EDUCATION, PLACE OF RESIDENCE AND FERTILITY DIFFERENTIALS AMONG WOMEN IN NIGERIA

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ABSTRACT
Fertility is one of the major factors that affect population growth in every society in the world. Variation in fertility performance however, creates differentials in fertility among women of childbearing age. This paper focuses on the influence of education and place of residence on fertility differential among women in Nigeria. The paper also examines the fertility differentials based on educational attainment of women all over the country which is found to be obvious that women with high level of education tend to have lower fertility than their counterparts. The paper also looked into fertility differentials in Nigeria generally, and the specific factors that are responsible for the differential in fertility of women between the six geopolitical zones in the country. The study reveals that both education and place of residence play a significance role in residential variation as well as variation among women of the same residence in their fertility performance. The study recommended that, adequate and proper fertility policy formulation and implementation as well as more private sector involvement in the campaign for the use of fertility control measures, will regulate the fertility of women and will reduce population growth in Nigeria.

INTRODUCTION
The rapid growth of population in Nigeria is an issue of immense concern given the scarce resources of the society (Ushie, 2009). Significant improvement in the standard of living in Africa would remain a mirage unless population growth is slowed. “On the current trends, Africa will increasingly be unable to feed its children and find jobs for its school leavers” (World Bank, 1989). In spite of the warning, fertility continues to grow and at the same time, the level of mortality decreases significantly in response to the advances in medicine and nutritional intake. Consequently, the quality of the population in terms of education, jobs, medical provision and ratio of policemen to citizens, among others, is affected. Even in the light of this grim situation, the fertility rate in Nigeria generally remains above six children per woman; the trend is even higher among rural women. The explanation for such differential fertility in terms of spatial consideration has presented a challenge of enormous dimension (Ushie, 2009).

Fertility is one of the three key variables in demography that concerns with the study of the actual capability and ability of a woman to give birth. In other words, fertility unlike fecundity (the biological potentials), is affected by a combination of both biological and social factors (e.g. environment, nutrition e.t.c) that have a tremendous effect on the ability of a woman to conceive, sustain the pregnancy as well as successful parturition. The biological capability is a process which is influenced by certain mechanism, more specifically, variables that influence sexual activity, the likelihood of conception and the likelihood of conception results in live birth (Davis and Blake, 1956). Fertility may be considered as an irreversible, time–limited sequence, because women are biologically restricted to having children only between menarche and menopause. This means fertility is not a life–time phenomenon, it occurs within a specific period called (reproductive age) which usually starts from 15 to 49 years (Poston and Miclin, 2005).
Human fertility therefore, has attracted great attention. In fact, the largest coordinated social science research efforts in history (i.e World Fertility Surveys and Demographic Health Surveys) have had fertility as their focus. Motivations for this concern results from the important and wide ranging consequences of fertility and fertility change. Fertility levels are key components of population change and have been historically, the component most difficult to predict (Bongaarts and Bulatao, 2000).

A fertility differential simply refers to the variation in fertility of different groups or classes in the population. It is imperative to note that fertility levels and patterns vary among adolescents all over the world especially with respect to their marital status, place of residence, educational level and age at first marriage. In sub-Saharan Africa, it has been established that adolescents in rural areas register high levels of fertility than those in urban areas, while those with more education tend to have lower levels of fertility (Oyefara, undated). Brazil’s national fertility data show that the proportional contribution of adolescent fertility (among women aged 15-19 years) to the overall fertility rate (among women aged 15-44 years) has been increasing over time as stated earlier.

Also, Fertility differentials among families can be caused by the value people attached to children. In other words, the cost – benefit calculations have a large effect on peoples decisions regarding their family size. This therefore means that, desire to have small or large number of children brings about fertility differentials among families. This paper however, will focus on level of educational attainment and place of residence as factors that can lead to fertility differential.

**FERTILITY DIFFERENTIALS IN NIGERIA**

Many researches have shown that not all groups reproduce at the same rate. These differences are as a result of various factors. In sub-Saharan Africa for instance, findings from DHS show that desired family size decreased significantly. Two –third of the countries in this area have fertility decline with lower child mortality and higher education for women [(Kirk and Pillet, 1998) cited in Kamla – Raj 2005].

**Factors Responsible for Fertility Differentials**

By and large, fertility differentials occur as a result of a number of factors which influence exposure to the risk of conception and the ability of a woman to give birth. This differential among population subgroups and changes in fertility over time can be traced to one or more of the proximate determinants of fertility. That is, the variables that influence exposure to the risk of conception and childbearing. These factors together determine the pace or frequency of reproduction which in turn affect the level of fertility. Among these proximate determinants, the most important one that can cause fertility differentials is **Contraceptive use**. Some others include economic considerations, socio-cultural factors, desire for children e.t.c. (Oyefara, undated).

This corroborate the findings of Aynalem Adugna (un dated ), though, he categorizes these factors in to direct and indirect. He further divided them into two; underlying economic factors and fecundity, and proximate (intermediate) determinants. According to him, these socioeconomic factors include education, place of residence and desire for family size among others. The fecundity however, is talking about the ability (biological) of a woman to give birth to a live child. These factors he refers to them as the direct determinants of fertility. On the other hand, the proximate determinants (intermediate) variable include age at marriage, contraceptive use, prevalence of induced abortion, postpartum infecundability, spontaneous intrauterine mortality and permanent sterility are the indirect factors that determine fertility differentials among women of sub-groups.

**Rural and Urban Differentials**

Andorka (1978), Li and Wang (1994) and Findley (2005) characterized the relationship between fertility behaviour and place of residence as having a direct linkage. There is a fairly consistent correlation between urban or rural trait of the place of residence and fertility. The place of residence has a property of natural or manmade environment. On the other hand, the trait in rural area is determined by families living in relatively small apartment houses. Andorka (1978) argue that this ecological characteristic of urban-rural differential is also connected with different monetary costs and efforts necessary for raising and educating children that are much greater in urban than in the rural areas.

Mackensen (1982), posit that, one general theory of fertility that could adequately explain fertility behaviour in all societies and at all periods of time is neither possible nor justifiable. He is convinced that for this reason, every explanation, observation and research of fertility behaviour like any other social behaviour
should proceed from the concept of specific structural and cultural characteristics of each society which is the product of certain historical processes. Similarly, Hoffman-Novoting (1987) cited in Ushie M.A et.al (2011) asserts that fertility behaviour of an individual is connected with structural and cultural characteristics of his/her micro and macro social environment. Boyle (2003) also stressed the importance of geographical variations in place or context in understanding fertility decision-making of individuals.

Cernic-Istenic and Kveder (2008), also cited in Ushie M.A et.al (2011), posits that fertility behaviour of individuals is closely linked with economic and social characteristics of their life settings. The improved communication links among urban and rural areas, the entire societies became increasingly urbanized, “infected” with urban values and the urban way of life. Owning to these changes, it could be supposed that urban-rural difference in fertility behaviour is diminishing or even vanishing (Djurfeldt, 1999).

In a study to examine the factors responsible for rural-urban fertility differences, Yang (2003) selected education, occupational class, income, and the participation of women in the labour force. He tested the hypothesis that the educational level, economic status, and proportion of women working had direct negative effects on a community’s fertility level; and these effects varied with place of residence. Findings showed significant rural-urban difference in each of the variables. No rural-urban differences were found in the relationship between fertility and occupational class. They were inversely related in both rural and urban areas. In rural areas, education had a direct negative effect, income had a positive effect, and women working had no effect on fertility. In urban areas, education and income had no direct effect on fertility, while women working had positive effect on fertility.

According to NDHS (2008), the more urbanized zones in Nigeria namely; South East, South-south and South West have Total Fertility Rate (TFR) of 4.8, 4.7 and 4.5 respectively. These zones have lower TFR than the three northern zones which are mostly rural. The highest TFR is seen in north West (7.3), followed by northeast (7.2). This by implication means that place of residence has a significance influence on fertility differentials.

**Education and fertility differentials**

The effect of education in fertility reveals that many issues can be discernable from it. Uneducated women who live in societies where large proportion are literate or where educational level is high, may have a fertility rate from that of uneducated woman elsewhere. The better educated may be influenced by the educational distribution in the community. If aggregate educational distribution has, on the whole, a substantial depressing effect, fertility will decline more sharply in response to an increase in women’s education than suggested by the estimates of individual level effects. In effect, this means that the higher the proportion of better educated women in a community, the lower the fertility rate in that community. Since the net effect of community education outweighs individual level of education in fertility (Kraudal, 2000). A rural area with lower community-level education ultimately has higher fertility than the urban areas. A better educated woman not withstanding her residence may experience different fertility to uneducated woman (Lesthaegle et al., 1985). Barber et al. (2002) investigated the effects of average length of the woman’s own education in Peru. They concluded that women who spend a long time getting education are likely to have fewer numbers of children than those who spend less or no time at all. Of course this is because the woman has spent a long period of childbearing years in school, thus shortening the years of risk of pregnancies.

Education is widely held to be a key determinant of fertility (Leon, 2004; McGary and Royer, 2006) and from a theoretical perspective; several casual channels have been emphasized. Education raises a woman’s permanent income through earning tilting her optimal fertility choices towards fewer off springs of higher quality.

These assertions have been further confirmed by NDHS (2008), based on this research, Total Fertility Rate (TFR) is decreasing with increasing level of education. It also asserts that women with more than secondary education have a TFR of 2.9, compared with women with no education who have a TFR of 7.3. It is clear therefore, that level of women’s education determines their fertility behaviour.

**Conclusion and Recommendation**

This paper has clearly demonstrated that the rate of population growth in Nigeria is quite alarming and this acceleration is caused by high fertility rate among women. It is notice that, there is a huge gap in terms of fertility differentials between rural and urban women. Regionally, also, women of the south-east, south-south and south west have a lower fertility than those in...
the three northern zones which are mostly rural. Most of these differences that occur as a result of place of residence happened due to nonchalant attitude people have toward fertility control mechanisms and the high concentration illiteracy level in the rural areas. Educationally however, women with high level of education tend to have lower fertility performance than those with little or no education. For the purpose of this paper, the following factors are recommended as a means of reducing fertility rate in the country in order to keep pace with the current population pressures in Nigeria.

1. **Adequate funding and greater Private Sector Involvement:** one of the ways in which fertility rate can be reduced to keep pace with the population pressures is for the government to commit long-term funding of the cost of sensitizing women about fertility regulation policies.

2. **Proper formulation of fertility regulation policy to reduce the rapid population growth:** another efficient way of reducing fertility differentials is for the general public to allow women to go for higher level of education. This is essentially important for the three northern zones in order to meet up with their southern counterpart. This will surely influence fertility rate for a better in the country.

3. **Government should make education accessible and affordable for women:** women in both rural and urban areas should have access to higher level of education so that their childbirth spacing will be widen and increase in their postpartum infecundity. This will help in reducing their fertility, hence, reduction in rate of population growth in the country.

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