IJAAR PUBLISHING®

Journal of Global Interdependence and Economic Sustainability | ISSN: 2955-0815
Vol. 5, Issue 1 (2026) | www.ijaar.org/jgies

IMPACT OF POPULATION GROWTH ON POVERTY PREVALENCE IN JIGAWA STATE, NIGERIA.

By

Kamal D, Muhd, Hussaini Sani & Muhd Musa

Economics Department
Jigawa State College of Education, Gumel

Abstract
This study investigates the empirical relationship between population growth and poverty prevalence in Jigawa State, Nigeria. Relevant literatures were reviewed for the study. To guide the study, five hypotheses were developed. The study also used a survey design to meet its purposes. To analyze the data, descriptive and inferential statistics such as simple percentage and chi-square were used for simple comprehension. The findings revealed that, there is a significant negative relationship between population growth and the prevalence of poverty in the study area by complicating family access to portable water supply, good education, better health care, food, housing and shelter as well as good environment. The study concludes that unless population growth is checked all development achieved would be neutralized by increasing population. It is therefore recommended that economic incentives and disincentives should be introduced by the government to check early marriages, polygamy and encourage women education and employment. Government should also embark on mass media campaign to persuade people to have smallest families and also remind them on the effect of large family above the limited family resources.

Key words: *Population growth, poverty prevalence, Jigawa State, Nigeria.*

https://doi.org/10.46654/a388ws66

Introduction

Nigeria is one of the fastest population growing countries in the world. The first census exercise in Nigeria took place in 1963 giving the total number of its population at 56 million people. This was followed by 1973, with 79.8m, 1991 88.5, 1999 113.8m. The last population census exercise of 2006 puts the country's population figure at 140 million people, with 71,708,000 males and 68,293,683 females, (NPC, 2006) population increase of such magnitude is unprecedented. The estimated population in 2025 Jigawa state approximately has 8.31 million people and the growth rate estimated at 10.5% from 2022 estimate of 7,499,100. Jigawa state's population growth rate is one of the highest in the country which puts pressure on resources such as land, water, job etc that potentially exacerbating poverty prevalence without adequate interventions. However, there are so many socio-economic problems that resulted from this population increase. The problem of population growth (high) is not simply a problem of numbers, but it is a problem of human welfare and development. Rapid population growth can have serious consequences on the wellbeing of all humanity. If development entails the improvement in the peoples level of living, their income, food, shelter and clothing, health, environmental sanitation, education, portable water supply and the general standard of wellbeing, then the really important question about population growth remains; how the contemporary population situation in many developing countries like Nigeria distract their chances of realizing the goals of development (MDG's), not only for the current generation, but also for the future generations. Higher population growth in Nigeria is particularly attributed to the increase in birth rate with all its supporting factors such as improved medical facilities, early marriages, polygamous marriage, cultural & religious consideration etc. decreased death rate is also another factor responsible for the high growth of population in Nigeria and Jigawa State in particular.. Finally, migration is an additional factor. However, this population which grows as a result of the above factors, competes directly for the limited resources available, thereby mounting a high pressure on the finite resources and the consequences are dire and detrimental both socially and economically e.g. limited access to education, good water supply, a degrading environment, poor housing, clothing and shelter, most of the children are chronically malnourished.

Problem Statement/Justification

The economy of Jigawa State is largely agrarian, with over 80% engaged in subsistence farming and animal husbandry. Large population growth is not only associated with food problem but, also impose constraints on the development of savings, foreign exchange and human resources, which are needed for a state to survive. The increase in the demand for food leads to a decrease in natural resources. Population growth includes low income per capita, famine and diseases and wide spread poverty, since rapid population growth complicates the task of providing and maintaining the infrastructures, education, environment, housing and health care needed in modern economies, thus making the vicious cycle of poverty to become wider. However, there is urgent need to examine the impact of this population growth on the poverty prevalence in Jigawa state, Nigeria.

Objective(s) of the Study

i. The impact of population growth on poverty prevalence in terms of access to portable water supply in Jigawa State, Nigeria.
ii. The impact of population growth on poverty prevalence in Jigawa State Nigeria in terms of access to food, housing and shelter.
iii. To find out the effects of population growth on poverty prevalence in terms of access to good education in Jigawa State, Nigeria.

iv. To examine the influence of population growth on poverty prevalence in terms of good health and good environment in Jigawa State, Nigeria.
v. To discover the impact of population growth in Jigawa State Nigeria in terms of access to good environment.

Hypotheses

Based on the nature of the research topic, the following null hypotheses are generated for testing at probability 0.05 level of significance.

HO_1 There is no significant difference between population growth and poverty prevalence in North-Western Nigeria in terms of access to portable water supply.
HO_2 There is no significant relationship between population growth and poverty prevalence in North-Western Nigeria in terms of access to food, housing and shelter.
HO_3 There is no significant effect between population growth and poverty prevalence in North-Western Nigeria in terms of access to good education.
HO_4 There is no significant relationship between population growth and poverty prevalence in North-Western Nigeria in terms of access to good health facilities.
HO_5 There is no significant difference between population growth and poverty prevalence in North-Western Nigeria in terms of access to good environment.

Literature Review

Theoretical issues

In this section, we provide a capsule summary of the theoretical framework on the relationship between population growth and poverty prevalence in Nigeria. Population growth: According to Thomas F. (1973), the population of an area is the total number of all individuals alive in a particular point in time. Therefore, population of a place can be seen as the total number of people living in a particular area and at a particular time. On the other hand population growth refers to the increase in the size of the population and the pace of this increase:-

Poverty prevalence

Poverty is perhaps the most serious threat to world peace, even more dangerous than terrorism, religious fundamentalism, ethnic hatred, political rivalries or any other force that is obtain cited as promoting violence and war, poverty leads to hopelessness, which provoke people to desperate acts. It leads to bitter conflicts between peoples, clans and nations over scare resource; water arable land, energy supplies or any other saleable resources. According to Aliyu (2008) and Jegede (2009), poverty is a concept that is never hard to comprehend, yet it is seen and defined in different and diverse perspective depending on the academic and ideological learning of the analyst, however, world bank (1996) describe poverty as ‘hunger, lack of shelter being sick, in ability to see doctor and not being able to attend school hence poverty described a wide range of circumstances associated with needs, hardship and lack of resources. Malumfashi (2008) noted that, it is generally accepted that poverty means lack of basic needs and service such as food bedding, shelter, basic health care and education, which implies lack of minimum standard of living. The central bank of Nigerian (1999) view poverty as ‘ a state whereby an individual is not able to cater adequately for his basic needs of food, clothing and shelter is unable to meet social and economic obligation, lacks gainful employment, skill assets and self-esteem, and has limited access to social and economic infrastructures such as education, health, portable water and environmental sanitation; and consequently, has limited chance of advancing his or her welfare to the limit of his or her capabilities.

Several empirical evidences indicates that population growth has impacted the economy positively stimulating economic activities and helped in bringing economic growth and reducing the extent of poverty. For example Zuberi, et, al, (2003) reported that, more people meant greater productivity

Empirical issues

Growing population meant more workers and laborers who will increase overall output. Hinrischsen (1998) focus on the effects of population growth and affirmed that population growth has affected the economy positively. Simon (1992) found that, population growth induces technological advancements and innovation. This is because population growth encourages competition in business activities and, as the country's population grows, the size of its potential market expands as well. The expansions of the market, in its turn, encourage entrepreneurs to set up new businesses. In another study, (Gideon, Gachanja and Obese, 2003) in their study on 'the impact of population change on economic growth in Kenya' found that an increase in population will positively impact economic growth in the country. And therefore reduced the extent of poverty. Studies conducted by other scholars have challenged the positive impacts of population growth and stress that population growth retards economic growth and development and hence therefore accelerate the spread of poverty in a country generally and on households in particular. For instance, peter (2011) in his study 'population and human resources development in Nigeria' subscribed to the believed that rapid population growth result to poor education, increasing cost of living, malnutrition, health complications, food insecurity, land tenure, poor water supply and environmental degradation. These studies has also found that economically, population growth will demand that government spend more on the provision of basic education, health, food, housing and shelter and other social amenities. However, the most disturbing issue is the fact that all these effort or achievement on the provision of the above mention facilities will gradually be wiped-off by increasing population. For example a study by Kerbo (2006) titled "world poverty: global inequality and the model world system. Showed that for a country to have a high population and to be economically better-off, the national gross domestic product (GDP) most grow alongside the population, otherwise people will essentially become worse off and consequently, the dimension of poverty will be wider than before. By this, it show that population growth alone cannot or is not sufficient for economic growth but, population growth plus. Similarly, (Mankiw, Roemer, and Wei, 1992) reported similar finding as Kerbo observed that growth in population effects the economy negatively, this is inform of low income per capital, poverty spread widely, famine and diseases among others. Therefore, rapid population growth complicate the task of providing and maintaining the infrastructures needed in modern economies which are provided either by the government, development partners or even individuals. Furthermore, Latimer and Kulkani (2003) in their study believe that migration as one of the attributes of population growth. Migration affects the economy negatively as areas quickly grow oftentimes without correspondent increase in necessary infrastructures, slums develop around the city, and crime, diseases, environmental pollution and other social ills becomes complications that prevent future growth in a country and poverty will continue to prevail. The theoretical framework for this study is anchored to the Malthusian theory of population. Rev. Malthus (1798), in his writing "Essay on the principle of population" and the difficulties that may arise as a result of population growth drawing on the concept of diminishing returns, Malthus postulated that there is a universal tendency for the world population to increase at a faster rate than its food production. Whereas the population grows at a geometric rate i,e 2, 4, 6, 8, 10….doubling every 30 to 40 years. At the same time because of diminishing return to the fixed factor, land,

food supplies could expand only at a roughly arithmetic rate i.e 1, 2, 3, 4, 5….. .In fact, as each member of the population would have less land to work, his or her marginal contribution to food production would actually start to decline. Because the growth in food supplies could not keep pace with the burgeoning population, per capital income in food production would have a tendency to fall. Therefore in the absence of consistent checks on population growth, Malthus predicted that within a short period of time, limited resources will have to be shared among an increasing number of individuals. Furthermore, such checks that lessen the pressure of population growth do exist, and Malthus classified these checks between two categories, the preventive and the positive checks. The preventive check consists of discretionary limitations to population growth. Couples before getting married and building a family, make a sound decision in relation to the income they anticipate to earn and the quality of life they hope to maintain for themselves and their families. The positive checks on the other hand, is a direct outcome of lack of a preventive check. When a nation or household does not limit the number of their progeny voluntarily, diseases, famine and wars will reduce the size of the population and establish a balance between the population and the available but limited resources.

Methodology (Should include description of study area/site/subjects, data Collection and data analysis

This study will adopt survey design to meet its purposes. The survey design is considered appropriate because it has the advantage of effectiveness in obtaining information about personal perceptions, belief, feelings, motivations, anticipation and future plans as well as past behaviour. The survey will be on self-developed questionnaire. The three senatorial zones will serve as the study area. Families/household from one urban and one rural area from each senatorial zone would be used as the subjects, area/site for the study. The questionnaire will have two sections: section A contained demographic information of the respondents, while section B will measure perception of respondents on the impact of population growth on poverty prevalence in Jigawa State, Nigeria. Data to be generated from the survey would be analyzed using descriptive and inferential statistic such as simple percentage, mean, standard deviation and chi-square for better and easy comprehension.

Population

The target populations of this study are 8.31 million people according to 2025 population estimate

Sampling and Sampling Technique

The sampling technique to be used for this study is a multi-stage cluster sampling. At the first stage, three (3) local governments out of the twenty seven (27) would be selected through hat and draw procedure. At the second stage, one (1) urban area and one (1) rural area from the selected local governments (total 3 X 2 =6) communities) would be selected also through hat and draw procedure while at the third stage, the sampled subjects would be selected using table or random numbers procedure.

Sample Size Determination

Sample and sampling procedure is another element in methodology (Wilkinson, 1991). The adequacy of sample size was determined by referring, firstly, to sample size proposed by Krejcie and Morgan (1970), and then supported by Cohen's and G*Power analysis program (Faul, Erdfelderm, Lang & Buchner, 2007). Forza (2003) has stated that determining sample size is a complex issue which is linked to the significance level and the statistical power of the test, and also to size of the researched relationship (for example, association, strength or

amount of difference). Normally quantitative research does not always mean involving very big samples. Even though the larger the sample size, other things being equal, the smaller the error and the greater the reliability or precision of the results (Cohen, 1988). A multi-stage cluster sampling would be used to select both research area and the sample of the study. Cluster sampling according to Gay, Mills & Airasian (2009), is a sampling in which group not individuals are selected, they can be communities, states, schools, districts and so on. According to Krejcie and Morgan (1970), a population of 1,000,000 and above s requires a sample size of at least 384 respondents. Considering the population of Jigawa State according to 2025 population estimate it has 8.31 million people, the sample size of the study would be 384 which could be drawn from the three (3) sampled local government areas in the state. The key reason for being concerned with sampling is that of external validity – the extent to which results may be generated to other situations with other people (Shavelson, 1998),

Table 1: Sampling process

Local Govt./Senetorial Districts	Urban and Rural Areas	Number of Respondents
Hadejia (North-East) Kazaure (North-West) Dutse (North-Central)	Hadejia (Urban) Kazura (Rural) Kazure (Urban) Dan Manomi (Rural) Dutse (Urban) Harbo (Rural)	64 64 64 64 64 64
Total 3 LGA/Sen. District	6 Communities	384

TEST OF HYPOTHESIS

Chi-square (X^2) is used in testing the five hypothesis of the study. According to E.C. Osuala (1982), Greek letter X^2 is frequently used in testing a hypothesis concerning the difference between set of observed frequencies of a sample and a corresponding set of expected or theoretical frequencies, chi-square is computed as follows.

Where, o = observed frequency

E= expected frequency

HYPOTHESIS ONE:

Ho_1: There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigerian in terms of access to portable water supply.

Table 2: frequencies observed d

Options	There is a significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to portable water supply	There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to portable water supply	Total
Yes	210	174	384
No	174	210	384
Total	384	384	768

Table 3: frequencies observed.

Observed frequencies	Expected frequencies
210	384X 384/768=192
174	384X 384/768=192

Tables 4: computation of the value of x^2

Option	O	E	O-E	$(0-E)^2$	$(0-E)^2/E$
Yes	210	192	18	324	1.69
No	174	192	-18	324	1.69
Total	384	384	0		3.38

Analysis from table 4: shows that calculated x^2 value is 3.38, while the critical or table value is 3.84 under 1 degree of freedom at 0.05 significant level. Since the table value is less than the calculated value, hence the null hypothesis is rejected and the alternative hypothesis is accepted that there is a significant relationship between population growth and poverty prevalence in terms of access to portable water supply.

HYPOTHESIS TWO:

Ho_2: There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigerian in terms of access to food, housing and shelter.

Table 5: frequencies observed. .

Options	There is a significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to food, housing and shelter	There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to food, housing and shelter	Total
Yes	265	119	384
No	119	265	384
Total	384	384	768

Table 6: Frequencies Observed.

Observed frequencies	Expected frequencies
265	$384^{X}384/768=192$
119	$355^{x}255/710=192$

Tables 7: computation of the value of x^2

Option	O	E	O-E	$(0-E)^2$	$(0-E)^2/E$
Yes	265	192	73	5329	27.76
No	119	192	-73	5329	27.76
Total	384	384	0		55.52

Analysis from table 7 shows that calculated value is 55.52, while the critical or table value is 3.84 under 1 degree of freedom at 0.055 significant level. Since the table value is less than the calculated value the decision is to reject the null hypothesis, and conclude that there is a significant relationship between population growth and poverty prevalence in Jigawa State, Nigerian. In terms of access to food, housing and shelter.

HYPOTHESIS THREE:

Ho_3: There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigerian in terms of access to good education

Table 8: Frequencies Observed.

Options	There is a significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good education	There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good education	Total
Yes	298	86	384
No	86	298	384
Total	384	384	768

Table 9: frequencies observed.

Observed frequencies	Expected frequencies
298	$384^{x}384/768=192$
86	$384^{x}384/768=192$

Tables 10: computation of the value of x^2

Option	O	E	O-E	$(0-E)^2$	$(0-E)^2/E$
Yes	298	192	106	11236	58.52
No	86	192	-106	11236	58.52
Total	384	384	0		117.04

The table 10 above shows the chi-square computation of the value of x^2 for population growth and poverty prevalence. This table show that the calculated x^2 is 117.52, while the critical or table value is 3.84 under 1 degree of freedom at 0.05 significant level, hence we reject the null hypothesis, that there is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good education and

accept the alternative hypothesis that there is a significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good education.

HYPOTHESIS FOUR:

Ho_4: There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good health facilities

Table 11: frequencies observed.

Options	There is a significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good health facilities	There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good health facilities	Total
Yes	307	77	384
No	77	307	384
Total	384	384	768

Table 12: frequencies observed

Observed frequencies	Expected frequencies
307	384 x 284/768=192
77	384^x384/768=192

Tables 13: computation of the value of x^2

Option	O	E	O-E	$(0-E)^2$	$(0-E)^2/E$
Yes	307	192	115	13225	68.88
No	77	192	-115	13225	68.88
Total	384	384	0		137.76

Analysis from table 13 shows that calculated x^2 value is 137.76, while the critical or table value is 3.84 under 1 degree of freedom at 0.05 significant level. Since the table value is less than the calculated value T. then the null hypothesis that there is no significant relationship between population growth and poverty prevalence in terms of good health facilities is rejected and alternative hypothesis is accepted that there is a significant relationship between population growth and poverty prevalence in terms of good health facilities in Jigawa State, Nigeria

HYPOTHESIS FIVE:

Ho_5: There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigerian in terms of access to good environment

Table 14: frequencies observed.

Options	There is a significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good environment	There is no significant relationship between population growth and poverty prevalence in Jigawa State, Nigeria in terms of access to good environment	Total
Yes	233	151	384
No	151	233	384
Total	384	384	768

Table 15: frequencies observed

Observed frequencies	Expected frequencies
233	$384^{x}284/768=192$
151	$384^{x}284/768=192$

Tables 16: computation of the value of x^2

Option	O	E	O-E	$(0-E)^2$	$(0-E)^2/E$
Yes	233	192	41	1681	8.76
No	151	192	-41	1681	8.76
Total	384	384	0		17.52

The table 16 above shows that the calculated x^2 value is 17.52 which is still greater than the critical value or table value 3.84, since the calculated value is greater than the table value, than the decision is to reject the null hypothesis that there is no significant relationship between population growth and poverty prevalence in terms of access to good environment and conclude that there is a significant relationship between population growth and poverty prevalence in terms of access to good environment in Jigawa State, Nigeria.

CONCLUSION

High population growth is a growing challenge to the world in general and developing economies like Nigeria in particular. Poverty is a threat to the poor, because he cannot meet up his primary basic needs of life, that of his families or his dependents. It exists where people are unable to make both ends meet for better livelihood. This study however, set up to establish a study of the relationship between population growth and poverty prevalence in Jigawa state Nigeria.

After a theoretical and empirical exploration of relevant literatures, the paper found that there is a significant relationship between population growth and poverty prevalence in the study area. However, the findings from the research questionnaire of this study indicates the following as the effect of population growth on the prevalence of poverty among families/household in the study area which include poor educational standard for the children, increasing cost of living, malnutrition, poor housing, and shelter, health complication, overcrowding, environmental degradation, increase in the rate of crime and other resultant social vices. Therefore large families perpetuate poverty, and also exacerbate the vicious cycle of poverty.

The findings of the study support the existence of a relationship between population growth and poverty in the state and provide a strong base for the hypothesis that rapid population growth is a driving force to poverty prevalence.

Comprising the literature review and the result obtained from the study, we were able to discover that high birth rate is the major factor responsible for the rapid growth of population in the state.

Conclusively, the relationship between population growth and poverty prevalence is negative having a detrimental side effect on the household standard of living. This suggest that the findings from this study seems to be in line with the Malthusian theory of population growth which states that population growth exert a negative impact on a state's economy due to variety of problems caused by population growth. Therefore, the relationship between

population growth and poverty prevalence remains highly negative. These finding also give support to population growth-driven poverty hypothesis as all development achieved toward poverty reduction is being neutralized by population growth.

DIRECTION FOR FUTURE RESEARCH

Based on the findings of the study, future research may be conducted using different data set. It will be interesting to test the instrument using data on other regions, states or countries to identify the other impacts of population growth on poverty prevalence in the selected regions, states or countries which this research did not identified.

RECOMMENDATIONS

With the result of this study and our findings indicating negative correlation between population growth and poverty in Jigawa state, Nigeria. The following recommendations were therefore profound, as these will go a long way to check population growth and as well mitigate its effect of spreading poverty among families in the study area.

1. There is the need from the part of the state government to put measures to ensure that the economy grow at a higher rate than the population growth, this will ensures that the increasing demand of services arising from the population growth is met.

2. Government should also embark on mass media campaign to persuade people to have smallest families and remind the same on the effect of large families above the limited family resources.

3. The government should encourage women education across the state and create job opportunities for women so as to be more engaged, for it has been found that full-time housewives have a greater tendency to have more children than working mothers.

4. Government should encourage family planning programs making them accessible, affordable and feasible to both rural and urban communities to ensure its effectiveness.

5. Government should also provide subsidies on agricultural inputs to serve as a compliment to agriculture for more economic empowerment of the rural populace.

6. Economic incentives and disincentives should be introduced by the state government to check early marriage, polygamy, and at the same time to encourage women employment.

References

Aliyu, S.U.R. & Malumfashi, S.L. (2008). "Poverty Causes, Natures and Measurement In Poverty In Nigeria": London; Adonis & Abbey Publishers Limited.

Central Bank of Nigeria Research Department (1999).Nigeria Development Prospect: poverty Assessment and Alleviation Study (Abuja: CBN).

Gay, R.I., Ills, G.E & Arasian, P. (2009). Educational Research Competencies for Analysis and Applications (19th ed). Upper Saddle River: Merill books.

Gideon, K.T. Gachanja, P. & Obere, A. (2013). "The Impact of Population Change On Economic Growth In Kenya. International Journal of Management Science. Vol. 2, No. 6, Pp. 43 – 60.

Hinrichsen, D. (1998). Coastal Waters of the World: Trends, Threats And Strategies, Washington D.C. Island Press."

Jegede, E. (2009). The Reality of Poverty in Nigeria. Key Manifestations and Strategies for Remedies. Academy International Journal of Marketing And Management, 1 (1) 86 – 110.

Kerbo, H.R. (2006). World Poverty. Global Inequality and the Modern World System. New York: Mcgraw – Hill.

Latimer, A. & Kulkani, K.G. (2013). Population Explosion and Economic Development: Comparative Analysis of Brazil and Mexico. Metropolitan State College of Denver, Co 80 217 – 3362.

Malthus, T.R. (1798), An Essay on the Principles of Population, Cambridge: Cambridge University Press.

Mankiw, G. Roemer, D. And Weil, P. (1992). A Contribution to the Empirics of Economic Growth. Quarterly Journal of Economics.

Martin, P. (2009) "Demographic and Economic Trends: Implications for International Mobility". United Nations Development Programme Human Development Report. Research Paper 2009/17.

Peters, A.A. (2011). Population and Human Resources Developments in Nigeria. Paper Presented On Course 20 At National Defense College Abuja, October, 5th.

Saunders, M. Lewis, P & Thornhill, A. (2009). Research Methods For Business Students. 5th Edition. Pearson Education Limited.

Shavelson, R.J., (1988). *Statistical Reasoning for the Behavioural Sciences.* (2nd ed.). Boston: Allyn and Bacon.

Simon, J.L. (1992) "Population And Developing Countries" Princeton University Press: Princeton, New Jessey".

Thomas, F. (1972). The Future of Population Growth. Alternative Paths to Equilibrium. A Wiley Interscience Publication, New York, U.S.A.

World Bank (1996)

Wilkinson, A.M., (1991). *The Scientist's Handbook for Writing Paper and Dissertations*. Englewood Cliffs, New Jersey: Prentice Hall.

Zuberi, T. (2003). "Population and African Society". The Annual Review of Sociology. Vol. 5 29:465-486.