Predicting Cohort Fertility in a Traditional Urban Centre: An Example from Ilorin, Nigeria.

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Abstract

This paper presents a model for predicting cohort fertility in a traditional urban community in Ilorin, Nigeria with a view to assessing those factors that are important determinants, given the existing scenario in the unique urban centre. A simple random technique was used to administer 800 questionnaires among the three cohorts of 1970s, 80s and 90s.The study revealed that while the mean number of birth intervals and mean length of birth intervals are decreasing with women's age by cohort, the effect is an increasing fertility level and consequent high population growth in this traditional urban community. This showed that a large proportion of women here still have their first births at prime ages. By giving birth early and presumably with short birth intervals, these women and their children are at a high risk of mortality, given the poor state of health and nutrition available to them. The stepwise multiple regressions show that in all ten cases, five variables were found to be significant at the specified level of 0.05 % entry into the model. These are economic status and income level, age at first birth, migrant status of husbands, accessibility to family planning/health care, education level of husbands. Appropriate recommendations were made accordingly to improve the levels of responsible parenthood overtime.

Key words: Parenthood, Fertility, Women , Community ,Nutrition , economic status.

Introduction.

In the last sixty years we have learnt a lot about fertility, not least about how to measure it, but little of this seems to have trickled down into the mundane world of the forecast. Fertility is the occurrence of live birth and a natural determinant of population, and it is a critical component of population and growth defined as the measured capacity of a population to generate birth (Barrete, 1996, Olorunfemi, 2004). Bourvier and Lao (1975) defined fertility as an 'umbrella term' that includes not only data on children ever born, but on desired and expected family size as well. Desired here implies an ideal family size; and expected is more realistic in that women are especially asked how many children they intend to have. Although population specialists have successfully devised procedures for estimating standard demographic indicators (e.g., levels of fertility and mortality), they have been notably unsuccessful in reaching agreement on the most appropriate way to measure wanted fertility *(ibid)*. The lack of consensus on this issue has hampered progress on validation of competing theories of the fertility transition because measures of family size preferences or wanted fertility are often key factors in those theories (Bongarrts (1990).

Nigeria has experienced high fertility levels over the past decades, despite the introduction of a national policy on population in 1988 which stipulated four children per woman and eighteen years of commencement of childbearing (NPC,2000). The key points of this policy are to improve standard of living, prevent premature deaths among high-risk groups, reduce birth rates through voluntary fertility regulation methods and to promote an even urban-rural population distribution. According to the National Population Commission, (2000:68) Nigerian women will have an average of six children by the end of their reproductive years. However, Nigeria's population is one of the fastest growing in the world; it was ranked the seventh largest in year 2011. The 2006 National census puts the population at 140,003,543, comprising of 68,293,638 females and 71,709,859 males. With an annual growth rate of between 2.6% and 2.9%, Nigeria has a growth potential to become the fifth largest population in the world by year 2050 (U.S. Bureau of Census,2001, Olawepo,2009). It is noted that high fertility for a long period of time leads to relatively young population with high proportion of children and high dependency burden as compared to low fertility population.

In a traditional economy like that of Nigeria, a large number of children may be of economic advantage to the traditional family by increasing the number of available workers. However, in most cases children do not increase production by as much as they consume until a nation develops socially and economically. A high dependency ratio may strain the resources of individual households as children must be supported until they complete their education and secure employment. The problems of rapid population growth, though global in dimension and complex in ramification is especially critical in the developing countries, this is not only because these are precisely the countries are least able to afford the luxury of massive increase in their population.

Today in Nigeria, fertility remains the principal cause of rapid population growth which threatens the already precarious balance between food and population, pressure on available infrastructural facilities, and increase in child labour especially within the traditional setups. A look at our cities today will show a picture of increasing population and rapid child increase in child labour and delinquencies. The traditional nature of Ilorin is seen in the peculiarity and attachment to religion, culture and a mixture of history and traditional norms in the midst of modernization which is rapidly dominating. A close study of Ilorin shows the domineering Islamic religion in the traditional or core regions, the mixture of Yoruba culture with Fulani background, and the increasing non native Christian community. This is further strengthened by the modernization brought in by Western Education, civilization, development and influx of people from different locations in Nigeria (because of its stature as a state capital since 1967) and the subsequent rapid growth of the city.

One of the most useful products modern geography has to offer is the population forecast. Yet overtime, there has been little basic change in the format of the procedure, emphasis is often based on determining the fertility and growth level. The basic questions in this study include what is the level of fertility rate within our urban area especially in the study area? Are there any significant differences in fertility among the cohorts of women population in the study area? What are the factors determining fertility levels among women in a traditional society like the study area? The aim of this study is therefore two folds. First, it is to assess the pattern of fertility among women cohorts in the study area with a view to obtaining the mean age fertility for selected cohorts. Second, it is to assess the factors that can affect or determine fertility with a view to predict the growth of population in similar communities like ours in Nigeria.

It must be noted that in a country like Nigeria where emphasis is laid on becoming one of the twenty most developed economies by year 2020, population growth especially in the traditional areas, has to be known and probably checked. Thus, the mainstay of the fertility forecast is likely to be on the increase to be the extrapolation of demographic variables that will guide towards a stable growth and development.

Cohort Fertility, Wanted Fertility and Socio-Economic Development.

A cohort is defined as a group of persons who jointly experience a series of specific events over a period of time (Ryder, 1990). Cohort fertility therefore refers to the fertility of the same woman at successive ages. Women born during a twelve month period comprise a birth cohort. Birth cohorts of women is measured by central birth rates which represent the number of births occurring in women of an exact age divided by the number of women of that age. Cumulative birth rates are sums of central birth rates for specified cohorts and shows the number of children ever born up to the indicated age. Jones (1990) indicated that cohort analysis proceeds on the assumption that rates at various stages of the reproductive period are not isolated in reality, but strongly influence one another. In other words, it tries to make these relations explicit. The most common ways of identifying groups of women studied in cohort analysis are by the year of their birth and the year of their first marriage.

According to Bongaarts (1990:487), the desired family size is an important aspect in measuring wanted fertility and a number of direct and indirect indicators can be derived from responses to questions on reproductive responses. The objectives of such questions is to measure the demand for children a woman would choose to have at the time of the survey, based on the costs and benefits of childbearing and with complete control over a woman's fertility. In reality, couples do not have perfect reproductive control, hence even under perfect family planning practice, unwanted birth still occur worldwide. Results from fertility studies have shown that the proportion of wanted fertility varies among different populations, depending on economic status, culture and education among others *(ibid)*.

There are other indications that there are strong relationships between fertility and economic development of any nation. For example, the increase in fertility rate often leads to rapid growth of population, which is affecting the ability of the state to achieve its social and economic development goals.

On one hand, population growth contributes to long run resources degradation and cost falls on society as a whole, not just on those making child bearing decision. On the other hand, high fertility rate can impose burdens on a growing nation as could be seen in those countries with high rate of population growth, especially in the developing nations. Eberstadt (2000) reported that year 2000 concluded a century of utterly unprecedented population change, an abrupt dramatic departure from experiences of the past. Yet it is likely that development in the 21st century will unfold in ways that surprise even battle tested demographers who think they are beyond surprises.

It is worthy of note that studies have shown that many countries of the world experiencing rapid declines in fertility were simultaneously undergoing rapid economic growth, but such growth appears to be neither necessary nor efficient to ensure such declines. There have also been wide variations in levels and growth rates of per capita income, but there may be other indicators of social development according to which they differ less sharply (Jones, 1990:507).

The Study Area.

This study focuses on Ilorin, the capital city of Kwara State, Nigeria. Ilorin lies on Longitude 4.15E and between Latitudes 4.35^0 N and 8.30^0N of the Equator, in the Middle Belt of the country as shown in Figure 1. The population of Ilorin in 1952 was put at 157,552, this rose to 208,546 in 1963 and was estimated to be 477,564 in 1980 (Kwara State, 1980). The 1991 population census showed that the city had a population of 532,088 (Emielu, 1991) while the population rose to 777,667 in 2006 (NPC, 2006,(Atomode,2009). Apart from the indigenous people who are predominantly Yoruba and the Yoruba speaking Fulanis who live in the old residential districts of the town, there are other people of various tribes and ethnic groups such as the Hausas, Igbos, Nupe, Barubas, Igbominas Okun-Yorubas among others, who are immigrants and who settle in the new and expanded areas of the town (Atomode, 2009:25). Thus, the city can be divided into two sectors: the core-traditional areas and the new modern areas. Ilorin is traditional in its entire entirety because of the domineering culture of its people that place core traditions, religion and old historical traits over every aspects of life.

While the older traditional sector is poorly planned and occupied largely by the indigenes and low income earners who live in congested muddy buildings, the new or modern sector is better planned and inhabits the immigrants and scanty members of the traditional community who are highly placed and educated. The railway divides the town into two with the New Ilorin to the East and old Ilorin to the West (Ogunsanya, 1984, Olawepo and Ahmed 1999, Atomode 2009:26).The work of Oyebanji,(1993) and Olorunfemi, (1995) indicated that Most of the economic activities found in Ilorin are those typical of a Yoruba town. The basis of these activities is still the agricultural hinterland surrounding the town which has however been modified recently by the development of an increasing commercial oriented economy. Women majorly are involved in petty trading while a large proportion of the women in the traditional cores are mainly full house wives with a large proportion of them with little or no education. Modernization however is changing the trends of events including education, culture and housing among others.

Method of Data Collection and Analytical frameworks.

The method employed in gathering the necessary information for achieving the aim and objectives of this study include questionnaire administration and personal interview. For this purpose, women of ages 15-44 years of diverse marital statuses were the focus because they are easier to contact and would provide more accurate information than men on fertility. The Women were grouped into three cohorts by year of birth. The age of women that were selected are between age cohort 1971-1980, 1981-1990, and 1991-2000. The ages of these women in 2010 were between 35-44, 25-34, and 15-24.

In selecting the respondents, a systematic random selection was adopted so as to have a proper representative, unbiased data and to enhance wider coverage of the study area. The study area consists of 20 wards, and from the frame, the total population of adult female in Ilorin was put at 195,412 based on the 1991 census (NPC, 2000). A purposeful sampling size of 40 respondents within the ages of the prescribed cohorts was chosen from the 20 wards making up Ilorin city. This is because the nature of information required relating to these categories of women are peculiar. Apart from this, the researchers are used to the peculiarity of the women in the study area in term of western Education without which the gathering of information would be problematic. Moreover, this size is judged ideal for the classes of women needed for information on fertility study. A total of 800 women were thus interviewed through the use of questionnaire administration.

Various descriptive and inferential statistics were used to present the analysis in logical order. They include simple tabulation and cross tabulation and percentages. Apart from these, Stepwise multiple Regression was used to access the factors determining fertility levels in the study area. A regression model is therefore presented in the form of a proposed equation to predict fertility on the basis of past studies and findings.. For the purpose of this study, our equation would be written as:

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 \ldots\ldots\ldots\ldots\ldots\ldots + b_n x_{n+} e$$

Where Y is the cumulative fertility of the women in the study area,

a is constant and explain the intercept of the flow, b1-----bn are the regression co-efficient, while e represents the error terms. In the same vein, X1 ---X10 are the dependent variables defined as follows:

X1 = Age at first marriage,

X2 = Age at first birth,

X3 = Age of Marriage,

X4 = Accessibility to family planning/health Services,

X5 = Interval between birth.

X6 = Education level of women

X7 = Economic Status/income,

X8 = Number of live birth

X9 = Migrant Status of Husband and,

X10= Education level of husband.

Discussion and Analysis.

(i) General Characteristics of Respondents.

As earlier indicated, this studies involved selection of women of different age groups and the cohorts were selected across the 20 traditional Wards in the Metropolis, and these were studied within a period of three months. Our respondents' ages range from 15to 44 years. The 15 year old adolescents were included in this study because of a high probability of early marriage among females occasionally seen among Muslims and indigenes from the study area. About 32.65% of the respondents are within ages 14-24 years, 50.51% are within the age 25-33, while 16.96% are within the age 35-44 respectively as shown in table 1.. These are the active reproductive age group within the system. From this, the highest group with the highest proportion is within the age 25-33, this happens to be the most active in terms of child bearing The implication of this distribution is that there is tendency for a high fertility rate in the coming years. Table. 1 Cohort Years of Respondents in Percentages.

Cohort Years	No of Respondents	Percentages
1970s	134	16.96 %
1980s	399	50.51 %
1990s	257	32.53%
Total	800	100 %

Source ; Authors' Research

In the same vein, a few proportions of the sampled women have access to education. Of these, about 35.82% attended tertiary institutions, 32.41% had secondary education while 18.23% had primary education,18.23% had Quranic education and they can read and write in local languages. The remaining 5.8% had no form of formal education and most of them in this group are full time house wives. This distribution includes non indigenous population especially with those who have access to tertiary education. The role of education in fertility levels and family life education could not be over emphasized because it determines a lot when it comes to decision making about family issues as well as family planning. Similarly, 52.53% of the respondents are Moslems, especially those within the traditional Wards of Ogidi, Magaji Okaka, Zarumi, Balogun Fulani and Ubandawaki among others. The other 46.71% are Christians and they are mostly found around Sabon-Geri, Badari, Adewole, and the new developed areas at the fringe of the Metropolis. This trend is expected, as Ilorin has always been regarded as pre-dominantly Muslim community, but now sandwiched by a large proportion of Christian community. The remaining 0.71% are probably traditional worshipers. About 84% of the respondents are married, 1.6% are widows, 7.4% are separated or divorced while the remaining 4.3% are single parents. Evidence from this study indicates further that the proportion of single mothers decreases with cohort ageing and the issue of early marriage is common especially among the indigenous population.

When asked about age of their first marriage, about half of 15-22 year old women in the traditional core areas got married between ages 14-20., thus a large proportion of birth to teenage women took place within marriage union, because it is common to find the youngsters being married while still in schools in most cases.

(ii) Fertility Levels Among Cohorts of Women.

Generally, the relationships between fertility levels and the growth of population is positive especially in developing world where there has been consistent increase in fertility level s in the last few decades.

(a) Age at first birth.

Child bearing among the women surveyed shows that there are variations among the different cohorts. However, the general trend in Ilorin shows a highly related fertility levels. In all, about 72.29% of our respondents had their first birth between age 20-29, while those that are between ages 15-19 when they had their first child birth are just about 5.32%. and the remaining 22.39% had their first child birth when they were 30 years and above. This still shows that a large proportion of women here still have their first births at prime ages. By giving birth early and presumably with short birth intervals, these women and their children are at a high risk of mortality, given the poor state of health and nutrition available to them. It was further observed that, about a quarter of all the first births to teenagers in the study area took place within marriage union. This is because it is still common to find the youngsters being married while still in school especially in the core traditional areas of Zarumi, Mogaji Okaka, Ubandawaki, Balogun Fulani and Balogun Gambari among others. This trend is continuous because of the domineering Islamic culture in these places that are similar to what happens in the Northern parts of the country.

Table 2 shows the mean fertility age among the different cohorts in the study area, and this may be typical of other traditional urban communities especially in the middle belt and northern parts of the country. The table further shows that these values for the first cohort in the series (1970) for the cohort with the local peak age of fertility (1980), for the cohort with local trough age of fertility and incidentally the last (1990), and which has the least mean fertility age. Although a more elaborate partitioning is feasible, the variation is unique especially for the purpose of making a forecast.

Table 2. Components of the Mean age of fertility among cohorts 1970-1990

Cohort	Mean Fertility age	Mean age at 1st birth	Mean No of birth Intervals	Mean length of birth interval
1970s	26.5	25	2.0	3.8
1980s	27.9	24	1.9	3.2
1990s	21.4	19	1.6	2.5

Source: Authors' Research.

Further more, we can see two episodes during which the mean age of fertility is rising-at the beginning of the series and at the end. In both, the effect of substantial increases in the two tempo components may gradually lead to the increased growth rate being experienced generally in the area. While the mean number of birth intervals and mean length of birth intervals are decreasing, the effect would be an increasing fertility level and consequent high population growth, and probably a change in cohort size which may also lead to a change in cohort fertility.

(b) Desired family size and wanted fertility.

The best known and most widely used preference indicator of wanted fertility is the desired family size. Questions were raised during this survey as to the number of desired children by the women in each cohort. The objective of this kind of question is to measure the demand for children, that is, the number of children a woman would choose to have at the time of the survey, all things being equal. It should be noted that the proportion of wanted fertility varies widely among the cohorts examined here by locations. This ranges from about 85% in the core traditional areas of Oke ogun, Ogidi, Oloje and Alanamu to about 58% in Adewole, Badari,, and Sabo-ngeri and, as low as 50 % in the GRA and new developed areas mostly occupied by the Christians and others from the other parts of the country.

The desire for family size formation also varies according to cultural differences. For example, fertility is found to be high among Muslims in the study area compared to those of other faith. Among this group, the percentage distribution of those preferring 3-4 children was 52.5%, 1-2 children (22.5%), 5-6 children (17.95%) and above 6 was 17.95%. A large proportion of our respondents still felt that children are gifts from God, and are considered marks of social status and thus would want them as God gives.

Table 3 No of children per Household and desired/Actual Birth among the chosen cohorts

Cohort	No of children for Ideal Household					Total fertility	Wanted fertility
	1-2	3-4	5-6	above 6	mean		
1970s	22	87	5	20	6	425	804
1980s	95	190	73	42	4.5	2723	1800
1990s	61	138	58	-	3.4	101	189
Total	178 (22.5%)	415 (52.5)	136 (17.7%)	62 (17.95%)	-	3247	2793

Source : Authors' Research

Table 3 further shows that there are discrepancies across board among the cohorts. For example in all cases, the average number of children decreases from 6 among the cohort of 1970s, to 4.5 and 3.4 in the 1980s and 1990s respectively. This shows that there is a downward trend from the 1970s to the present times; this also cumulates to decreasing fertility in those years. The same trend is observed when we compare the desired wanted fertility with the total fertility in those years and cohorts. Even though the wanted fertility in these years is increasing compared to the actual fertility, the rate is also decreasing. The reason might be the increase in the awareness rate, more acceptability of family planning among the people, increased education and the current economic recession which has compelled more people to having lower family size and delayed marriages among the youths.

(c) Cohort births by sex and cumulative fertility.

A look at the general number of cohort birth and sex between the cohorts over the years also shows an interesting trend. From the survey, the total number of live births among the studied cohorts was estimated to be 546 (285 males and 261 females) for cohort 1970, 2200 (1020 males,1180 females) was recorded for cohort 1980, while 501 (256 males and 245 females) was recorded for 1990 cohorts as shown in table 4. In all, this means that 3,247 deliveries were recorded from 800 sampled women as shown on Table 4. Apart from this 3200 "live" (98.5%), 47 still births (1.5%) were also recorded within the same time. This shows that the occurrence of "still births" had a very low prominence compared to the occurrence of live births. This could be as a result of increased accessibility to medical facilities over the years.   The presence of the teaching hospital in Ilorin and the input of the State government into the health sector in the city had brought improved status to the health care facilities in the community. Apart from this, the State Government had established standard cottage hospitals at

Table 4 Percentage Distribution of Total Number of Cohort births by Sex

Cohort	Males	Females	Total
1970	285	261	546
1980	1020	1180	2200
1990	256	245	501
Total	1561 (48.07)	1686 (51.92)	3247

Source Authors' Research

Ajikobi, GRA, Adewole, and Sobi, there is establishment of Children Specialist Hospital at Balogun Fulani ward, where children and pregnant women are given free medical attention. The cumulative fertility frequency is to show the level of a population at a given point in time. The number of children ever born to the women in a cohort is often a good indicator. It was observed that the cumulative fertility for women who married at ages under 19 were considerably higher than those who married at age 20 and above. When asked to indicate the number of children ever born by our respondents, their answers were interesting and these are summarized as indicated on table 5. The cumulative fertility among the three cohort was totaled 3,247. In the same vein, there is a declining total fertility from the cohorts 1970s and in the 1990s. This shows that there are higher fertility trends among the cohort of the 1980s, i.e those that are within the ages 20-29 than those of the earlier years. The reason for this high trend could be due to the experienced improved living resulting from the economic growth in the 1980s nation wide. The favourable economic climate probably encouraged an early entry into responsible parenthood and probably had a strong impact on the lives of ordinary people, more girls were also in schools.

Table 5 Cumulative No of Birth of women from 1970s-1990s

Cohorts	Age	Frequency	Cumulative Birth
1990s	15-19	501	501
1980s	20-29	2200	2701
1970s	30 and above-	546	3247

Source: Authors' Research.

Improved accessibility to medical facilities also may increase the survival of infants and young children, however decline fertility was experienced by the cohorts of 1990s and those of 1970 and this must be seen as advantageous. The implication of this is that a declining fertility currently being experienced as opposed to those of the earlier years may have positive effect on the peoples economy, accessibility to public goods and services as well as a future declining population growth if the trend is maintained across board in the society.

Factors affecting Cohort Fertility in Ilorin.

Having discussed the structure of fertility in different cohorts among women in Ilorin, a further step was taken to assess the determinants of fertility. This will help in predicting fertility of the different cohorts over the years as well as projecting same in different areas of the urban community. Worldwide, there have been variations in those factors that are regarded as determinants. Thus as explained earlier, ten of such variables were identified. Stepwise multiple regression analysis was applied in order to identify the factors and the weight they exert on the total variance in the cumulative fertility levels in general. The dependent variable (Y) was the cumulative fertility for the different cohorts, while the independent variables were the ten factors already identified.

In all ten cases, five variables were found to be significant at the specified level of 0.05 % entry into the model. These are x7, (economic status/income level), x2, (age at first birth) x9 migrant status of husbands, x4 (accessibility to family planning/health care), and x10 (education level of husbands). The Stepwise Multiple Regressions on Table 6 suggest several findings. First, the economic status of husbands and income levels appears to be the best predictor of fertility in the study area, with a correlation co efficient of 0.9013 and a co efficient determination of 81.23. This indicates that about 81.23% difference in fertility level is associated with differences in economic status and income levels. A good understanding of this trend is that entry into responsible parenthood is conditional on achieving some income threshold. The first favourable condition and economic change that were experienced in the mid eighties encouraged an earlier entry into parenthood, and thus an increased exposure to risk of an intended child. It is also interesting to note that in the traditional urban locations income is an important determinant of the desired number of children and ability to cater for them.

However, it was noticed that in the core traditional areas like Ogidi, Alanamu, Gambari, Badari and Magaji Okaka Wards, women that are in low income and unemployed group have higher fertility levels. This is because majority of them are fulltime housewives who depended on their spouses income and thus have no control over their fertility levels. Here, the economic status of the husband plays a dominant role, and the direct cost of child bearing is thus influenced by the demand for children among the average working class. Similarly x2 (age of women at first birth) also appeared to be very important with a joint correlation co-efficient of 0.9156 and a co efficient of determination of 83.82%. This suggests that about 83.82% variation in fertility level is explained by the differences in economic status and age of women at first birth. An additional 2.60% explanation is however offered by age of women at first birth. Probably the cultural and religious background of the women account for this influence. It is a known fact that Islam in this part of the world encourages early marriage among the people. Women who marry early definitely would have higher cumulative fertility than those who marry late. This is because they would have longer period of exposure than those who marry late.

Table.6 Stepwise Multiple Regression: determinants of Fertility levels.

	Parameter Estimate	Standard Error	R	R^2	Cumulative %	Additional %	T test
Intercept	766.02	5.5311	_	_	_	_	_
X7	4.3140	2.2170	0.9013	0.8123	81.23	_	1.638
X2	0.7501	1.4580	0.9156	0.8383	83.83	2.60	0.672
X9	1.3826	1.1211	0.9213	0.8488	84.88	1.05	0.9822
X4	2.5201	0.6702	0..9249	0.8554	85.54	0.66	1.022
X10	0.3211	0.0648	0.9317	0.8682	86.82	0.52	-0.104

Source: Authors' Research

Overall, marriage before age 20 is less common than it was generation ago; however girls still marry early in this part of the country. This has also drawn near age at first birth. Similarly, there are closeness between age at first marriage and age at first birth. 42% of the women in our study selection married shortly before they were 20, especially in the traditional core locations at Okaka, Ogidi, Alanamu and Magaji Are to mention a few. In the same vein, X9 (migrant status of husband) also appears to be another next important factor in predicting fertility in the study area with a combined correlation of r=0.9213, and a co efficient of determination of 84.88%.

This indicates that about 84.88% variation of the three variables is jointly associated with difference in fertility in this part of the world. This factor however added a mere 1.05% to the two earlier discussed i.e. income and age of women at first birth. In the case of the migrant status of husbands, this has a positive effect on fertility of women that are staying together with their husbands. Those that stay together have a higher propensity to have children and care for these children to keep them alive than those that are not staying together. This should not sound strange because migration is a salient feature of the social life of developing countries especially among itinerary traders who are majorly drivers, butchers. They may also be those that settle in northern part of the country who normally travel with the younger wife, leaving others in their home base. On the one hand, migrant husbands are acknowledged to be new and often less integrated residents. On the other hand, they are generally highly motivated individuals with close family relationship once they are around either during the 'Sallah breaks' or public holidays, whish are mostly spent at the home base.

X_4 (accessibility to health care and family planning) is also a very good predictor of fertility level among the chosen cohorts with a joint correlation of 0.9249 and a joint co-efficient determination of 85.54%. This means about 85.54% variation in fertility levels among the chosen cohorts is jointly explained by the earlier three variables (income, age of women at first birth, and migrant status of husbands) and accessibility to health care and family planning. The accessibility factor however added about 0.66% to the existing variation. This may appear low in the context of the national growth rate, but we must remember that this is a predominantly Muslim community, especially the so called core and traditional areas of Ilorin. Even though health care facilities are available (such as a University Teaching hospital and three general hospitals and numerous private clinics) accessibility is still low in the core areas. Accessibility to health care facilities and family planning reduce high risks and infant maternal mortality, but still in this case is attributed to the increasing concentration of live birth among women of more favourable age. The last significant factor predicting fertility among the chosen cohorts is X_{10} (educational level of husbands) with a joint correlation of 0.8682 and a joint co efficient determination of 86.82%. Education of the husband is an important factor, and it was discovered that fertility levels correlate positively with the fertility level. The reason is that those who have access to education are also the same set of people that have access to health care facilities and planning. Incidentally, mothers' educational status is also important here, but because by the peoples' culture, men decides the time and number of children a household may decide to have.

In all, for the whole area, the five variables accounted for about 86.82% of the variance in predicting fertility levels among different cohorts, while the remaining five variables are not significant in predicting the levels of fertility; their co-efficients are too low to offer meaningful explanation and contribution into the varied fertility levels. Our regression equation can thus be written as:

$$Y = 766.02 + 4.3140X_7 + 0.7502X_2 + 1.3826X_9 + 2.5201X_4 + 0.3211X_{10}$$
RES=86.82% SE =5.5311

The implication of this is that in predicting fertility levels in a traditional urban community like Ilorin, the issues of economic status, age at first birth, improved health care facilities with family life education, migrant status of husbands and educational status of husbands would play dominant roles. This is because all these variables are positively related to fertility levels. In order to predict or control fertility levels therefore, effort could be diverted towards the improvement of living standard, encouraging responsible parenthood that would encourage mature marriage and improvement of accessibility to health care facilities and family planning acceptability. Other predictors are improvement of education and staying together of husbands and wives and having mutual relationship that would encourage child bearing and exerting family life education as well as encouraging responsible parenthood.

Conclusion.

This study sought to evaluate the salient features of fertility among cohorts of women in Ilorin Nigeria, with a view to examining those factors affecting the fertility levels. In selecting the respondents, a systematic random selection was adopted so as to have a proper representative, unbiased data and to enhance wider coverage of the study area. A purposive sampling size of 40 respondents within the ages of the prescribed cohorts was chosen from the 20 wards making up Ilorin city. The results showed that while the mean number of birth intervals and mean length of birth intervals are decreasing with women's age by cohort, the effect is an increasing fertility level and consequent high population growth in this traditional urban community.

This showed that a large proportion of women here still have their first births at prime ages. By giving birth early and presumably with short birth intervals, these women and their children are at a high risk of mortality, given the poor state of health and nutrition available to them. It was further observed that, about a quarter of all the first births to teenagers in the study area took place within marriage union, meaning that a large proportion married early. Overall, marriage before age 20 is less common than it was generation ago; however girls still marry early in this part of the country. Similarly, cumulative fertility is high with consequently increasing postulated growth among the cohorts with variations by locations. The culture of the people and the antecedent influence of modernization are however changing the trend gradually. The stepwise multiple regressions also showed that in all ten cases, five variables were found to be significant at the specified level of 0.05 % entry into the model. These are x7, (economic status and income level), x2, age at first birth) x9 migrant status of husbands, x4 (accessibility to family planning/health care), and x10 (education level of husbands). In all, for the whole area, the five variables accounted for about 86.82% of the variance in predicting fertility levels among different cohort.

The implication of these is that in predicting fertility levels in a traditional urban community like Ilorin, the issues of economic status, age at first birth, improved health care facilities with family life education, migrant status of husbands and educational status of husbands would play dominant roles. For effective responsible parenthood and towards a declining fertility trends, family life education should be encouraged among the people, especially in a way to improve accessibility to medical facilities. The issue of girl-child education should also be given priority at the traditional level to increase age at first birth and marriages among the incoming generation. This will likely improve the health status of women when they reach the age of marriage and their economic status would definitely be improved upon when their education is given prominent attention.

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