FERTILITY AND THE STATUS OF WOMEN

By

ELTOM, SUDA ALI

This project is submitted in partial fulfillment of the
requirements for a Post-Graduate Diploma in Population
studies at the Population Studies and Research
Institute, University of Nairobi.

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Declaration

This project is my original work and to the best of my knowledge has not been presented for a degree in any other University.

Signature...................

This project has been submitted for examination with our approval as supervisors.

Signature....................

Prof. A. B. C. Ocholla Ayaya

Signature...................

Dr. Zibeon Muganzi

Population Studies and Research Institute

University of Nairobi,

P.O.Box 30197,

Nairobi.

Dedication

Acknowledgement

This work is dedicated to my mother granting
me the opportunity to pursue this course.
My sincere thanks to my supervisors Professor A.B.C.
Ocholla Ayayo and Dr. Zibeon Muganzi for their
guidance and supervision. Finally, I'm grateful to the
assistance of Professor J.A.M. Ottieno and Ms. Anne
Khasakhala.

Acknowledgement

First I would like to thank the Institute for granting me the opportunity to pursue this course. My sincere thanks to my supervisors Professor A.B.C. Ocholla Ayayo and Dr. Zibeon Muganzi for their guidance and supervision. Finally, I'm grateful to the assistance of Professor J.A.M. Otieno and Ms. Anne Khasakhala.

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Abstract

This study has looked into the association between the status of women and fertility behavior in three provinces in Kenya; these are : Nairobi, Coast and Western Provinces.

The "status of women" has been represented by women's work status. Other background factors such as religion and province have also been analysed. Fertility behaviour, on the other hand has been represented by Total Fertility Rate (TFR). Cross-tabulation has been used to analyse the impact of these socio-economic and socio-cultural factors on fertility behaviour using the Kenya Demographic and Health Survey (1989)

The findings show that women's education and work status has a negative impact on fertility behaviour. The effect of religion, however, was not conclusive. A comparison of the three provinces revealed the existence of differentials in (TFR) for all the independent variables according to rural-urban setting. Thus Nairobi had the lowest TFR, Western Province the highest TFR, with Coast Province lying in between the two.

Therefore promotion of socio-economic development in general and improvement in the status of women in particular will be a means of reducing fertility levels in Kenya.
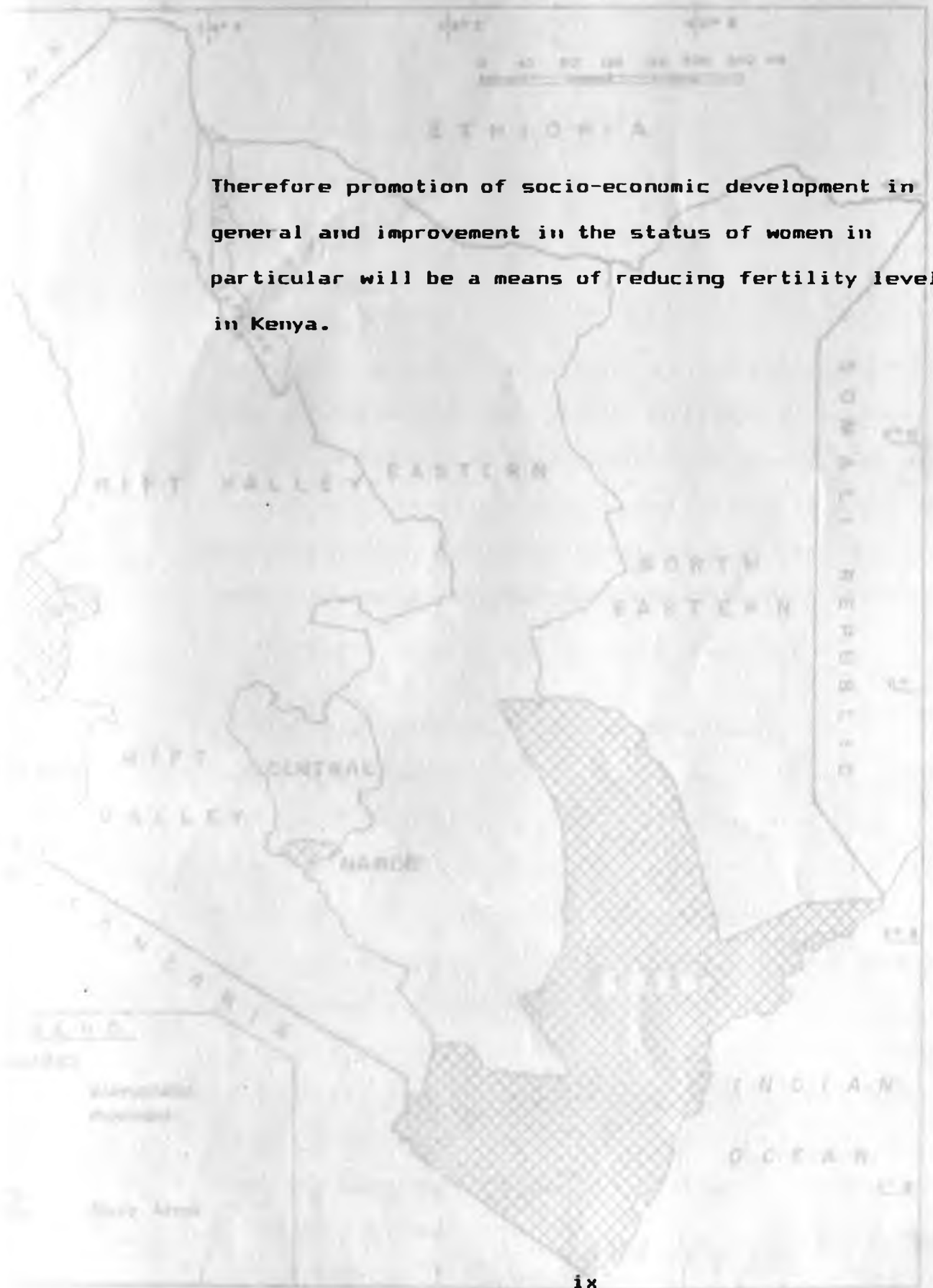
Fig. 1 : MAP OF KENYA BY PROVINCES

CHAPTER ONE.

General Introduction

Introduction

The impact of modernization on fertility behavior has been the focus of a vast amount of recent literature. Various indicators of modernization have been used to analyse this impact. Of these, the "status of women" has often been cited as an important indicator of modernization which may consequently affect fertility behaviour.

Despite improved socio-economic development the majority of women in Kenya still have a low status. A 1988 chart of the Population Crisis Committee (PCC) ranks countries according to the status of women using five indicators namely; health, marriage and children, education employment, and social equality. In a ranking which ranged from excellent very good, good, fair, to poor, very poor, and extremely poor; Kenya ranked as a country with a very poor status of women. Given that fertility in Kenya is high, it is thus necessary to study the association between the status of women, and fertility behaviour.

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1.1   Background to the Study Area.

The study does not single out any ethnic groups as such and therefore the study area includes Nairobi, Coast and Western Provinces.

Nairobi

Nairobi is the largest urban centre and the capital city of Kenya. It commands special status as a province as well as a district. It is divided into five divisions.   These are Pumwani, Makadara, Kasarani, Dagoretti and Kibera.

Nairobi covers an area of 684 sq. km. The population according to the 1979 census was 827,775 and the population density was 1210 persons per sq km. Fertility studies either on Provincial or District level have found Nairobi to be experiencing the lowest Total Fertility Rate in the country. TFR was found to be 4.9 births per woman in 1979.

The occupational structure is diverse. A large number of people are employed in the Industrial sector. Other occupations include civil service, retail trade.

farming (particularly in periphery of Nairobi). In-
migration from the rural areas has resulted in rising
unemployment levels, and has put a strain on social
services such as education, health and housing.

Coast Province

Coast Province is a rural-cum-urban Province that is
bounded on the east by the Indian Ocean. It is
comprised of six Districts, namely; Tana River, Taita,
Kilifi, Kwale, Lamu, and Mombasa.

Coast Province covers an area of 83603 sq km.
Population size was 1,342,794, population density was
16 persons per sq km, and TFR was 5.5 according to the
1979 census.

Geologically the area is diverse and this is reflected
in the wide variation of soil type and fertility. The
climate is hot and humid throughout the year except
where altitude yields a locally cooler climate as in
Taita Hills. The main economic activity is tourism,
however, fishing and agriculture(particularly
horticultural fruits) are practiced.

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Western Province.

Western Province falls within the portion of the Lake Victoria Basin that is within Kenya. It is divided into Kakamega district, Busia district and Bungoma district. Western Province covers an area of 8,360 sq km andj the population size was 1,832,663 according to the 1979 census. Population density was 223 persons per sq km and TFR was 7.4.

There is a fairly wide variation in rainfall and soil quality within the region and this has an important bearing upon farm output. Western Province is a predominantly rural area with agriculture being the main economic activity. Population pressure on land has caused considerable male out-migration to the urban centres in search of employment.

1.2. Problem Statement.

Oppong (1984) states that, "In many communities women in different types of employment and with contrasting levels of education have different family sizes and varying attitudes and practices towards fertility regulations. Some of those attitudes and practices are

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opposed to a few number of children and others are
supportive of a small family size.

This study focuses on the impact of the status of women
measured by educational attainment and work status on
fertility behavior in three provinces in Kenya, namely;
Nairobi, Coast Province, and Western Province.

1.3   Justification.

The most recent Kenya Demographic and Health Survey
(KDHS 1989) estimates Total Fertility Rate in Kenya at
6.7. This places it among the countries with the
highest fertility levels in the world.

Women in traditional Kenyan culture have low status
despite having some measure of economic independence.
Children have been viewed both as a source of domestic
labour and as a symbol of social status and this has
precipitated a high demand for children. Thus an
investigation into the association between the "status
of women" and fertility behaviour may be an important
contribution in the analysis of the determinants of
fertility in a country experiencing high fertility
rates such as Kenya.

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1.4   Objective of the study.

The broad objective of this study is to examine how
the "status of women" relates to fertility behaviour.
Specifically the study intends to:

i) Determine whether there are differentials in
    fertility behaviour by women's educational status
    and work status.

ii) Determine whether there are differentials in
    fertility behaviour by religion.

iii) To compare these associations at the Provincial
    level in the three chosen Provinces.

1.5. Scope and Limitations

Due to limited time and resources this study will make
use of secondary data, namely the KDHS (1989). Although
the KDHS was national in coverage, however, for the
purpose of this study only three provinces have been
chosen. These are Nairobi, Western and Coast province.
One of the limitations of using secondary data is that
the KDHS has a small sample size, thus only a general

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picture of the real situation can be revealed by this study. The data on women work status in the KDHS does not include a breakdown by type of occupation and thus narrows the scope of this study.

1.6 Literature Review

Various studies have focused on the negative impact of female education and employment on fertility behaviour. Anker (1975) analysed fertility differentials for 69 developing countries he found that adult literacy rates, secondary school enrollment rates and female labour force participation rates were negatively related to fertility.

Kobayashi (1975) studied fertility differentials by women's work status in Japan using data from the Fertility Survey. He compared the mean number of surviving children between three categories; housekeeping only, family workers; and salary workers for the 1965, 1967, 1969 surveys. The results revealed that family size was the highest for family workers, followed by those engaged in housekeeping only, while salary earners had the smallest family size.

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Chahil (1977) in an analysis of women's work and
fertility in India using evidence from the National
Sample Survey 1962; found that the total number of
children born alive to a woman was inversely related to
her level of education. He however, found that the
negative relationship between employment and fertility
does not hold true in the case of India. He attributed
this to the fact that the occupations available to
Indian women are in those types of industries-
agricultural and cottage industries where it is readily
possible to combine the roles of worker and mother.

Muinde and Mukras(1979), studied some aspects of
fertility determinants in five selected districts of
Kenya, namely Kilifi, Kiambu, Nairobi, Kisumu, and
Kakameya. They found that an inverse relationship
between educational level and number of children ever
born to a woman during her childbearing period. The
results of their study also indicated that female
employment has a declining impact on fertility.

According to Henin(1979), women with primary education
in Kenya have higher fertility than women with no
education due to the fact that they become more

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conscious of the importance of hygiene and other basic
health requirements that prevent pregnancy wastage.
Beyond seven or eight years of education, fertility
tends to decline. Thus it is secondary education that
is probably the prerequisite for a woman to change her
attitude towards family size.

Taha and Abdel-Ghany(1980), studied recent socio-
economic fertility differentials in Egypt using the
1976 census data. They found that fertility in Egypt
was inversely related to the educational status of ever
married women in all duration of marriages with few
exceptions.

According to Casterline (1980) who studied fertility
differentials in Pakistan using the 1975 Pakistan
Fertility, Surveys, women's educational attainment is
associated with lower cumulative and recent fertility.
The negative effect is much larger for those who
proceed beyond primary schooling. However, female
employment experience seems to bear no district
relationship with neither cumulative nor recent
fertility.

Rodriguez and Cleland (1981) conducted a large scale cooperative study on the relationship between Total Marital Fertility Rate and women's employment status. They found a strong relationship between work status and fertility, with non-family workers having the lowest fertility and those who had not worked since marriage showing the highest fertility.

Henin and Mwobobia (1982), in a cross regional study of fertility in Kenya, found a negative correlation between female employment and Total Fertility Rate. This relationship appeared to be mainly due to the influence of urbanization and contraception.

Oppong and Abu (1984) studied the changing maternal roles of Ghanian women. Their findings supported the contention that education, employment in the modern urban sector, employment in the modern urban sector, and migration had an impact upon women's various roles and consequently upon motherhood and fertility.

Barta et al (1985) studied female labour force participation and fertility in Hungary, using data from the population census for the period 1949 to 1980. They

found that in recent decades, the greatly increased economic activity of women has played and important role in the general reduction of fertility. They also found that the number of children of married women both at present and in previous decades is negatively related to higher educational levels.

Onguti (1987), in a research on fertility levels and differentials in Kenya using evidence from the Kenya Contraceptive Prevalence Survey 1984, found that TFR starts to decline after 5 years of education and declines more rapidly after 9 years of education. He also found that women who had never worked had the highest fertility and those who were currently working had the lowest, followed by those who had worked in the past.

UN(1987) using evidence from the World Fertility Survey, found that within the Economic and Social Commission for Asia and the Pacific (ESCAP) region, total marital fertility rates were inversely related to education in all the countries with the exception of Indonesia and Sri Lanka.

The above review of literature thus reveals that among
the determinants of fertility, women's education
appears to be a major determinant. The impact of
women's employment on fertility however, does not
always hold true. This is due to the varying nature of
employment opportunities available to them.

1.7   Conceptual Framework.

Oppong (1982) introduced a framework to explain the
roles of women. According to her the impact of children
is traced through their impact on each of the major
roles she plays in her life; 1) as a mother 2) as a
wife 3) a member of household 4) as a worker 5) a
kinswoman 6) a member of community and 7) an
individual. Children provide various economic, social
and psychic rewards, but women may have alternative
sources of satisfaction available to them. On the other
hand children also impose opportunity costs and create
the role conflict.

Lee and Bulatao (1982) argues that modernization
radically alters the demand for children. First,
children' economic contributions fall off considerably

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as education gains in importance, as the tasks children
do become obsolete or unnecessary due to labour force
shifts out of agriculture, as children are replaced by
other institutions providing security against risk or
old age; and as greater social mobility and weaker
family and ties reduce dependency on children. Second,
direct costs of children rise in monetary terms,
although incomes are also rising. Time costs on the
other hand become heavier with modernization;
substitutes for parental care become more costly, jobs
become less compatible with childbearing and the value
of parental time rises. Finally, taste may change
against children and in favour of new material goods
including those necessary for better child quality,
although other factors in tastes such as those based on
ethnic differences may remain largely unaffected.

The conceptual framework for this study may
represented by the following model:

```
┌──────────────┐  ┌────────────┐  ┌────────────┐  ┌────────────┐
│Socio-Economi-│  │The Roles   │  │The Value   │  │Demand      │
│c &Socio-Cultu│─▶│ of Women   │▶│ of Child-  │▶│ for        │
│ -ral factors │  │            │  │  ren       │  │ hildren    │
└──────────────┘  └────────────┘  └────────────┘  └────────────┘
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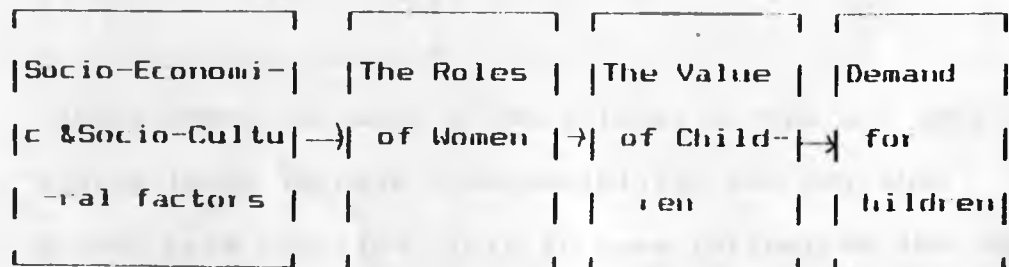
For the purpose of this study, socio-economic and socio-cultural factors, which are the independent variables are represented by women's education, women's work status, religion and province. The demand for children, which is the dependent variable is represented by Total Fertility Rate (TFR). This is shown below in the operational framework:

SOCIO-ECONOMIC
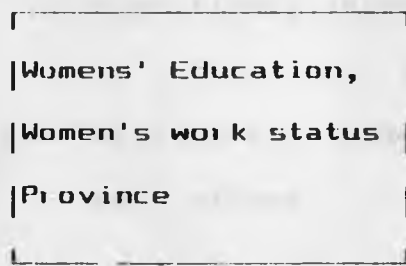
```
┌─────────────────────┐
|Womens' Education,   |
|Women's work status  |
|Province             |                         FERTILITY
|                     |
└─────────┬───────────┘                 ┌─────────────────────┐
          └──────────────────────────>  |                     |
                                        |                     |
   SOCIO-CULTURAL                       |   Total Fertility   |
                                        |      Rate           |
┌─────────────────────┐                 |                     |
|     Religion         |------------->  |                     |
|                      |                └─────────────────────┘
|                      |
└──────────────────────┘
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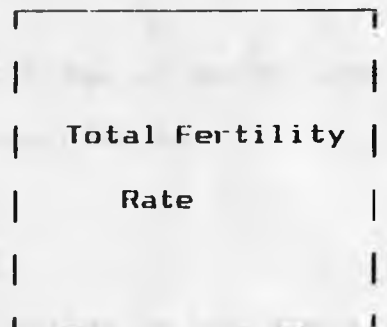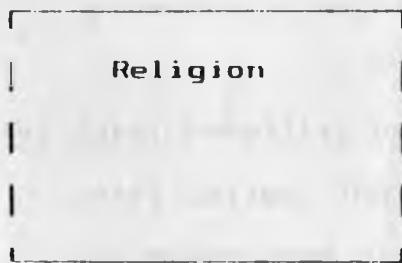
Improvement in women's educational status and work status leads to role incompatibility and may thus create role conflict. This in turn influences the value

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and cost of children to mother and hence her fertility preferences. The effect is enhanced by background factors such as religion and province.

1.8. Hypotheses

The specific hypothesis to be tested in this study are:

1) Total Fertility Rate Varies inversely with women's educational attainment.

ii) Total Fertility Rate varies inversely with women's work status.

iii) The association between the " status of women" and Total Fertility Rate varies according to urban/rural setting.

iv) Total Fertility Rate varies according to religious affiliation. The stricter faiths are expected to be associated with a higher Total Fertility Rate.

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CHAPTER TWO

Methodology

2.1 Source of Data.

This study will make use of data collected in the KDHS
which was conducted between December 1988 and May 1989.
The KDHS was a national Survey that was carried out by
the National Council for Population and Development
(NCPD) in collaboration with the Central Bureau of
Statistics(CBS) and the Institute of Resource and
Development(IRD).

The sample for the KDHS was based on the National
Sample Survey and Evaluation Programme(NASSEP) master
sample. It is a two-stage design, stratified by urban-
rural residence and within rural stratum by individual
district. The sample size for this study is Nairobi
for 524, 938 for Western, and 487 for Coast Province.

The information derived from the data is:
(1) Births in the past year by women in reproductive
    ages by 5 year-age-groups.

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(2) Total female population of reproductive age by five year age groups.

(3) Births in the past year by mother's education .

    (i)   No education

    (ii) Primary education

    (iii) Secondary education

    (iv) Higher

(4) Births in the past year by mothers work status.

    (i)   Working

    (ii)   Not working

(5) Births in the past by mother's religion.

    (i)   Catholic

    (ii)   Protestant

    (iii) Muslim

    (iv) Other

    (vii) No religion

Quality of Data

Like in other developing countries, the data in Kenya suffers from various errors. The KDHS is no exception. The most common of these errors is age

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misreporting which occurs due to respondent's to
prefences for ages ending in certain digits. It may
also be due to the tendency of the respondent's to
declare themselves younger or older than their actual
ages. Other possible errors include faulty
interpretation of questions by the interviewer, and
respondents's lack of co-operation during the
interview.

2.3 Method of Data analysis

Cross tabulation analysis will be used in this
study to compare women's fertility behaviour with their
educational attainment, work status, and religion.
To start with, 33 tables will be used to analyse the
relationship between the dependent and independent
variables in the study.

The above tables will be further summarized and
tabulated to give the following analysis:
(i) Total Fertility Rate by educational attainment for
    the three provinces.

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(ii) Total Fertility Rate by work status for the
     provinces.
(iii) Total Fertility Rate by religion for the
     provinces.

The findings of the study will be based on the above
tables.

Method for Computing TFR

The need to standardize the independent variables by
age has necessitated the computation of TFR to measure
fertility behaviour.

Total Fertility Rate(TFR) is the number of children a
women would have from age 15 to 49 if she were to bear
children at the prevailing Age-Specific Fertility
Rates(ASFR).

   step(1) – Calculation of ASFR per women f(i)

$$f(i) = BPY(i)/FP(i)$$

   where BPY(i) denotes the number of births in the
past year by women in age group(i)

   and FP(i) is the total number of women in age
group(i).

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Step (2) - Summing up the ASFR and multiplying by five to get TFR.

Research Findings

3.1 Introduction

This chapter deals with the presentation and analytical interpretation of how the "status" of women as measured by women's education and work status relates to fertility behaviour.

The socio-economic and socio-cultural variables are women's education, work status, religion, and province. Fertility behaviour on the other hand is measured by Total Fertility Rate(TFR). The impact of the independent variables on fertility will be examined using cross-tabulation analysis.

CHAPTER THREE

Research Findings

3.1 Introduction:

This chapter deals with the presentation and analytical interpretation of how the 'status' of women as measured by women's education and work status relates to fertility behaviour.

The socio-economic and socio-cultural variables are women's education, work status, religion, and province. Fertility behaviour on the other hand is measured by Total Fertility Rate(TFR). The impact of the independent variables on fertility will be examined using cross-tabulation analysis.

3.2 Analysis and Interpretation of the data.

3.2.1 Education

Table 3.2.1: TFR by educational attainment in Nairobi, Coast Province, and Western Province .

Education	Total Fertility Rate		
	Nairobi	Coast Province	Western Province
No education	4.8	5.1	7.8
Primary	4.3	4.6	8.8
Secondary	3.6	2.9	4.8
* Higher	–	–	–

Note:

* TFR was not computed for this category of education due to the small sample size.

Table 3.2.1 above illustrates the relationship between TFR and educational attainment in Nairobi, Coast Province, and Western Province. The table shows that in Nairobi, TFR is highest for women with no education, 4.8, followed by those with primary education 4.3, women with secondary education have a TFR of 3.6.

The results thus indicate that TFR declines steadily with educational attainment upto secondary education, after which it declines rapidly.

These findings are not unique. Onguti(1987) found similar evidence using the Kenya Contraceptive Prevalence Survey. The declining impact of education on fertility may be explained by the fact that a woman's exposure to education changes her attitude towards her role in society. Thus it emphasizes her role as an individual relative to her other roles as a mother , wife , member of household, kinswoman, and as a member of community. This in turn affects the rewards perceived from children; as a symbol of social status, and security against old age.

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In Coast Province TFR is 5.1 for women with no
education, 4.6 for women with primary education, and
2.9 for women with secondary education. Thus it shows
similar pattern to Nairobi, with education having a
negative impact on TFR. The findings for Western
province on the other hand, indicate that women with
primary education have the highest fertility a TFR of
8.8, followed by those with no education at all, TFR of
7.8. TFR then declines rapidly , women with secondary
education have a TFR of 4.8.

Again these findings are not unique. According to Henin
(1979), the fertility of women with primary education
is higher than that of women with no education at all
because they become more conscious of the importance of
hygiene and other basic health requirements that
prevent pregnancy wastage.

A comparison of TFR by educational attainment for the
three provinces reveals that Western Province has a
higher TFR for all levels of education than Nairobi
and Coast Province. This may be explained by the
impact of rural vs. urban lifestyle on the fertility
behaviour . Western Province is a predominantly rural

area. Thus we would expect it to have a more
traditional social setting in which women's traditional
roles as childbearers and childrearers are more rigidly
sustained. In such a setting fertility would be more
resistant to the forces of change brought about by
education.

3.2.2 Work status

Table 3.2.2 TFR by work status in Nairobi, Coast
Province and Western Province.

Work Status	TFR		
	Nairobi	Coast Province	Western Province
Working	2.4	1.9	4.6
Not Working	4.9	4.9	8.3

Table 3.2.2 shows the association between TFR and work

status in the three provinces. The KDHS (1989)
questionnaire includes a question on work status. The
question is stated as follows:

Q.) Are you working to earn money other than on a farm
     or business run by your family?

Thus " not working" shall be interpreted as either not
working in a farm/ business run by the family. On the
other hand "working" shall be interpreted as gainful
employment other than in a family business or farm.

The table indicates that in Nairobi, TFR is lower   for
working women(2.4), for women who are not
working(4.9).   Similar results were found by Onguti
(1987), Oppong and Abu (1984), Munde and Mukras (1979).
These findings lend support to the maternal role
incompatibility hypothesis. This states that the
greater the conflict between working and caring for
young children the more negative the relationship
between women's work and fertility.

In terms of the value and cost of children, women's
work reduces their dependence on the economic

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assistance from their children whether in the form of labour or as security against old age.

Coast Province has a similar pattern of fertility behaviour. TFR of working women is 1.9 compared to a TFR of 4.9 for women who are not working. The table indicates that Western Province has a lower TFR for working women(4.6), and a TFR of 8.3 for women who are not working.

A comparison of the three provinces reveals that Western Province again has a higher TFR for both categories of work status than Nairobi, and Coast Province. As stated earlier a rural setting, implies a traditional setting, whereby substitutes for maternal care are readily available due to the extended family system.

On the other hand, an urban setting such as in Nairobi or in parts of Coast Province is characterized by weaker family ties due to the breakdown of the extended family system, and paid substitutes for maternal care are not always affordable. Thus we would expect the role incompatibility to be more pronounced and thus

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fertility to be lower than in a rural area. Further,
social mobility makes couples more conscious of the
increasing burden of the costs of childbearing and
childbearing. Costs such as education and other costs
of living which are greater in the cities than in
the rural areas. The predominance of formal sector
jobs in the urban centres may also be an explanation
for the apparent rural-urban differentials in fertility
behaviour. This is due to the fact that formal sector
employment places stricter rules and regulation on
employees and is thus less compatible with the maternal
rule. In terms of the value and costs of children, the
shift in the occupational structure in the modern urban
sector from agriculture to industry and services,
reduces the value of children as a source of cheap
labour.

3.2.3 Religion:

Table 3.2.3 TFR by religion in Nairobi,Coast Province, and Western Province:

Religion	TFR		
	Nairobi	Coast Province	Western Province
Catholics	2.9	3.1	8.0
Protestants	4.8	5.1	7.5
Muslims	5.2	3.3	8.0
*Other	–	–	–
*No Religion	–	–	–

Note:

* TFR was not computed for these two categories of religion due to the small sample size.

Table 3.2.3 illustrates the relationship between
Religion and TFR in the three provinces. In Nairobi,
Muslims have the highest fertility, a TFR of 5.2
followed by protestants with a TFR of 4.8. Catholics
have the lowest fertility, a TFR of 2.9. Thus Muslim
women have a higher fertility than Christians in
general. This could be due to the fact that they are
associated with less secular education (Henin 1979),
and adhere more strictly to most religious beliefs and
practices. However, it may be noteworthy to point that
some of these beliefs and practice are not necessarily
the outcome of Islamic teachings, but are culture
distortion to what is mentioned in the Koran. Within a
historical perspective, Islam was brought to East
Africa by the Arabs, who have blended it with their own
culture practices. The fact that catholics have a lower
TFR than Protestants cannot be explained by the
religion factor alone. It is possible that there are
other intervening factors. Thus further research may be
necessary before any conclusions can be accurately
drawn.

In Coast province TFR is highest for protestants 5.1.
Muslims have a TFR of 3.3, followed by catholics who

have a TFR of 3.1. The lower TFR of Muslim women at the Coast had been attributed by Henin (1979) to the higher incidence of polygamy.

Western Province, however, shows a different pattern with Catholic and Muslim women having a TFR of 8.0 followed by Protestants who have a TFR of 7.5 . The higher TFR of both the Muslims and Catholics may be due to the fact that these are stricter faiths than the Protestants are thus more opposed to any practice of birth control.

Western Province has a higher TFR for all types of Religion than both Nairobi and Coast Province. Once again this may be due to the differences between a rural/urban setting.

CHAPTER FOUR

Summary and Policy Implications

4.1 Summary

The objective of this study is to determine whether there are differentials in fertility behaviour by 'women's status'. The 'status of women' here is represented by educational attainment and work status. The impact of religion and rural vs. urban seting is also taken into account.

The findings of the study reveals the following:

Firstly: The findings support the research hypothesis i.e. TFR various inversely with educational attainment. The impact, is however, more pronounced after secondary education in all the three provinces:

Nairobi, Coast Province and Western Province. This may be explained by the change in women's attitudes towards their traditional childbearing and childbearing roles with education. A comparison of the three provinces

indicates that Western Province has the highest TFR for all levels of education, which may be due to the impact of a traditional rural vs. modern urban setting on fertility behaviour.

Secondly: Here again the findings lend support to the hypothesis i.e. TFR various according to work status. Women who are not working have a higher TFR than working women in the three provinces. Thus the findings lend support to the maternal role incompatibility hypothesis, which states that: the greater the conflict between working and caring for young children, the more negative the relationship between women's work and fertility . The comparison of the three provinces showed that, once again, TFR is higher for both categories of work status in Western Province than in Nairobi, and Coast Province.

Thirdly: The findings on the association between TFR and type of religion are not consistent. The pattern may have been clear if other variables were controlled for(which is not within the scope of this study). The findings for Western Province, however, do lend support to the hypothesis of this study: namely, that the

stricter faiths such as Catholic and Muslim have a higher TFR than the Protestant. This could be due to stronger opposition to birth control.

4.2 Policy Implications

The findings of this study support the hypothesis that fertility behaviour varies inversely with the 'status of women'. The study, therefore, may have some important policy implications which can assist in achieving Kenya's population objectives.

Some of these policy implications are as follows:

(1) Women's education should be given priority in government policy. Improved access(in terms of both physical access as well as costs of education) to secondary schools will have a profound impact on fertility behaviour.

(2) Granting women better access to employment opportunities and allowing them to advance on the occupational ladder will have an effect on their fertility preferences.

(3) The spread of urbanization to the presently rural areas, and consequently its associated modern lifestyles will achieve the added objective of bringing about the desired change in attitudes towards fertility preferences.

(4) the involvement of all religious bodies in the effort to spread the practice of birth control, inorder to reconcile religious beliefs and population objectives is important in helping to avoid conflicting messages to the masses.

4.3 Recommendations for further research

The limited time and resources assigned to this project has not enabled it to exhaust all facets of the association between fertility and 'status of women'. Thus the following are recommended areas for further research on this topic:

(1) The scope of the problem may be expanded inorder to analyse the relationship between fertility and the 'status of women' in the whole of Kenya. Thus a clearer picture may be revealed.

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(2) Detailed statistical tests can be used to test the strength of the relationship and thus enable researchers to reach more concrete results.

(3) Other indicators of the 'status of women' may be used to test the association between fertility and the "status of women" eg. Health Status.

(4) A breakdown of work status by type of occupation can be another area for further research. It enables a more detailed analysis of differentials in fertility behaviour by type of occupation.

EDUCATION

Nairobi:

No Education

Age Group	Female Population	Birth in the past year	F(i)
15 - 19	3	1	0.3333
20 - 24	8	2	0.25
25 - 29	11	1	0.0909
30 - 34	8	1	0.125
35 - 39	6	1	0.1666
40 - 44	7	0	0
45 - 49	4	0	0
			Total=0.9658

$$\therefore TRF = 5 \times 0.9658 = \underline{4.829}$$

Primary Education

Age Group	Female Population	Birth in the past year	F(i)
15 - 19	64	9	0.1406
20 - 24	66	20	0.3030
25 - 29	43	6	0.1395
30 - 34	32	5	0.1562
35 - 39	24	3	0.125
40 - 44	15	0	0
45 - 49	4	0	0
			Total=0.8643

$$\therefore TFR = 5 \times 0.8643 = \underline{4.3215}$$

Nairobi:

Secondary Education

Age Group	Female Population	Birth in past year	F(i)
15 - 19	46	3	0.0652
20 - 24	64	14	0.2187
25 - 29	50	15	0.3
30 - 34	34	3	0.0882
35 - 39	15	1	0.0666
40 - 44	6	0	0
45 - 49	5	0	0
			Total=0.7387

.. TFR = 5 x 0.7387 = <u>3.6935</u>

Higher Education

Age Group	Female Population	Birth in past year	F(i)
15 - 19	–	0	0
20 - 24	1	0	0
25 - 29	1	0	0
30 - 34	1	0	0
35 - 39	1	0	0
40 - 44	3	0	0
45 - 49	1	0	0

Coast Province

No Education

Age Group	Female Population	Birth in past year	F(i)
15 – 19	16	1	0.0625
20 – 24	24	8	0.3333
25 – 29	38	6	0.1578
30 – 34	58	14	0.2413
35 – 39	49	7	0.1428
40 – 44	27	1	0.0370
45 – 49	22	1	0.0454
			Total=1.0201

.. TFR = 5 x 1.0201 = <u>5.1005</u>

Primary Education

Age Group	Female Population	Birth in past year	F(i)
15 – 19	51	4	0.0784
20 – 24	45	11	0.2444
25 – 29	29	6	0.2068
30 – 34	16	2	0.125
35 – 39	27	4	0.1481
40 – 44	8	1	0.125
45 – 49	5	0	0
			Total=0.9277

.. TFR = 5 x 0.9277 = <u>4.6385</u>

Coast Province

Secondary Education

Age Group	Female Population	Birth in past year	F(i)
15 - 19	13	0	0
20 - 24	20	6	0.3
25 - 29	18	2	0.1111
30 - 34	17	3	0.1764
35 - 39	2	0	0
40 - 44	2	0	0
45 - 49	1	0	0
			Total=0.5875

$$.. TFR = 5 \times 0.5875 = \underline{2.9375}$$

Higher Education

Age Group	Female Population	Birth in past year	F(i)
15 - 19	-	-	-
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	1	0	0
40 - 44	-	-	-
45 - 49	-	-	

Western Province

No Education

Age Group	Female Population	Birth in past year	F(i)
15 - 19	14	4	0.2857
20 - 24	11	2	0.1818
25 - 29	30	10	0.3333
30 - 34	57	30	0.5263
35 - 39	44	7	0.1590
40 - 44	54	5	0.0925
45 - 49	34	0	0
			Total=1.5786

.. TFR = 5 x 1.5786 = 7.893

Primary Education

Age Group	Female Population	Birth in past year	F(i)
15 - 19	144	21	0.1458
20 - 24	105	43	0.4095
25 - 29	76	29	0.3815
30 - 34	59	22	0.3728
35 - 39	51	19	0.3725
40 - 44	38	3	0.0789
45 - 49	32	0	0
			Total=1.761

.. TFR = 5 x 1.761 = 8.805

Western Province

Secondary Education

Age Group	Female Population	Birth in past year	F(i)
15 - 19	40	5	0.125
20 - 24	59	9	0.1525
25 - 29	55	19	0.3454
30 - 34	21	5	0.2380
35 - 39	4	0	0
40 - 44	10	1	0.1
45 - 49	–	–	–
			Total=0.9609

.. TFR = 5 × 0.9609 = <u>4.8045</u>

Higher Education

Age Group	Female Population	Birth in past year	F(i)
15 - 19	–	–	–
20 - 24	–	–	–
25 - 29	1	1	1
30 - 34	–	–	–
35 - 39	–	–	–
40 - 44	–	–	–
45 - 49	–	–	–

WORK STATUS

Nairobi: Work Status

Not Working

Age Group	Female Population	Birth in past year	F(i)
15 - 19	93	12	0.1290
20 - 24	104	30	0.2884
25 - 29	67	17	0.2537
30 - 34	41	5	0.1219
35 - 39	26	5	0.1923
40 - 44	17	0	0
45 - 49	9	0	0
			Total=0.9853

$$.. \text{TFR} = 5 \times 0.9853 = \underline{4.9265}$$

Working

Age Group	Female Population	Birth in past year	F(i)
15 - 19	19	0	0
20 - 24	33	5	0.1515
25 - 29	36	6	0.1666
30 - 34	32	4	0.125
35 - 39	21	1	0.0476
40 - 44	14	0	0
45 - 49	5	0	0
			Total=0.4907

$$.. \text{TFR} = 5 \times 0.4907 = \underline{2.4535}$$

Coast Province: Work Status

Not Working

Age Group	Female Population	Birth in past year	F(i)
15 - 19	74	5	0.0675
20 - 24	79	24	0.3037
25 - 29	77	14	0.1818
30 - 34	74	16	0.2162
35 - 39	71	11	0.1549
40 - 44	33	1	0.0303
45 - 49	24	1	0.0416
			Total=0.996

$$\therefore \text{TFR} = 5 \times 0.996 = \underline{4.98}$$

Working

Age Group	Female Population	Birth in past year	F(i)
15 - 19	6	0	0
20 - 24	8	1	0.125
25 - 29	8	1	0.125
30 - 34	15	2	0.1333
35 - 39	8	0	0
40 - 44	2	0	0
45 - 49	3	0	0
			Total=0.3833

$$\therefore \text{TFR} = 5 \times 0.3833 = \underline{1.9165}$$

Western Province: Work Status

Not Working

Age Group	Female Population	Birth in past year	F(i)
15 - 19	191	30	0.1570
20 - 24	161	51	0.3167
25 - 29	138	53	0.3840
30 - 34	120	54	0.45
35 - 39	91	25	0.2747
40 - 44	94	9	0.0957
45 - 49	60	0	0
			Total=1.6781

.. TFR = 5 x 1.6781 = <u>8.3905</u>

Working

Age Group	Female Population	Birth in past year	F(i)
15 - 19	8	0	0
20 - 24	11	2	0.1818
25 - 29	22	6	0.2727
30 - 34	16	4	0.25
35 - 39	9	2	0.2222
40 - 44	7	0	0
45 - 49	5	0	0
			Total=0.9267

.. TFR = 5 x 0.9267 = <u>4.6335</u>

RELIGION

Nairobi: Religion

Catholic

Age Group	Female Population	Birth in past year	F(i)
15 - 19	44	5	0.1136
20 - 24	51	11	0.2156
25 - 29	35	5	0.1428
30 - 34	25	1	0.04
35 - 39	14	1	0.0714
40 - 44	12	0	0
45 - 49	4	0	0
			Total=0.5834

.. TFR = 5 x 0.5834 = <u>2.917</u>

Protestant

Age Group	Female Population	Birth in past year	F(i)
15 - 19	56	7	0.125
20 - 24	75	22	0.2933
25 - 29	55	12	0.2181
30 - 34	43	7	0.1627
35 - 39	30	5	0.1666
40 - 44	14	0	0
45 - 49	6	0	0
			Total=0.9657

.. TRF = 5 x 0.9657 = <u>4.8285</u>

Muslims

Age Group	Female Population	Birth in past year	F(i)
15 – 19	8	0	0
20 – 24	6	3	0.5
25 – 29	8	3	0.375
30 – 34	6	1	0.1666
35 – 39	2	0	0
40 – 44	3	0	0
45 – 49	1	0	0
			Total=1.0416

$\therefore$ TFR = 5 × 1.0416 = <u>5.208</u>

Others

Age Group	Female Population	Birth in past year	F(i)
15 – 19	4	0	0
20 – 24	5	0	0
25 – 29	5	1	0.2
30 – 34	1	0	0
35 – 39	1	0	0
40 – 44	1	0	0
45 – 49	3	0	0

No Religion

Age Group	Female Population	Birth in past year	F(i)
15 - 19	1	0	0
20 - 24	1	1	1
25 - 29	1	1	1
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	1	0	0
45 - 49	-	-	-

Coast Province

Catholic

Age Group	Female Population	Birth in past year	F(i)
15 - 19	21	1	0.0476
20 - 24	19	8	0.4210
25 - 29	13	1	0.0769
30 - 34	13	1	0.0769
35 - 39	14	0	0
40 - 44	1	0	0
45 - 49	3	0	0
			Total=0.6224

.. TFR = 5 x 0.6224 = 3.112

Protestant

Age Group	Female Population	Birth in past year	F(i)
15 - 19	26	2	0.0769
20 - 24	30	8	0.2666
25 - 29	26	7	0.2692
30 - 34	20	3	0.15
35 - 39	24	4	0.1666
40 - 44	10	1	0.10
45 - 49	5	0	0
			Total=1.0293

.. TFR = 5 x 1.0293 = 5.1465

Muslims

Age Group	Female Population	Birth in past year	F(i)
15 - 19	26	1	0.0384
20 - 24	27	4	0.1481
25 - 29	25	2	0.08
30 - 34	38	8	0.2105
35 - 39	26	5	0.1923
40 - 44	11	0	0
45 - 49	15	0	0
			Total=0.6693

$$\therefore \text{TFR} = 5 \times 0.6693 = \underline{3.3465}$$

Others

Age Group	Female Population	Birth in past year	F(i)
15 - 19	1	0	0
20 - 24	1	1	1
25 - 29	4	0	0
30 - 34	1	0	0
35 - 39	1	0	0
40 - 44	–	–	–
45 - 49	–	–	–

No Religion

Age Group	Female Population	Birth in past year	F(i)
15 - 19	7	1	0.1428
20 - 24	11	3	0.2727
25 - 29	16	4	0.25
30 - 34	20	6	0.3
35 - 39	14	2	0.1428
40 - 44	15	0	0
45 - 49	5	1	0.2

Western Province: Religion

Catholic

Age Group	Female Population	Birth in past year	F(i)
15 - 19	60	13	0.2166
20 - 24	62	14	0.2258
25 - 29	49	14	0.2857
30 - 34	55	29	0.5272
35 - 39	44	10	0.2272
40 - 44	41	5	0.1219
45 - 49	25	0	0
			Total=1.6044

.. TFR = 5 x 1.6044 = <u>8.022</u>

Protestant

Age Group	Female Population	Birth in past year	F(i)
15 - 19	135	17	0.1259
20 - 24	104	36	0.3461
25 - 29	110	44	0.4
30 - 34	81	27	0.3333
35 - 39	54	14	0.2592
40 - 44	59	3	0.0508
45 - 49	39	0	0
			Total=1.5153

.. TFR = 5 x 1.5153 = <u>7.5765</u>

Muslims

Age Group	Female Population	Birth in past year	F(i)
15 - 19	2	0	0
20 - 24	5	3	0.6
25 - 29	2	0	0
30 - 34	0	0	0
35 - 39	1	1	1
40 - 44	0	0	0
45 - 49	1	0	0
			Total=1.6

$$\therefore TFR = 5 \times 1.6 = \underline{8}$$

Others

Age Group	Female Population	Birth in past year	F(i)
15 - 19	-	-	-
20 - 24	2	1	0.5
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	-	-	-

No Religion

Age Group	Female Population	Birth in past year	F(i)
15 - 19	1	0	0
20 - 24	-	-	-
25 - 29	0	0	0
30 - 34	0	0	0
35 - 39	0	0	0
40 - 44	-	-	-
45 - 49	-	-	-

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