently the highest, with a TFR of 6.7 in 1992, and 5,5 in both 2002 and 2012. Fertility of never married women is consistently the lowest, with a TFR of 1.7 in 1992; 1.1 and 1.0 in 2002 and 2012, respectively. Thus, fertility for currently married women was 3.9, 4.9 and 5.6 times that of never married women in 1992,2002 and 2012, respectively. Divorced women had the second highest TFR which was 4.1 in 1992; it was 3.2in both 2002 and 2012, respectively. Widows' fertility is next to that of never married women.

A negative relationship between fertility and education is observed; the gap between those with no education and those with at least secondary school has reduced slightly. (Note that data for 1992 census, which is in the data base, lumps secondary and tertiary education together). TFR for women with no education was 1.5 times that of women with at least secondary school, in both 1992 and 2002, it was .9 times higher in 2012.

A negative relationship between current fertility and urbanization exists, and the gap between the two areas is closing slightly. Rural fertility was 1.5 times that of urban areas in both 1992 and 2002; it was 1.4 times higher in 2012.

TFR declined by about -21% during the 20-year inter census period. However, most of the decline was during the 1992-2002 period when TFR declined by about -24%. TFR slightly increased by about 4% during the 2002-2012 period.

TFR declined across marital, educational and residential groups between 1992 and 2012. The largest decline in TFR during the 20-year inter census period was among the never married women, -43%. On the other hand, women with no education experienced the largest decline, -41% compared to women with primary, -13% and at least secondary school education, -4%. Consistently, rural women experienced a larger fertility decline, -21%, compared to their urban counterparts, -15%.

As noted above, fertility declined across all marital, educational and residential groups between 1992 and 2002. The largest decline was among never married women, -35%. Again, the decline was negatively related to education and urbanization.

During the 2002 and 2012, while TFR for currently married women and those divorced marginally increased, it declined for women who had never married and those who were widowed. Among educational groups, the decline in TFR was largest among women with no education, -20% compared to an increase of 4% and 3% for women with primary and at least secondary education, respectively. Although fertility increased in both rural and urban areas, the increase was more in urban areas, 10% compared to 1% in rural areas. Thus, the gap between educational and residential groups reduced slightly between the inter-census periods.

Table 11: Adjusted (Arriaga Method) Total Fertility Rate by Background Characteristics, Zimbabwe, 2012 Census

Background Characteristics	1992	2002	2012	% Change 1992-2002	% Change 2002-2012	%Change 1992-2012
Marital Status						
Never married	1.73	1.12	0.98	-35.4	-11.8	-43.0
Married	6.71	5.53	5.53	-17.7	0.0	-17.7
Dirvoced	4.09	3.21	3.22	-21.5	0.4	-21.2
Widowed	3.75	2.71	2.48	-27.8	-8.4	-33.8
Education						
No Education	5.52	3.4	3.3	-26.8	-19.5	-41.0
Primary	5.01	4.2	4.3	-16.7	4.1	-13.3
Secondary+	3.68	3.2	3.6	-15.7	14.0	-3.9
Place of residence						
Rural	5.32	4.16	4.21	-21.8	1.4	-2071.0
Urban	3.6	2.78	3.05	-22.6	9.6	-15.2
Total	**4.72**	**3.6**	**3.73**	**-23.7**	**4.2**	**-21.0**

There are differences in TFR between and within provinces in 2012. Consistent with earlier findings, Harare and Bulawayo, both of which are urban provinces, have the lowest TFR of 3.1 and 2.7, respectively (Tables A9-A18). Among rural provinces, TFR ranges between 3.6 in Matebeleleland South to 4.3 in Mashonaland Central.

In all the provinces, urban districts have lower fertility than rural districts. For instance, in Manicaland, TFR ranges from 3.2 in Mutare to 4.8 in Buhera, a district with the highest fertility in Zimbabwe, together with Gokwe North in Midlands. In Mashonaland East, TFR ranges from 3.0 in Ruwa to 4.5 in Mudzi, while in Mashonaland Central TFR ranges from 2.8 in Mvurwi to 4.7 in Muzarabani. In Mashonaland West, TFR ranged from 3.2 in Kariba to 4.6 in Hurungwe, while it ranged from 2.7 in Victoria to 4.2 in Nkayi in MatebelelandNorth. In Matebeleland South, TFR ranged from 2.9 in Beitbridge urban to 4.1 in Beitbridge rural. And in Midlands TFR ranged from 2.7 in Gweru to 4.8 in Gokwe North.Finally in Masvingo, TFR ranged from 2.8 in Masvingourban to 4.4 in Mwenezi.

4. Discussions, Conclusions and Recommendations

4.1. Nuptiality

Marriage has generally increased; it is universal, with approximately 98% of both males and females marrying at some point in their lives. The proportion married increased most between 2002 and 2012; the increase was more for males.

Women marry earlier than their male counterparts. In Zimbabwe, the determinants of maturity which is a pre-requisite for marriage, are different for males and females. Maturity for males is proxied by their financial capacity to pay lobola, their acquisitions which include a bed and other essential household goods (Mhloyi, 1991). On the other hand, maturity for women is proxied by the attainment of menarche, and their ability to take care of household chores such as cooking, cleaning and laundry. It was also noted that girls who are educated, and have a profession must work for at least two years before marriage within which period they can help their natal families; during marriage, the husband and his next of kin are the beneficiaries of married women's income (ibid). The determinants for males can be achieved latter than those of females, hence the latter age at marriage for males.

The peak level of current marriage for females, 80%, at exact age 29, is lower than that for males whose peak is 90% at ages 40-44 years. The lower peak level of marriage is explained by the higher levels of widowhood and divorce among women than males. Women were about 2.6 times more likely to be divorced than males in both 1992 and 2012, they were about 2.8 times more likely to be divorced in 2002. Women are also more likely to be widowed than males. In 1992, women were about 8 times more likely to be widowed than males, 6 and 7 times more likely to be widowed than males in 2002 and 2012, respectively. Implicit in these rates is the fact that men tend to remarry soon after marriage dissolution, be it as a result of death of a spouse or divorce. Given that the proportion which is divorced and widowed increases with age unabatedly among women, this suggests that men who become single do not necessarily marry their age mates, but younger women some of who have never married. In turn, these implied high levels of re-marriage have serious implied negative implications on the spread of HIV.

This marital pattern is consistent with social expectations regarding marriage in Zimbabwe. Culturally, it is believed that men cannot manage their lives effectively in a single state to the extent that they are expected to re-marry after divorce or death of a spouse. On the other hand, women are expected to remain in a single state once divorced or widowed. This expectation is based on the understanding that once divorced or widowed, women must remain in a single state so that they can raise their children without the interference of a step-father. After the death of a husband, remaining in a single state by women is an expected sign of deep bereavement which typifies femininity. Generally, women are not expected to have sexual desire especially if the husband dies when a woman is near the end of her reproductive carrier; women are neither expected to have many children in such single state. Generally, marriage and not singlehood, is associated with reproduction. The fertility expectations were substantiated with results from analyses of fertility differentials.

Worth noting is the increase is widowhood by about 81%, 51% for females and 11% for males during the 20-year inter census period. However, most of the increase was during the 1992-2002inter census period, a time when the HIV and AIDS pandemic was reigning havoc in Zimbabwe.

There is no clear nuptiality pattern by district; however, one district is distinct among the rest, and this is Bulilimammangwe. Bulilimamangwe experienced the highest level of being never married among both males and females in 1992; and consistently the lowest level of marriage in both 1992 and 2012. Bulilimamangwe also has the highest level of widowhood for both males and females in 1992 and 2002.

4.2. Fertility

4.2.1 Quality of Data

The quality of both lifetime fertility and current fertility data were assessed. The assessment showed that data from all the three censuses do not suggest any significant flaws in reported parities. The implausibility of reported parities is insignificant in all the three data sets to the extent that corrections made did not have any significant impact on reported parity data. Over reporting was less than 1% across all censuses. Childlessness decrease with age, while

parities increase with age as expected. However, the increasing of childlessness during the 20-year census period compared with the declining levels during the overlapping 23-year inter survey period suggest that censuses over estimate childlessness. Such over reporting of childlessness might be a result of memory lapse or the reluctance to report on dead children. In addition, reporting of fertility data by proxy respondents may leave out children who dead.

Further, a plot of TFRs and parities for women aged 45-49 years was made. Given declining fertility in Zimbabwe, mean parities must be higher than TFR given that women aged 45-49 in 1992 started giving birth around 1955-1959, while those who were 45-49 in 2012 started giving birth around 1975-79, a period when fertility was natural with family planning being unheard of among the majority African population. It is thus expected that mean parities must be systematically higher than the TFRs. The plot showed that mean parities were systematically higher than the TFRs; albeit displaying the same declining trend. The difference between mean parities and TFRs for both 1992 and 2002 is about two children; it is about half a child in 2012. It can thus be concluded that reporting on parity data is good.

Reporting on current fertility appears good with possible under reporting of current births. To correct for such under reporting, indirect estimation techniques were used: the Brass P/F method, the Gompertz Relational Curve and the P/F method which uses the Brass P/F ratios modified by Arriaga.Estimation from all the three methods yield fairly comparable estimates with the Brass Method showing slightly higher estimates for the 1992 data set, the estimates compare closely on the 2012 data. The Mortpak estimates were thus used largely because of its assumption of changing fertility. It should be noted that all the estimates are so similar; they only validate the good quality of data and the consequent estimates from direct estimation.

4.2.2 Fertility levels, trends and differentials

Lifetime fertility for women aged 45-49 declined over the 20-year period however; fertility decline for young women reduced; it even reversed among some groups. Mean parity for women aged 45-49 declined from 6.7 in 1992 to 3.8 in 2012.

As posited earlier, a positive relationship between fertility and marriage exists. Fertility for currently married women was about 2.3 times higher than that of never married women in both 1992 and 2002; it was 2.5 times higher in 2012. Fertility for widowed women was second to that of those in current marriage, followed by fertility of divorced women.

A positive relationship between urbanization and fertility also holds. Urban women consistently have lower parities than rural women across all the age groups, and across all censuses. Rural women aged 45-49 had fertility which was about 1.3 times that of their urban counterparts in both 1992 and 2002; it was 1.4 times higher in 2012. Fertility declined more in urban areas, -37%, compared to rural areas, -32%. However, most of the decline was between 1992 and 2002; there was some reversal between 2002 and 2012.

A negative relationship between education and fertility holds across all age groups, and across all the censuses. In 1992, mean parities for women aged 45-49 without education was about 1.9 times higher than that for women with tertiary education; it was about 1.8 times in 2012. Thus, fertility declined across all educational groups; however, the decline was more for those with no education than for those with higher education.

There are significant parity differentials among provinces. Harare and Bulawayo provinces, both of which are urban provinces, have consistently lower fertility than the eight rural provinces, with Bulawayo experiencing slightly lower fertility than Harare. In 1992, fertility for women aged 45-49 was highest in Mashonaland Central. Matabeleland North and Matebleand South had the lowest fertility among the rural provinces.

The pace of decline varied between provinces during the 20-year inter-census period. Fertility decline was slowest, -32% and -33% in Matabeleland North and South, and fastest in Harare, Bulawayo, Mashonaland West and Masvingo, -39%. Although fertility decline started from a lower level in Matabeleland North province, the pace of the decline was lower in these two

provinces compared to all others to the extent that Matabeleland North province had the highest fertility in 2012.

4.2.2.1Current Fertility

It is safe to conclude that TFR for Zimbabwe was around 4 in 2012; having declined from about 4.7 in 1992. A positive relationship exists between marriage and current fertility, and the gap between those currently in marriage and those who have never married increased over the 20-year inter census period. Marital fertility is consistently the highest, with a TFR 3.8, 4.9 and 5.6 times that of never married women in 1992, 2002 and 2012, respectively.

A negative relationship between fertility and education is observed; the gap between those with no education and those with at least secondary school has reduced slightly. TFR for women with no education was 1.5 times that of women with at least secondary school education in both 1992 and 2002, it was .9 times higher in 2012.

A positive relationship between current fertility and urbanization also exists, and the gap between the two areas is closing slightly. Rural fertility was 1.5 times that of urban areas in both 1992 and 2002; it was 1.4 times higher in 2012.

Current fertilitydeclined by about 21% during the 20-year inter census period.However, this decline was largely between 1992 and 2002; a 4% increase was recorded between 2002 and 2012. During the inter census period the largest decline among marital groups was among the never married, -43%. Among educational groups, the largest decline was among women with no education, -41%. And rural areas experienced a larger fertility decline -21% compared to urban areas, 15%.

During the 1992-2002 inter census period where most of the decline occurred, the largest decline among marital groups of -36%, was among women who never married. Marital fertility declined the least, -18%. And fertility declined the most among women without education, -27%; the decline was -17% and -16% for women with primary and at least

secondary school, respectively. However, fertility decline was more among urban women, -23% compared to rural women, 22%.

During the 2002 and 2012 inter census period, fertility decline was only among women who never married, -12% and widowed, -8%. There was a slight increase in fertility among the married and widowed women. And fertility decline was experienced among women with no education, -19%, it increased among women with primary school, 4% and 14% among women with at least secondary edcuation. While fertility increased in both rural and urban areas, the increase in urban areas was seven times greater than that of rural areas, 10% and 1%, respectively.

4.3. Conclusion

Nuptiality changed over the 20-year inter-census period. Of particular note is the increase in widowhood especially between 1992 and 2002. This is consistent with the high mortality from the HIV and AIDS epidemic. Given the unabated increase of widowhood and divorce with age among women, and the consistent low levels of such for men, it is clear that men tend to remarry soon after a marital dissolution. And such men marry younger women. This marital pattern has serious implications on the spread of HIV. Also of note is the fact that proportions married increased among young men especially between 2002 and 2012. It is expected that these young men were marrying girls of their age, indeed those who were slightly younger than them as the culturally acceptable norm.

Fertility declined between the 20-year inter-census period, from a TFR of about 4.7 in 1992 to about 4 in 2012. The decline in life time fertility among older women accelerated over the 20 year period while that of young women declined largely during the 1992-2002 inter census period but receded during the 2002-2012 period. The increase in fertility among young women is consistent with the increase in marriage among young men during the same period. As noted above, the young men are expected to have been marrying slightly younger women than their own ages as is culturally expected. Thus, parallel changes in increased marriage among males and increased fertility among young women are expected given that the Zimbabwean culture equates marriage with reproduction. It is expected that once married, a woman must conceive immediately and bear a child or two before any contraceptive use. Or

if an adolescent gets pregnant, she is expected to marry. Thus, consistently, married women have higher fertility than all the other marital groups.

Fertility decline between the inter census period was more among women with no education compared to those with higher education; it was also more among rural women compared to urban women. The increase in fertility between 2002 and 2012 was more among the more educated and the urban residents. Yet fertility is generally lower among educated women compared to those with no education; it is lower among urban women compared to their rural counterparts. One can thus posit that the fertility decline was underlined not only by development; but also by lack of development. Development underlies fertility decline given that the educated and urbanized women are further ahead in the fertility transition with their fertility lower than that of their uneducated and rural counterparts. However, the increase in fertility between 2002 and 2012 was higher among the educated and urban women compared to the uneducated and rural women, respectively, perhaps reflecting the delayed fertility during the 2007-2010economic crunch. Given the stabilization of the economy with the dollarization of the economy, especially from 2010 to date, fertility then picked up, more for the modernized women who understand, and are more affected by economic swings. Meanwhile, the less modernized women have been reducing their fertility as family planning became more acceptable, accessible and affordable starting from the establishment of the Zimbabwe national Family Planning Council after independence. And because of lack of development, both the less modernized and the modernized women reduced their fertility to levels which could be sustained in the ailing economy. The increase between 2002 and 2012 can be considered as temporary, simply a boom which is short term. Fertility is expected to stall at around 3 to 4 children at least for the next ten to twenty years given the socio-economic context within which it is occurring.

Fertility in Zimbabwe still occurs too early and late in the lives of mothers granted the high fertility among adolescent women, and significant fertility beyond age thirty five. This partly contributes to the high maternal and infant deaths.

4.4. Recommendations

Given the implied high levels of remarriages among men, there is urgent need to educate the public about the need for HIV testing before consummation of any marriage, indeed before the first sexual act with a new partner whose sero-status is unknown. Given, that most HIV positive Zimbabweans are on ARVs, people must realize that one may not differentiate between HIV positive and negative individuals by mere looks.

The Zimbabwean fertility transition is consistent with transitions in other countries, especially the fact that once fertility decline has started, it continues on a downward trend, albeit with temporary busts and booms. If Zimbabwe can draw a lesson from the developed nations, it is necessary to then start designing programmes which will halt the fertility decline in time to sustain an optimum population size in the future. Meanwhile, it is important to address the increasing adolescent fertility. Development might once again be the important complementary pill. If adolescents are left unemployed, and without adequate access to family planning information and services, adolescent fertility might remain high for some time with consequent negative effects on both the mothers and their infants and children. It is also important to design programmes which will encourage contraceptive use intended to delay the first birth within marriage. Such a programme would emphasize the ability to raise quality children as a precondition for reproduction, and not just marriage.

Given the good quality of data from the respective censuses, such quality can be enhanced by reducing the collection of fertility data from proxy respondents. In addition, it is important for ZIMSTAT to make detailed notes on how the data are cleaned; such notes can be referred to during analyses at variable times.

Given the variability of sexual and reproductive practices across ethnic groups, it is crucial for ZIMSTAT to capture data by ethnicity. This will enhance the designing of ethnic specific programmes.

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6. Appendices

Table A1: Marital Status by Age and Sex, Zimbabwe, 1992 Census

	Never Married		Married		Divorced		Widowed	
Age	Females	Males	Females	Males	Females	Males	Females	Males
15	96.6	99.6	3.2	0.4	0.2	0.0	0.0	0.0
16	91.3	99.4	8.1	0.6	0.6	0.1	0.0	0.0
17	81.9	98.9	16.7	1.0	1.3	0.1	0.1	0.0
18	68.5	97.5	29.2	2.3	2.3	0.1	0.1	0.0
19	56.9	95.3	39.8	4.5	3.2	0.2	0.2	0.0
20	44.8	90.8	50.4	8.8	4.4	0.4	0.3	0.0
21	38.6	85.3	55.7	14.1	5.3	0.6	0.4	0.0
22	30.1	77.1	63.3	22.0	6.1	0.8	0.5	0.1
23	25.3	66.8	66.7	31.9	7.3	1.3	0.7	0.1
24	20.6	57.3	70.6	41.1	8.0	1.5	0.8	0.1
25	17.0	48.2	73.4	49.9	8.5	1.8	1.1	0.1
26	14.0	40.9	75.4	56.9	9.4	2.1	1.2	0.2
27	11.4	34.0	77.2	63.2	10.0	2.5	1.4	0.2
28	9.0	28.9	79.3	67.9	10.1	2.9	1.6	0.3
29	7.6	23.0	80.6	73.4	10.0	3.4	1.8	0.3
30-34	5.4	12.8	81.6	82.9	10.2	3.9	2.7	0.4
35-39	3.3	5.8	82.3	89.6	9.8	4.0	4.6	0.6
40-44	2.3	3.8	80.3	91.3	9.4	4.1	8.0	0.9
45-49'	1.9	3.2	76.9	91.3	9.2	4.3	12.0	1.3
50-54	1.7	2.7	70.8	91.0	8.3	4.4	19.2	1.8
55-59	1.6	2.5	64.3	90.5	8.1	4.5	26.0	2.5
60+	2.0	2.7	39.2	85.1	5.6	5.2	53.3	7.1
Total	**25.7**	**42.3**	**58.8**	**54.1**	**6.8**	**2.6**	**8.6**	**1.1**

Table A2: Marital Status by Age and Sex, Zimbabwe, 2002 Census

	Never Married		Married		Divorced		Widowed	
Age	Females	Males	Females	Males	Females	Males	Females	Males
15	97.3	99.7	2.5	0.2	0.2	0.0	0.0	0.0
16	90.9	99.2	8.5	0.7	0.5	0.1	0.1	0.0
17	81.2	98.8	17.5	1.2	1.1	0.1	0.1	0.0
18	68.3	97.6	29.5	2.2	2.1	0.1	0.2	0.0
19	57.3	95.3	39.4	4.4	3.1	0.2	0.3	0.1
20	45.0	90.6	50.4	8.9	4.1	0.4	0.5	0.1
21	38.4	84.2	55.8	15.1	5.0	0.7	0.8	0.1
22	29.1	74.6	63.9	24.2	5.9	1.1	1.1	0.1
23	24.2	63.4	67.3	35.1	6.9	1.4	1.6	0.1
24	20.1	53.6	70.7	44.4	7.3	1.9	2.0	0.2
25	16.5	44.3	73.0	53.3	7.8	2.2	2.6	0.3
26	14.0	35.6	74.9	61.7	8.0	2.3	3.2	0.4
27	12.0	28.2	75.7	68.6	8.5	2.7	3.9	0.5
28	10.7	23.2	76.3	73.3	8.4	2.9	4.6	0.6
29	9.6	18.5	76.0	77.9	8.9	2.9	5.5	0.7
30-34	7.5	11.5	75.5	84.0	9.3	3.3	7.8	1.2
35-39	4.6	6.5	74.9	87.8	9.2	3.7	11.2	2.1
40-44	3.1	4.2	73.2	89.5	8.8	3.7	14.9	2.6
45-49'	2.5	2.9	70.6	90.7	8.3	3.4	18.7	3.1
50-54	2.0	2.4	66.1	90.5	7.6	3.5	24.2	3.6
55-59	1.9	2.2	60.7	90.3	7.1	3.4	30.3	4.1
60+	2.6	3.3	39.0	84.3	4.9	3.7	53.5	8.7
Total	**26.1**	**42.0**	**56.1**	**54.1**	**6.2**	**2.2**	**11.6**	**1.8**

Table A3: Marital Status by Province, District and Sex, Zimbabwe, 1992 Census

	Never married		Married		Divorced		Widowed	
District	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**
Bulawayo								
Bulawayo	40	36	56	51	2	8	1	5
Total	**40**	**36**	**56**	**51**	**2**	**8**	**1**	**5**
Manicaland								
Buhera	51	24	47	60	1	5	1	11
Chimanimani	49	23	48	60	2	7	1	10
Chipinge	46	20	51	64	1	5	1	11
Makoni	46	24	49	59	3	6	2	11
Mutare Rural	49	23	48	62	2	5	1	10
Mutare Urban	39	31	59	55	2	9	1	5
Mutasa	46	23	51	60	2	5	1	11
Nyanga	42	22	55	60	1	5	1	12
Rusape	37	29	60	55	2	11	1	5
Total	**46**	**24**	**51**	**61**	**2**	**6**	**1**	**10**
Mashonaland Central								
Bindura	36	18	59	68	3	7	1	8
Bindura Urban	39	29	59	59	2	8	1	4
Centenary	35	18	61	69	3	6	1	7
Guruve	40	20	57	64	2	6	1	10
Mazowe	37	20	59	66	3	7	1	8
Mt Darwin	42	20	55	65	2	5	1	10
Rushinga	40	18	57	66	2	6	1	11
Shamva	40	20	56	66	3	6	1	8
Total	**39**	**20**	**58**	**66**	**3**	**6**	**1**	**9**
Mashonaland East								
Chikomba	49	25	47	55	3	7	2	13
Goromonzi	41	23	54	61	4	8	1	8
Hwedza	47	24	49	59	3	7	1	11
Marondera	41	22	54	62	4	7	1	9
Marondera Urban	38	29	59	57	2	9	1	5
Mudzi	44	19	53	62	2	6	1	12
Murehwa	47	22	48	60	4	7	2	11
Mutoko	46	23	50	59	2	6	1	12
Ruwa Local Board	42	31	57	64	1	4	1	0
Seke	40	21	55	64	4	7	1	8
Uzumba Maramba Pfungwe	45	20	52	63	2	6	1	11
Total	**44**	**23**	**52**	**60**	**3**	**7**	**1**	**10**

Table A3: Marital Status by Province, District and Sex, Zimbabwe, 1992 Census *(Cont.)*

	Never married		Married		Divorced		Widowed	
District	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**
Mashonaland West								
Chegutu	40	22	54	61	4	8	2	9
Chegutu Urban	38	24	58	60	2	10	1	5
Chinhoyi	40	28	57	58	2	8	1	5
Chirundu	37	18	61	70	2	10	0	2
Hurungwe	41	20	55	65	3	6	1	9
Kadoma	41	22	55	62	3	7	1	8
Kadoma Urban	39	27	58	57	2	10	1	5
Kariba	36	16	61	71	2	5	1	8
Kariba Urban	39	23	58	66	3	8	1	4
Makonde	36	20	59	68	3	6	1	6
Norton	40	28	57	58	2	9	1	5
Zvimba	36	20	59	66	4	7	1	7
Total	**39**	**22**	**57**	**64**	**3**	**7**	**1**	**8**
Matabeleland North								
Binga	0	14	0	71	0	5	0	10
Bubi	44	27	51	59	4	5	1	9
Hwange	41	22	52	59	5	8	1	11
Hwange Urban	38	32	60	59	2	6	1	3
Lupane	48	26	47	58	3	5	1	12
Nkayi	48	25	47	59	3	4	2	12
Tsholotsho	50	26	44	55	4	5	2	14
Umguza	39	27	55	59	4	6	1	8
Victoria Falls	42	35	55	54	2	8	1	3
Total	44	25	52	60	3	5	1	10
Matabeleland South								
Beitbridge	40	24	54	54	4	10	2	11
Bulilimamangwe	51	29	43	50	4	6	2	15
Gwanda	46	29	49	52	4	7	1	11
Gwanda Urban	38	40	59	47	2	10	1	4
Insiza	46	29	50	56	3	5	1	10
Matobo	49	30	45	51	4	6	2	13
Umzingwane	44	30	51	55	4	5	1	10
Total	**46**	**29**	**48**	**52**	**4**	**7**	**2**	**12**
Midlands								
Chirumanzu	45	27	51	55	3	6	1	12
Gokwe	46	23	52	63	2	5	1	9
Gweru	47	28	49	55	3	7	1	10
Gweru Urban	38	32	60	55	2	9	1	4
Kwekwe	46	26	50	59	3	6	1	10
Kwekwe Urban	40	30	58	55	2	10	1	5
Mberengwa	47	26	48	55	3	8	1	12
Redcliffe	38	31	60	56	2	9	1	3
Shurugwi	47	26	49	56	3	7	1	12
Shurugwi Urban	38	28	58	49	3	15	1	8
Zvishavane	44	28	52	56	2	7	1	10
Zvishavane Urban	40	28	57	47	3	18	1	6
Total	**44**	**26**	**52**	**58**	**2**	**7**	**1**	**9**

Table A3: Marital Status by Province, District and Sex, Zimbabwe, 1992 Census *(Cont.)*

	Never married		Married		Divorced		Widowed	
District	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**
Masvingo								
Bikita	50	25	47	58	2	5	1	11
Chiredzi	37	21	60	61	2	8	1	10
Chivi	51	27	46	53	3	7	1	13
Gutu	50	27	47	56	2	6	1	12
Masvingo	45	26	51	55	2	7	1	11
Masvingo Urban	37	34	61	52	2	10	1	4
Mwenezi	43	24	53	60	2	5	1	11
Zaka	48	24	49	58	2	6	1	12
Total	**45**	**25**	**51**	**57**	**2**	**7**	**1**	**11**
Harare								
Chitungwiza	39	30	58	57	2	8	1	4
Harare Rural	34	23	62	67	3	7	1	3
Harare Urban	38	30	59	57	2	9	1	5
Total	**38**	**30**	**59**	**57**	**2**	**8**	**1**	**5**

Table A4: Marital Status by Province, District and Sex, Zimbabwe, 2002 Census

	Never Married		Married		Divorced		Widowed	
Province/ District	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
Bulawayo								
Bulawayo	40	44	46	52	6	2	8	2
Manicaland								
Buhera	22	47	58	50	4	1	15	2
Chimanimani	24	46	57	51	6	2	13	1
Chipinge	23	46	58	51	6	2	13	1
Inyathi Mine	24	33	58	61	9	4	10	2
Makoni	21	44	58	51	6	2	16	2
Mutare	31	41	54	56	7	2	8	1
Mutare Rural	21	46	58	50	6	2	14	2
Mutasa	23	45	58	51	5	2	14	2
Nyanga	38	38	49	60	7	1	6	1
Nyanga Rural	23	43	57	53	6	1	15	2
Nyazura	26	39	47	52	15	6	13	3
Penhalonga Mine	28	39	62	59	4	1	6	1
Rusape	29	38	54	58	8	2	9	2
Tsanzaguru Growth	32	42	46	52	8	2	14	3
Mashonaland Central								
Bindura	27	39	58	57	7	2	8	1
Bindura Rural	17	37	65	58	6	3	11	2
Ceaser Mine	17	33	71	62	8	3	5	2
Centenary	17	37	68	60	5	2	9	2
Concession	24	36	58	60	9	2	10	2
Glendale	24	37	60	59	7	2	9	1
Guruve	19	39	63	57	6	2	12	2
Madziwa Mine	19	26	66	67	10	4	6	3
Mazowe Rural	18	36	63	59	7	3	11	2
Mount Darwin	18	40	64	56	5	2	13	2
Mount Darwin Centre	32	41	53	57	8	1	8	1
Mvurwi	23	35	56	60	11	2	10	2
Rushinga	19	40	62	57	6	2	13	1
Shamva	19	41	63	54	6	3	13	2
Shamva Mine	18	37	74	61	5	1	3	1
Shamva Town	24	39	57	57	10	2	9	2
Trojan Mine	26	36	69	62	2	1	2	1

Table A4: Marital Status by Province, District and Sex, Zimbabwe, 2002 Census (Cont.)

Province/ District	Never Married		Married		Divorced		Widowed	
	Females	Males	Females	Males	Females	Males	Females	Males
Mashonaland East								
Acturus Mine	23	38	67	60	4	1	5	1
Chikomba	22	46	54	49	6	2	18	2
Chivhu Local Board	28	40	51	57	10	2	10	1
Goromonzi	20	38	60	57	8	3	12	2
Hwedza	21	45	58	50	6	3	16	2
Marondera	31	39	53	57	8	2	8	2
Marondera Rural	19	39	61	56	8	3	13	2
Mudzi	20	44	58	53	6	2	16	2
Murehwa	19	43	58	51	7	3	15	3
Murehwa Growth Point	26	34	58	64	7	1	9	1
Mutoko	21	44	57	51	5	2	16	2
Mutoko Growth Point	28	34	56	63	8	2	7	1
Ruwa Local Board	34	39	56	58	5	2	5	1
Seke	19	38	62	56	7	3	12	2
Uzumba Maramba Pfungwe	18	40	62	56	5	2	14	2
Mashonaland West								
Alaska Mine	29	39	57	58	7	2	7	1
Banket	26	39	57	57	8	3	9	2
Brompton Mine	19	38	70	60	5	1	5	1
Chegutu	25	38	58	58	8	2	9	2
Chegutu Rural	20	39	59	55	7	4	14	3
Chinhoyi	31	40	55	56	6	2	8	2
Chirundu	22	31	65	66	9	2	4	1
DalnyChakari Mine	40	45	51	53	5	1	5	1
Hurungwe	20	40	63	55	5	3	12	2
Kadoma	28	40	55	56	8	2	10	2
Kadoma Rural	21	40	61	55	6	3	12	2
Kariba	24	38	62	59	7	2	7	1
Kariba Rural	18	37	65	59	6	2	11	2
Karoi	27	37	58	59	7	2	8	1
Makonde	19	36	67	59	6	3	9	2
Mapinga	19	29	63	60	11	7	8	4
Mhangura Mine	27	40	59	56	7	2	7	2
Mt Hampden	17	32	69	64	7	3	6	2
Muriel Mine	20	34	68	63	8	2	4	1
Norton	28	39	59	58	7	2	7	2
Patchway	23	36	67	59	6	2	4	2
Raffingora	20	35	54	58	13	4	13	3
Sanyati ARDA	36	34	47	63	9	2	8	1
Sheckleton	19	33	63	61	9	4	10	3
Zvimba	18	34	64	61	8	3	10	2

Table A4: Marital Status by Province, District and Sex, Zimbabwe, 2002 Census (Cont.)

	Never Married		Married		Divorced		Widowed	
Province/ District	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
Matabeleland North								
Binga	21	42	61	55	6	2	12	1
Binga Centre	31	31	58	66	6	3	5	1
Bubi	24	42	58	53	6	4	12	2
Cement Siding	35	37	60	60	2	1	3	1
Dete	31	39	47	53	9	5	13	4
Hwange	37	40	51	57	7	2	5	1
Hwange Rural	22	43	55	50	8	4	16	2
Kamativi	31	40	48	54	10	4	10	2
Lupane	25	45	55	49	5	3	15	2
Nkayi	26	45	56	49	4	3	15	2
Tsholotsho	30	52	49	43	5	3	16	2
Umguza	30	46	54	49	6	3	11	2
Victoria Falls	30	38	55	59	9	3	6	1
Matabeleland South								
Beitbridge	35	39	47	58	11	2	7	1
Beitbridge Rural	25	44	51	49	9	4	15	3
Bulilimamangwe North	34	56	44	38	5	3	17	2
Bulilimamangwe South	36	55	43	40	6	3	15	2
CollenBawn	32	38	53	60	7	1	8	1
Filabusi	42	38	47	57	5	3	5	2
Gwanda	44	43	42	53	7	2	7	1
Gwanda Rural	31	48	47	46	6	3	16	3
How Mine	23	37	71	61	4	1	3	1
Insiza	29	46	52	49	5	3	14	2
Matobo	33	50	46	45	6	3	15	2
Plumtree	46	47	41	50	6	2	7	1
Shangani	25	30	72	68	1	2	2	1
Umzingwane	31	46	50	48	6	3	14	3
Vubachikwe	26	33	65	64	4	2	4	1
Midlands								
Athens Mine	24	42	51	54	11	2	14	2
Buchwa Mine	35	39	46	60	10	1	8	0
Chirumhanzu	24	44	53	51	6	2	16	2
Gokwe Centre	28	34	58	64	9	2	6	1
Gokwe North	21	43	64	55	4	1	10	1
Gokwe South	22	44	62	53	4	2	12	1
Gweru	36	42	49	55	6	1	8	1
Gweru Rural	26	45	54	50	6	3	14	2
Kwekwe	31	42	53	55	7	2	9	2
Kwekwe Rural	24	43	57	52	5	2	14	2
Lalapanzi	27	34	60	63	5	2	8	1
Mberengwa	24	46	54	49	7	2	15	2
Redcliff	31	40	55	57	6	2	8	2
Shurugwi	25	46	53	49	6	2	16	2
Shurugwi Town	26	39	59	58	8	2	8	1
Zvishavane	25	46	52	49	7	2	16	2
Zvishavane Town	32	37	52	60	9	2	8	1

Table A4: Marital Status by Province, District and Sex, Zimbabwe, 2002 Census (Cont.)

	Never Married		Married		Divorced		Widowed	
Province/ District	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
Masvingo								
Bikita	25	50	55	47	5	1	15	2
Chiredzi	22	37	61	60	7	1	10	1
Chiredzi Town	34	41	50	57	9	1	7	1
Chivi	26	49	51	47	6	2	17	2
Gutu	25	47	54	49	5	2	16	2
Mashava Mine	27	35	59	62	8	1	7	1
Masvingo	36	41	49	57	7	1	8	1
Masvingo Rural	26	47	52	49	7	2	15	2
Mwenezi	24	42	58	54	5	2	13	2
Renco Mine	29	32	64	66	5	1	2	1
Zaka	25	48	54	48	6	2	16	2
Harare								
Chitungwiza	31	41	54	56	7	2	8	1
Harare Rural	17	32	68	64	7	2	8	2
Harare Urban	25	34	64	62	5	2	6	2
Epworth	32	39	55	57	7	2	7	1

Table A5: Marital Status by Province, District and Sex, Zimbabwe, 2012 Census

	Never Married		Married		Divorced		Widowed	
Province/ District	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
Bulawayo								
Bulawayo	44	37	52	46	3	7	2	10
Manicaland								
Makoni	40	15	55	61	3	6	2	18
Buhera	39	16	57	63	2	4	2	17
Nyanga Rural	37	16	59	61	2	6	2	17
Mutasa	38	17	58	62	2	6	2	16
Chipinge	37	16	59	63	2	6	2	15
Mutare Rural	37	15	58	65	3	6	2	14
Chimanimani	38	16	58	63	2	7	2	14
Rusape	34	25	63	58	2	8	1	10
Mutare	37	27	60	56	2	7	1	9
Chipinge	35	25	62	59	2	8	1	9
Mashonaland Central								
Mudzi	36	13	59	64	2	6	2	18
Rushinga	34	15	62	64	2	6	2	16
Guruve	35	14	60	65	3	6	2	15
Mount Darwin	34	14	62	67	2	5	2	14
Hurungwe	35	14	60	66	3	6	2	14
Shamva	35	14	60	67	3	6	2	13
Mbire	32	13	64	68	2	6	2	13
Bindura Rural	34	13	60	68	3	6	2	13
Mazowe	33	15	62	66	3	6	2	12
Muzarabani	32	13	63	71	2	5	2	11
Mvurwi	34	23	62	60	2	8	2	9
Bindura Urban	35	24	62	60	2	7	1	9
Mashonaland East								
Chikomba	40	18	55	56	3	6	3	20
Hwedza	40	17	55	59	3	6	2	18
Murehwa	39	15	55	61	3	6	3	17
Mutoko	37	15	59	63	2	6	2	16
UMP	34	13	61	66	2	5	2	16
Marondera Rural	35	14	58	63	4	7	2	15
Seke	34	16	60	64	3	7	2	13
MhondoroNgezi	36	16	60	65	3	6	2	12
Goromonzi	34	17	60	64	3	7	2	12
Marondera	36	25	59	56	3	9	2	10
Chitungwiza	37	27	59	57	2	7	1	9
Ruwa Local Board	36	29	62	57	2	7	1	6

Table A5: Marital Status by Province, District and Sex, Zimbabwe, 2012 Census (Cont.)

	Never Married		Married		Divorced		Widowed	
Province/ District	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
Mashonaland West								
Chegutu Rural	35	15	58	63	4	7	3	15
Kariba Rural	34	15	63	67	2	6	1	12
Sanyati	33	14	62	69	3	6	2	12
Zvimba	33	16	61	66	3	7	2	11
Makonde	33	14	62	69	3	6	2	11
Kadoma	36	23	60	59	3	8	2	10
Karoi	33	21	63	59	3	10	2	10
Chegutu	35	22	61	60	3	8	2	10
Chinhoyi	39	26	57	57	2	7	2	9
Norton	36	25	60	59	2	7	1	8
Kariba	35	23	61	62	2	8	1	8
Matabeleland North								
Tsholotsho	49	29	44	47	3	5	3	19
Nkayi	42	23	53	55	3	5	3	17
Lupane	41	23	54	55	3	5	3	17
Hwange Rural	40	19	53	56	4	8	3	17
Bubi	40	21	53	58	4	6	2	14
Binga	36	17	61	63	2	7	1	13
Umguza	44	27	50	54	3	6	2	12
Victoria Falls	33	28	62	55	3	10	1	7
Hwange	37	30	60	56	2	8	1	6
Matabeleland South								
Bulilima	57	34	36	40	3	6	3	20
Mangwe	57	35	37	40	3	7	2	18
BeitbridgeRural	42	21	51	52	4	9	3	18
Gwanda Rural	43	27	50	49	3	6	3	17
Matobo	48	31	46	46	3	6	3	17
Insiza	42	24	52	54	3	7	2	16
Umzingwane	42	27	51	51	4	6	3	16
Gwanda	40	37	57	49	2	6	1	8
Plumtree	39	39	57	47	2	6	2	7
Beitbridge	31	26	66	58	2	10	1	7

Table A5: Marital Status by Province, District and Sex, Zimbabwe, 2012 Census (Cont.)

	Never Married		Married		Divorced		Widowed	
Province/ District	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
Midlands								
Shurugwi Rural	39	17	55	58	3	7	3	18
Zvishavane	39	18	55	56	3	7	3	18
Chirumhanzu	39	18	56	58	2	6	3	18
Mberengwa	39	20	55	56	3	7	3	17
Gweru Rural	41	21	54	56	3	7	2	16
Kwekwe Rural	39	18	57	61	2	6	2	15
Gokwe South	36	16	61	66	2	5	2	14
Gokwe North	34	15	63	69	1	4	1	11
Redcliff	38	26	58	58	2	6	2	10
Kwekwe	37	27	59	56	2	7	2	9
Gweru	43	33	54	51	2	7	1	9
Gokwe Town	30	22	66	60	2	10	1	8
Zvishavane Mine	31	24	66	58	2	9	1	8
Shurugwi	31	21	65	63	2	8	1	8
Masvingo								
Bikita	40	17	56	59	2	5	2	19
Zaka	39	18	56	58	2	6	3	19
Gutu	40	18	55	58	2	6	3	18
Chivi	40	19	56	57	2	6	3	18
Masvingo Rural	37	19	59	59	2	6	2	16
Mwenezi	34	17	62	63	2	6	2	14
Chiredzi	30	16	67	66	2	6	2	12
Chiredzi Town	34	27	63	55	2	9	1	10
Masvingo	38	32	59	52	1	7	1	9
Harare								
Harare Rural	29	19	68	68	2	6	1	6
Harare Urban	37	29	59	54	2	8	2	9
Epworth	28	15	68	70	3	7	1	8

Table A6: Reported Parities by Age of Mother, Zimbabwe, 1992 Census

(a)

Children Ever Born (CEB)	Age Group						
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49
0	533918	182348	41947	17009	9792	6760	5687
1	81341	175690	64635	21356	10409	5982	4127
2	14496	108979	87731	37020	17021	9766	6696
3	2140	39383	81826	53134	23695	12246	8364
4	453	11972	56840	66026	33589	16262	10434
5	114	3163	27206	57956	41182	20820	12981
6	33	1080	10739	38535	42721	25449	15958
7	9	292	3662	19950	34204	26015	17427
8	1	104	1282	9095	23056	23503	17771
9	1	26	460	3746	12848	17914	15373
10	3	11	119	1562	6247	12092	12154
11	-	7	33	578	2799	6568	7744
12	1	3	6	223	1203	3472	4504
13	-	-	6	81	512	1552	2289
14	-	1	2	11	178	692	1104
15	-	-	-	10	58	266	463
16	-	-	1	2	25	96	223
17	-	-	-	1	8	34	85
18	-	-	-	1	3	13	35
19	-	-	-	1	3	3	13
20	-	-	-	-	1	-	4
Missing	48	48	9	5	4	0	0
Total	**632510**	**523059**	**376495**	**326297**	**259554**	**189505**	**143436**

(b)

Children Ever Born (CEB)	Age Group						
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49
0	533918	182348	41947	17009	9792	6760	5687
1	81341	175690	64635	21356	10409	5982	4127
2	14496	108979	87731	37020	17021	9766	6696
3	2140	39383	81826	53134	23695	12246	8364
4	453	11972	56840	66026	33589	16262	10434
5	114	3163	27206	57956	41182	20820	12981
6	0	1080	10739	38535	42721	25449	15958
7	0	292	3662	19950	34204	26015	17427
8	0	104	1282	9095	23056	23503	17771
9	0	0	460	3746	12848	17914	15373
10	0	0	119	1562	6247	12092	12154
11	0	0	33	578	2799	6568	7744
12	0	0	6	223	1203	3472	4504
13	0	0	0	81	512	1552	2289
14	0	0	0	11	178	692	1104
15	0	0	0	10	58	266	463
16	0	0	0	0	25	96	223
17	0	0	0	0	8	34	85
18	0	0	0	0	3	13	35
19	0	0	0	0	0	3	13
20	0	0	0	0	0	0	4
Missing	48	48	9	5	4	0	0
Total	**632462**	**523011**	**376486**	**326292**	**259550**	**189505**	**143436**
% Missing	**0.00008**	**0.00009**	**0.00002**	**0.00002**	**0.00002**	**0**	**0**
% Childless	**84.42**	**34.87**	**11.14**	**5.21**	**3.77**	**3.57**	**3.96**
Average Parities	**0.19**	**1.12**	**2.54**	**4.02**	**5.28**	**6.26**	**6.738**

Table A7: Reported Parities by Age of Mother, Zimbabwe, 2002 Census

(a)

Children Ever Born (CEB)	Age Group						
	15 - 19	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40 - 44**	**45 - 49**
0	653294	232036	65460	26420	13840	11245	9943
1	95676	235080	114280	40981	17067	9951	6717
2	15691	140899	161261	80121	33209	17457	10968
3	1741	37670	101849	84030	46329	25826	15217
4	388	9778	46006	63142	50832	36056	21062
5	66	2165	15894	34578	41311	37758	25220
6	18	864	6019	17799	29676	34762	27266
7	8	235	1756	7495	17753	26199	24217
8	7	88	770	3358	9832	17877	19215
9	1	34	316	1283	4855	10761	13425
10	-	17	118	619	2326	6210	8755
11	-	4	36	237	1024	3038	4668
12	-	2	17	149	441	1487	2466
13	-	1	4	46	158	669	1209
14	-	-	4	24	100	274	540
15	-	-	3	9	42	155	276
16	-	-	-	-	1	-	3
17	-	-	-	-	-	2	1
18	-	-	-	-	1	-	-
Missing	34	58	11	0	0	0	0
Total	**766890**	**658873**	**513793**	**360291**	**268797**	**239727**	**191168**

(b)

Children Ever Born (CEB)	Age Group						
	15 - 19	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40 - 44**	**45 - 49**
0	653294	232036	65460	26420	13840	11245	9943
1	95676	235080	114280	40981	17067	9951	6717
2	15691	140899	161261	80121	33209	17457	10968
3	1741	37670	101849	84030	46329	25826	15217
4	388	9778	46006	63142	50832	36056	21062
5	66	2165	15894	34578	41311	37758	25220
6	0	864	6019	17799	29676	34762	27266
7	0	235	1756	7495	17753	26199	24217
8	0	88	770	3358	9832	17877	19215
9	0	0	316	1283	4855	10761	13425
10	0	0	118	619	2326	6210	8755
11	0	0	36	237	1024	3038	4668
12	0	0	17	149	441	1487	2466
13	0	0	0	46	158	669	1209
14	0	0	0	24	100	274	540
15	0	0	0	9	42	155	276
16	0	0	0	0	1	0	3
17	0	0	0	0	0	2	1
18	0	0	0	0	1	0	0
Missing	34	58	11	0	0	0	0
Total	**766856**	**658815**	**513782**	**360291**	**268797**	**239727**	**191168**
% Missing	**0.00443**	**0.0088**	**0.00214**	**0**	**0**	**0**	**0**
% Childless	**85.19**	**35.22**	**12.74**	**7.33**	**5.15**	**4.69**	**5.2**
Average Parities	**0.17**	**1.04**	**2.07**	**3.02**	**4.1**	**5.07**	**5.69**

Table A8: Percent Distribution of Childlessness: ZDHS

	Age of Woman						
Year	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**
1988	83.7	28.8	7.2	3.7	2.2	2.5	3.4
1994	85.3	32.6	7.7	3.2	2.1	2.4	1.1
1999	83.8	30.7	7.7	5.2	3.7	2.7	1.9
2005	84.2	30.9	8.7	2.5	2.8	2.1	2.6
2010	81.2	30.9	8.7	2.5	2.8	2.4	2.6

Source: CSO//ICF Macro- 1988, 1994, 1999, 2005; ZIMSTAT//ICF Macro- 2010

Table A9: Fertility by District: Bulawayo Province

District		**Age Group**							**TFR**
		15 – 19	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40 - 44**	**45 - 49**	
Bulawayo	Parities	0.1	0.7	1.5	2.2	2.7	3	3.4	
	ASFR	0	0.1	0.1	0.1	0.1	0	0	2.7

Table A10: Fertility by District: Manicaland Province

District		**Age Group**							**TFR**
		15 – 19	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40 - 44**	**45 - 49**	
Buhera	Parities	0.2	1.3	2.5	3.4	4.3	4.8	5.3	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.8
Chimanimani	Parities	0.2	1.3	2.3	3.1	3.9	4.3	4.9	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.1
Chipinge	Parities	0.2	1.3	2.5	3.5	4.3	4.8	5.3	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.4
Makoni	Parities	0.2	1.3	2.4	3.2	3.9	4.3	4.8	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.4
Mutare Rural	Parities	0.3	1.4	2.5	3.4	4.3	4.6	5	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.7
Mutasa	Parities	0.2	1.2	2.3	3.1	3.9	4.3	4.7	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.2
Nyanga Rural	Parities	0.2	1.3	2.3	3.1	3.9	4.4	4.8	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.2
Mutare	Parities	0.1	0.8	1.7	2.4	2.9	3.2	3.5	
	ASFR	0	0.2	0.2	0.1	0.1	0	0	3.2
Rusape	Parities	0.1	1	1.8	2.5	3	3.3	3.7	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.3
Chipinge	Parities	0.1	1	2	2.6	3.3	3.4	3.9	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.3
Total	**Parities**	**0.2**	**1.2**	**2.3**	**3.1**	**3.9**	**4.3**	**4.8**	
	ASFR	**0.1**	**0.2**	**0.2**	**0.2**	**0.1**	**0.1**	**0**	**4.2**

Table A11: Fertility by District: Mashonaland Central Province

District		Age Group							TFR
		15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
Bindura Rural	Parities	0.3	1.4	2.5	3.3	4	4.4	4.8	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.4
Muzarabani	Parities	0.3	1.6	2.6	3.5	4.3	4.7	5.1	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.7
Guruve	Parities	0.2	1.4	2.3	3.2	3.9	4.3	5	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.1
Mazowe	Parities	0.3	1.4	2.4	3.1	3.7	4.1	4.5	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.1
Mount Darwin	Parities	0.3	1.4	2.5	3.3	4.1	4.5	4.9	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.4
Rushinga	Parities	0.2	1.4	2.5	3.4	4.1	4.4	5	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.3
Shamva	Parities	0.3	1.5	2.5	3.3	4.1	4.6	5.2	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.5
Mbire	Parities	0.3	1.5	2.6	3.5	4.4	4.9	5.3	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.4
Bindura Urban	Parities	0.1	1	1.8	2.5	3	3.3	3.7	
	ASFR	0	0.2	0.2	0.1	0.1	0	0	3.3
Mvurwi	Parities	0.1	1	2	2.5	3.2	3.3	3.8	
	ASFR	0.1	0.1	0.1	0.1	0.1	0	0	2.8
Total	**Parities**	**0.3**	**1.4**	**2.4**	**3.2**	**4**	**4.4**	**4.8**	
	ASFR	**0.1**	**0.2**	**0.2**	**0.2**	**0.1**	**0**	**0**	**4.2**

Table A12: Fertility by District: Mashonaland East Province

District		Age Group							TFR
		15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
Chikomba	Parities	0.16	1.11	2.13	2.87	3.57	3.97	4.43	
	ASFR	0.06	0.22	0.19	0.16	0.11	0.05	0.01	3.98
Goromonzi	Parities	0.22	1.23	2.22	2.91	3.5	3.84	4.3	
	ASFR	0.08	0.21	0.2	0.16	0.11	0.04	0.01	4.13
Hwedza	Parities	0.17	1.19	2.2	2.95	3.64	3.95	4.68	
	ASFR	0.07	0.21	0.19	0.16	0.12	0.04	0.01	3.99
Marondera Rural	Parities	0.27	1.32	2.27	3	3.57	4.08	4.58	
	ASFR	0.09	0.22	0.2	0.15	0.1	0.04	0	4.05
Mudzi	Parities	0.26	1.44	2.53	3.42	4.18	4.59	5.03	
	ASFR	0.1	0.23	0.22	0.17	0.12	0.05	0.01	4.51
Murehwa	Parities	0.24	1.27	2.33	3.06	3.81	4.22	4.65	
	ASFR	0.09	0.22	0.2	0.15	0.11	0.05	0	4.04
Mutoko	Parities	0.25	1.38	2.35	3.18	3.9	4.21	4.69	
	ASFR	0.09	0.23	0.21	0.16	0.11	0.05	0.01	4.33
Seke	Parities	0.24	1.25	2.24	2.92	3.48	3.92	4.36	
	ASFR	0.09	0.2	0.19	0.16	0.12	0.04	0.01	3.99
UMP	Parities	0.3	1.48	2.58	3.4	4.23	4.72	5.05	
	ASFR	0.11	0.24	0.23	0.17	0.14	0.07	0.02	4.84
Marondera	Parities	0.11	0.87	1.69	2.41	2.84	3.06	3.55	
	ASFR	0.04	0.18	0.16	0.13	0.09	0.03	0.01	3.2
Ruwa Local Board	Parities	0.09	0.73	1.61	2.41	2.87	3.07	3.47	
	ASFR	0.03	0.14	0.15	0.14	0.1	0.03	0	2.98
Total	**Parities**	**0.22**	**1.23**	**2.23**	**2.99**	**3.65**	**4.04**	**4.51**	
	ASFR	**0.08**	**0.21**	**0.2**	**0.16**	**0.11**	**0.04**	**0.01**	**4.07**

Table A13: Fertility by District: Mashonaland West Province

District		Age Group							TFR
		15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
Chegutu Rural	Parities	0.8	1.5	2.4	3.1	3.6	4.1	4.5	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4
Hurungwe	Parities	0.8	1.6	2.6	3.4	4.2	4.6	5.2	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.6
Mhondoro Ngezi	Parities	0.8	1.5	2.4	3.1	3.9	4.4	4.8	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.2
Kariba Rural	Parities	1	1.6	2.6	3.6	4.6	5.1	5.4	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.3
Makonde	Parities	0.8	1.7	2.6	3.5	4.2	4.7	5.3	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.5
Zvimba	Parities	0.7	1.5	2.3	3	3.6	4	4.4	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.1
Sanyati	Parities	0.8	1.6	2.5	3.2	4.1	4.6	5	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.4
Chinhoyi	Parities	0.6	1.1	1.9	2.5	3.1	3.3	3.7	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	3.3
Kadoma	Parities	0.6	1.2	2	2.6	3	3.3	3.8	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.3
Chegutu	Parities	0.7	1.3	2	2.6	3.1	3.4	3.9	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.4
Kariba	Parities	0.6	1.2	1.9	2.6	3.1	3.3	4	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.2
Karoi	Parities	0.7	1.3	2	2.6	3.3	3.4	3.7	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.4
Total	**Parities**	**0.7**	**1.5**	**2.3**	**3.1**	**3.7**	**4.1**	**4.6**	
	ASFR	**0.1**	**0.2**	**0.2**	**0.2**	**0.1**	**0**	**0**	**4**

Table A14: Fertility by District: Matabeleland North Province

District		Age Group							TFR
		15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
Binga	Parities	0.2	1.2	2.2	3.3	4.4	5	5.3	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4
Bubi	Parities	0.3	1.4	2.4	3.2	4	4.6	4.9	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	4
Hwange Rural	Parities	0.2	1.1	2	2.6	3.3	3.8	4.5	
	ASFR	0.1	0.2	0.1	0.1	0.1	0	0	3.2
Lupane	Parities	0.2	1.3	2.4	3.3	4.2	5	5.3	
	ASFR	0.1	0.2	0.2	0.1	0.1	0.1	0	4
Nkayi	Parities	0.2	1.3	2.6	3.5	4.4	5.1	5.6	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.2
Tsholotsho	Parities	0.2	1.2	2.1	3	3.7	4.4	4.8	
	ASFR	0.1	0.2	0.2	0.1	0.1	0.1	0	3.9
Umguza	Parities	0.2	1	2	2.6	3.3	3.8	4.4	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.2
Hwange	Parities	0.1	0.8	1.5	2.2	2.7	3.1	3.6	
	ASFR	0	0.1	0.1	0.1	0.1	0	0	2.8
Victoria Falls	Parities	0.1	0.8	1.6	2.2	2.7	2.8	3.1	
	ASFR	0	0.1	0.1	0.1	0.1	0	0	2.7
Total	**Parities**	**0.2**	**1.2**	**2.1**	**3**	**3.8**	**4.4**	**4.9**	
	ASFR	**0.1**	**0.2**	**0.2**	**0.1**	**0.1**	**0**	**0**	**3.7**

Table A15: Fertility by District: Matabeleland South Province

District		Age Group							TFR
		15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
Beitbridge Rural	Parities	0.4	2	3.5	4.9	6.1	6.8	7.4	
	ASFR	0.1	0.2	0.2	0.1	0.1	0.1	0	4.1
Bulilima	Parities	0.3	1.6	3	4	5.2	6.2	6.8	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.5
Mangwe	Parities	0.3	1.6	3	4.2	5.4	6.1	6.8	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.6
Gwanda Rural	Parities	0.3	1.8	3.2	4.4	5.6	6.3	6.9	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.6
Insiza	Parities	0.3	1.9	3.4	4.6	5.9	6.7	7.5	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.9
Matobo	Parities	0.3	1.6	3	4.2	5.5	6.4	6.8	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.6
Umzingwane	Parities	0.3	1.6	3	4	4.9	5.7	6.5	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.3
Gwanda	Parities	0.2	1.2	2.4	3.3	3.8	4.5	5.3	
	ASFR	0.1	0.1	0.2	0.1	0.1	0	0	3.1
Beitbridge	Parities	0.2	1.4	2.5	3.5	4.1	4.6	5.2	
	ASFR	0.1	0.2	0.1	0.1	0.1	0	0	2.9
Plumtree	Parities	0.2	1.4	2.5	3.4	4.2	4.9	5.4	
	ASFR	0.1	0.2	0.1	0.1	0.1	0	0	3
Total	**Parities**	**0.3**	**1.7**	**3**	**4.2**	**5.3**	**6.1**	**6.8**	
	ASFR	**0.1**	**0.2**	**0.2**	**0.1**	**0.1**	**0**	**0**	**3.6**

Table A16: Fertility by District: Midlands Province

District		Age Group							TFR
		15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
Chirumhanzu	Parities	1.1	1.5	2.3	3.1	3.7	4	4.6	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	3.9
Gokwe North	Parities	1	1.7	2.7	3.6	4.8	5.3	5.7	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.8
Gokwe South	Parities	1	1.7	2.7	3.6	4.6	5.1	5.5	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.5
Gweru Rural	Parities	0.9	1.4	2.3	3	3.6	4	4.6	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.2
Kwekwe Rural	Parities	1.1	1.7	2.5	3.4	4.1	4.7	5.1	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.1
Mberengwa	Parities	0.9	1.5	2.5	3.3	4.1	4.5	5	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.1
Shurugwi Rural	Parities	0.8	1.5	2.3	3	3.6	4	4.7	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4
Zvishavane	Parities	0.9	1.5	2.3	3	3.7	4.1	4.5	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.5
Gweru	Parities	0.6	0.9	1.7	2.3	2.8	3	3.5	
	ASFR	0	0.1	0.1	0.1	0.1	0	0	2.7
Kwekwe	Parities	0.6	1.2	1.9	2.5	3	3.3	3.7	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.1
Redcliff	Parities	0.8	1.1	1.9	2.6	3.1	3.4	4	
	ASFR	0	0.2	0.2	0.1	0.1	0	0	3.2
Zvishavane Mine	Parities	0.6	1.1	1.9	2.5	3.1	3.4	3.7	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.3
Gokwe Town	Parities	0.8	1.3	2.1	2.8	3.2	3.5	4.3	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.5
Shurugwi	Parities	0.6	1.2	2	2.7	3.3	3.4	3.8	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.5
Total	**Parities**	**0.9**	**1.4**	**2.3**	**3.1**	**3.9**	**4.3**	**4.7**	
	ASFR	**0.1**	**0.2**	**0.2**	**0.2**	**0.1**	**0**	**0**	**3.8**

Table A17: Fertility by District: Masvingo Province

District		Age Group							TFR
		15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
Bikita	Parities	0.1	1.1	2.2	3.1	3.8	4.3	4.8	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.1
Chiredzi	Parities	0.2	1.3	2.4	3.3	4.1	4.6	5.2	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.4
Chivi	Parities	0.2	1.2	2.1	2.9	3.7	4	4.6	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	3.9
Gutu	Parities	0.1	1.1	2.1	2.9	3.6	4.1	4.6	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	3.9
Masvingo Rural	Parities	0.2	1.1	2.1	2.9	3.7	4.1	4.6	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	3.9
Mwenezi	Parities	0.2	1.3	2.5	3.4	4.3	4.9	5.4	
	ASFR	0.1	0.2	0.2	0.2	0.1	0.1	0	4.4
Zaka	Parities	0.2	1.2	2.2	3.1	3.9	4.3	4.9	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4
Masvingo	Parities	0.1	0.7	1.5	2.3	2.8	3.1	3.5	
	ASFR	0	0.1	0.1	0.1	0.1	0	0	2.8
Chiredzi Town	Parities	0.1	0.8	1.7	2.4	2.9	3.2	3.7	
	ASFR	0	0.2	0.2	0.1	0.1	0	0	3.2
Total	**Parities**	**0.2**	**1.1**	**2.2**	**3**	**3.8**	**4.2**	**4.7**	
	ASFR	**0.1**	**0.2**	**0.2**	**0.2**	**0.1**	**0**	**0**	**3.9**

Table A18: Fertility by District: Harare Province

District		Age Group							TFR
		15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
Harare Rural	Parities	0.2	1.1	2	2.8	3.3	3.6	4.1	
	ASFR	0.1	0.2	0.2	0.1	0.1	0	0	3.8
Harare Urban	Parities	0.1	0.7	1.5	2.2	2.7	3	3.3	
	ASFR	0	0.1	0.2	0.1	0.1	0	0	2.9
Chitungwiza	Parities	0.1	0.8	1.7	2.4	2.9	3.2	3.7	
	ASFR	0	0.2	0.2	0.1	0.1	0	0	3.3
Epworth	Parities	0.3	1.2	2.2	2.9	3.5	3.8	4.3	
	ASFR	0.1	0.2	0.2	0.2	0.1	0	0	4.2
Total	**Parities**	**0.1**	**0.8**	**1.6**	**2.3**	**2.8**	**3.1**	**3.4**	
	ASFR	**0**	**0.2**	**0.2**	**0.1**	**0.1**	**0**	**0**	**3.1**