

## Nigerian Population Dynamics and its Implication for Development

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**Abstract:** In this study, the population size and its dynamic subject to fertility, mortality and migration is discussed for African most populous nation. The trend and pattern of population growth in Nigeria which has been largely controversial is reviewed. This study revealed that average growth rate has increased from 2.8% to about 3.2% and crude birth rate of 54.4 per 1000 persons is considered very high with a low life expectancy of 46.74. There is a high tendency of increase in population growth rate if the present fertility level is not reduced by an effective birth control policy measures.

**Key words:** Population dynamics, growth, fertility, mortality, migration

### INTRODUCTION

The population data of a country contains all important information required for planning and serves as input factor for decisions, in day-to-day administration, formulation of public policies, allocation of resources and in implementation of control and monitoring of government programs and activities.

Census data is an indispensable data base required in measuring the physical and social well being of the people of a country, as well as in the estimation of most vital economic indicators necessary for local and international evaluation of human development. Thus, a country devoid of necessary population data support can not develop (Menakaya, 2001).

This study focuses on Nigerian population overtime, its components and rate of growth in the last 5 decades.

**Population growth in Nigeria:** Nigeria as the 10th largest population in the world, with a growth rate of 3% which is expected to double in 25 years.

The first population census in Nigeria took place in 1952/53, but was dismissed as an undercount and on apprehension that it was tax related and the figure was put at 55.6 million. It constitutes about 25% of Africa's population. The other attempt was in 1963 but was cancelled after much controversy and allegation of over counting in many areas, charges of inaccuracy and manipulation for regional and political purposes.

Another headcount took place in 1973 and 1991. The 1991 provisional figures was put at 88.5 million but the final was 88.9 million after all complaints and verifications in census tribunal. It should be noted that history of census in Nigeria has never been devoid of controversy

and each attempt has attracted controversial and very sensitive reaction's ranging from cultural, political, religious, ethnic reasons.

Until the last census exercise in 2005, the result of which has not been fully made public, the 1991 census figures stands as the most acceptable populations figures being used locally and internationally for planning and estimation purposes. Population growth is demographically inconsistent. The recently released census is a bit curious because it doesn't show a pattern of normal demographic principles nor does it reflect the economic reality of the nation.

With a population of 140 million, Nigeria would move from the 10th most populous country in the world to the ninth after China, India, United States, Indonesia, Brazil, Pakistan, Bangladesh and Russia.

The rate of growth of 3.2% per annum between 1991 and 2006 seems curious because between 1963 and 1991, the average annual rate of growth was put at 2.83%. With increased growth in the economy, increased standard of living, migration of Nigerians particularly the middle class abroad, which has been phenomena since 1991 and with the crushing hard economic situation since the 90's one would have expected the rate of population growth to fall below 2.83% which it was between the 80s and 1991.

The normal demographic estimate of Nigeria was that the nation should be growing between 1.9-2.0% per annum between 1991 and today, in which case Nigerian's population should be about 120 million. However, it appears that is the best we can deal with in the meantime, but it has economic implications. It means that per capita income of Nigeria has consequently fallen from \$320 to about \$250 per head which consequently reduces the

human and capital development income of Nigeria and makes it almost one of the poorest in Africa today. If we look at the rate of population growth over time between 1931 and 1953, it was estimated at about 2% per annum.

Between 1953 and 1963, it was estimated at about 3.5% per annum. Between 1963 and 1991, it was estimated at 2.8% per annum, which looked as if the rate of growth of the population has been demographically inconsistent because over time, the annual rate of population growth for a normal country situation should continue to reduce rather than increase. That is why in Europe today, the rate of population growth is virtually between 0.5 and 1.0% and the population of many of the countries has remained stable over time and even the fastest growing population in Africa from 2000-2006 is between 2.8-3.0% per annum.

Countries in West Africa have an annual population growth rate of 3%, Burkina Fasso (3%), Mali (3%), Gambia (2.8%), while others like Lesotho, South Africa and Namibia are growing between 1.5-2% per annum.

**Population size:** The size of the population in any Nation is a function of fertility level, mortality rate and migration. We shall discuss these dynamics in the context of Nigerian population.

**Fertility:** As defined by Cox, fertility is the actual reproductive performance of a population. Fertility survey has drawn more attention than any other vital statistics. The usual fertility indicators discussed here in respect of Nigeria include: Crude Birth Rate (CBR). This is the number of living births in a year per thousand of the average population in the same year; the Total Fertility Rate (TFR) is the number of births a woman would bear, if she experienced the observed age specific fertility rates in the population throughout her reproduction life; General Fertility Rate (GFR) is the ratio of the number of live births in one year to the average number of women capable of bearing children and Age Specific Fertility Rate (ASFR) that is the fertility rates according to the age reached by the mother during the year under consideration. Meanwhile, the regional distribution of these indices in Nigeria based on 1991 Post-Enumeration Survey (PES) is presented in Table 1.

The number of women of child bearing age (15-49 years) is high in both North-Eastern and South-Western part compared with what was observed for North-Western and South-Eastern Nigeria. Assuming, a growth rate of 2.83%, Nigeria is expected to have a total of 27, 765, 287 women of child bearing age and a total of 5, 240, 621 numbers of live births by the end of the year 2011.

According to 1991 Post Enumeration Survey, the crude birth rate in North-Eastern Nigeria is higher than any other part of the country but the crude birth rate for N.W., S.E. and S.W. is between 44-47 per 1000 women of child bearing age. The summary indices for Nigeria as a whole has a crude birth rate of 45 per 1000 in 1965 (Federal Office of Statistics, Nigeria).

Also, the estimated parity (T.F.R.) for a woman of child bearing age is 6, compared with 7 and 6 in 1985 and 1965, respectively. Given the growth rate of 2.83%, We wish to assert that the estimated T.F.R. of the country will be 7 by the end of 2007; this is considered too high compared with 4.7 of 1990.

**Mortality:** In Nigeria, accurate and relevant data with respect to mortality trends and differentials is less available. Most of the demographic studies on mortality of Nigerians are based on indirect estimates from retrospective survivorship data. Meanwhile, PES (1991) reports that questions on the deaths that occurred in household were answered by reliable proxy, which may not have provided accurate information on decreased age due to some cultural factors. But in any demographic survey, Johnson technique provides plausible estimates of infant and childhood mortality.

In this study, we present the mortality picture of Nigeria as measured by the Crude Death Rate (CDR), Infant Mortality Rate (IMR) and Child Mortality Rate (CMR) as presented in Table 2.

Where:

CDR = Crude Death Rate

IMR = Infant Mortality Rate

CMR = Child Mortality Rate

Furthermore, 1965 estimate of CDR for Nigeria was 22.2 per 1000 lives and the IMR was 141.4 per 1000

Table 1: Regional distribution of fertility indices

Region	Female population (15-49 Years)	Estimated births	PER 1000 Women			
			CBR	GFR	TFR	GRR
North-East	5,663,972	1,161,142	54.40	205	6.20	3.02
North-West	4,677,053	974,041	47.00	208	6.39	3.10
South-East	5,288,253	1,038,517	46.90	196	6.39	3.12
South-West	5,374,809	969,629	43.60	180	5.73	2.81
Nigeria total	21,004,087	3,964,463	44.60	189	5.89	2.89

Source: 1991 Analytical Report on the Population Census of the Federal Republic of Nigeria

Table 2: Overall mortality indices for Nigeria

Year	Mortality indices				Source
	CDR	IMR	CMR	Life expectancy	
1965	22.2	141.4	148	NA	Fos Demo Survey (1966)
1979	17.0	84.8	144.5	NA	NFS (1981)
1985	16.0	72.4	115.6	NA	Bamgboye (1986)
1991	7.1	93.0	64.0	53.2	NPC (PES) (1991)
2001-2010	18	98.8	170.4	46.74	Shangodoyin (2001)

Source: 1991 PES NPC, ABUJA

live births and 148 per 1000 live births for the Child Mortality Rate.

Bamgboye (1987) stated that there is an urban and rural differential in favor of the urban. The National Fertility Survey of 1979 shows a decrease in these figures with a sharp reduction in the IMR.

The 1991 PES revealed that Nigeria female has a low Crude Death Rate (13.8 per 1000) compared with their male counterpart (14.1 per 1000) but on whole, Nigeria has 13.9 per 1000 persons Crude Death Rate in 1991. The inequality S.W. < S.E. < N.E. < N.W. describes the regional distribution of Crude Death Rate (Table 3).

**Migration:** There is scanty data on international migration in Nigeria, but agencies like Nigerian Port Authority and Nigerian Airways Authority are other reliable sources of information on international migration.

Estimating the level of immigration, involves collecting data on place of birth as well as on nationality during census, whereas to estimate emigration, information on the foreign-born population in the other countries is required. For instance, the 1991 population census was conducted on a defacto basis and could not fulfill the data requirement (Nigerian Population Commission). According to the 1991 analytical report, it was assumed that some foreigners are migrants and therefore have migrant characteristics, although this assumption is weak, it serves as an antidote to indicators of the characteristic magnitude and nature of international immigration in Nigeria.

The analytical report of the 1991 census at the national level reveals that 89.1% of Nigerians were reported as having been in their respective areas of enumeration since birth, while applied to only 37.2% of the foreigners.

As indicated in Table 4, the percentage of non-response is insignificant (less than 1%) compared to those that have valid information on their nationality and duration of stay. It is interesting to note that the proportion of lifetime migrants among foreigners (61%) is more than that of Nigerians (10%), this implies that as of 1991 many Nigerians have chosen to live within their respective domain of birth.

Table 3: Regional distribution of mortality indices

Region	Mortality indices			
	IMR	CMR	Life expectancy	CDR
North-East	96.0	67.0	52.6	13.1
North-West	99.0	70.0	51.9	14.5
South-East	69.0	41.0	59.3	10.2
South-West	57.0	32.0	62.3	9.1

Table 4: Distribution of population by nationality and duration of residence

Nationality	Duration of Stay (% in Bracket)			
	Since Birth	Lifetime Migrant	No Response	Total
Nigerians	3,672,246 (89.06)	429,986 (10.43)	20,907 (0.51)	4,123,139 (100)
Foreigners	3,282 (37.17)	5,338 (60.46)	290 (2.37)	8,829 (100)
No response	76 (26.86)	147 (51.94)	60 (21.20)	283 (100)
Total	3,675,604 (88.95)	435,471 (10.54)	21,176 (0.51)	4,132,251 (100)

Source: Nigerian Population Commission (NPC) 1991 PES

**International migration:** As earlier mentioned, international migration constitutes one of the essential elements in population dynamics, along with other factors such as fertility and mortality indices.

Migration is to a large extent the result of the Nation's Economy. The World War I marked the end of an era under which government control over international movement of persons was minimal. The increasingly active role that states assumed both in promoting and prohibiting such movements brought with it the potential for international conflicts over migration, as such it would be difficult to consider the population problem without touching on migration factor.

If, therefore, an attempt is to be made to lay the foundation of a rational population policy, the formulation of an emigration and immigration policy is no less essential than that of a policy with regards to the fertility and mortality rates.

Of course, it is true that measures taken for the regulation of migration movements would not of themselves suffice to solve all population problems, but if the present Federal Government could formulate a rational population policy, it would assist the ailing economy to establish one with regards to migration, because according to Abate (2000), of all demographic phenomena, migration is the most susceptible to direct intervention and control.

Furthermore, over the years in Nigeria, considerable migration movements have been brought about by wars (1967-69 civil war, 1980, 1999 Ife-Modakeke, 1998-1999 Itsekiri-Ijaw), Invasions (Bakassi, 1993-1998), religious (Kaduna and Zamfara States 1999-2000), political persecutions (1984-1998) and economy recession and distress (brain drain 1980-2001); noticeable around 1987-1999 and causing migration of Nigerians to Europe, America, Saudi Arabia and South Africa. The contributions of such sporadic events cannot be overlooked, because the more thorough our knowledge of the matter in which migration movement naturally and spontaneously develops a system, the easier will it be to regulate and control them by systematic action. With availability of numerous published reports from different countries including Nigeria and the information of an international character now available in this millennium have made it possible to discern cyclical variations in the general development of migration movements, involving alternate acceleration and retardation.

It is worth noting that a proper elucidation of the causes of such fluctuations and all the manner in which they operate their rate of development and perhaps their comparative association with other cycles (business cycles, seasonal movement in sales, variations in school enrolment figures etc.) would be essential to the study of the main economic and social problems with which mankind is faced. In Nigeria today, migration movements are undergoing a very thoroughly guided transformation with detailed regulations based on a definite national policy. Although Nigeria, like most of other countries in Africa, has no population register at seaports and airports. But data on migration are basically derived from national surveys and planned censuses. However, not much of information on reasons for migrating could be deduced from 1991 population census.

An increasing number of international migrants came into Nigeria without valid documents through unrecognized routes and their entry is not legal.

According to 1991 population census, about 0.54% is identified as foreigners. This has 0.57% males and 0.43% females (Table 5) whereas in 1963 the percentage was 0.18% (65.467 males and 35.994 females). This indicates over 5.5% growth rate which could be attributed to both natural and economic factors. Nigerian foreign policy since independence has taken African continent as its centre piece, this has probably explained the rise in the proportion of the African foreign population relative to the total foreign population in Nigeria from 54% in 1963 to 84% in 1991, this represents a growth rate of about 7% for the foreign African population and about 2% for the non-African population. It is of interest to note that by

**Table 5: Distribution of population by Nationality and Sex (1991)**

Census (% in Bracket)			
1991			
	Male	Female	Total
Total	44,529,608 (100)	44,462,612 (100)	88,992,220 (100)
Nigerians	44,263,269 (99.4)	44,251,816 (99.5)	88,515,085 (99.4)
Foreigners	266,339 (0.5)	210,796 (0.4)	477,135 (0.5)
West Africans	198,769 (0.4)	157,369 (0.3)	356,138 (0.4)
Other Africans	25,052	21,411	46,463
Americans	15,380	12,769	28,149
Asian	9,113	6,152	15,265
Australia	246	214	460
Europeans	13,764	9,995	23,759
Other Nationals not stated	4,015	2,886	6,901

Source: NPC, 1991 Population Census

virtue of the 1991 population census and using the growth rate of 2.83%, the number of foreigners would have increased by 4.11% in the year 2010. The predicted figures call for an urgent measure to protect the economy especially the inadequate social services through rational policies on international migration.

## **THE DYNAMICS OF POPULATION GROWTH AND ITS IMPLICATIONS FOR DEVELOPMENT**

The Nigerian populations growth rate has not been stable since the first census took place in 1952/53. it ranges from 2.5% in 1977 and 3.4% in 1983 and 2.8 in 2004 as shown in Table 1.

The average population growth rate is about 2.8% annually according to Onwuka and Enowa (2001). This figure is far above the Africa's population growth rate of 2.6% annually and 1.8% for the world and 0.6% for North America (Abate, 2000).

Ordinarily, this should not be a cause for alarm, since in certain circumstance; a large population could be an advantage to a country in terms of market potentials, increased productivity through improvement potentials. However, Sikhitis (1988) detailed a variety of negative consequences associated with population growth in Nigeria.

For instance, in Africa and Nigeria in particular, food production growth has not kept pace with population growth. Nigeria was self sufficient in pre and immediate post colonial period when the population growth rate was low.

In Nigeria (Table 6) the average growth rate in the gross domestic product of 1.9% is less than the average population rate of 2.8%.

Table 6: Some Socio-economic Indicators of Nigeria 1986-2005

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Population in million	105.1	108.6	83.2	84.9	86.9	88.9	91.5	94.1	96.7	99.5	102.3	105.2	108.1	Nil	115	119	122	125	129
Population growth rate in %	3.3	2	0	2.1	2.5	2.9	2.8	2.7	2.8	2.8	2.8	2.8	2.8	NA	2.8	2.8	2.8	2.8	2.8
Recurrent health and capital expenditure as % of total expenditure	6.4	3.0	3.5	2.9	3.4	3.5	3.5	4.3	25.7	7.0	5.7	2.8	5.9	4.2	2.92	4.39	5.31	3..24	3.80
Recurrent and capital expenditure on education as % of total education	6.5	8.9	15.5	9.1	6.6	9	12.3	17.5	16.3	14.9	15.2	7.5	12	9.2	7.07	5.87	9.21	6.48	6.21
GDP(at 1984 factor cost in million)	74	70.3	78.8	90.8	98.4	99.4	100.3	102.7	102.6	105.7	110.3	114.7	118.5	118.7		4.59	3.49	10.23	6.09

Source: Central Bank of Nigeria Annual Report and Statement of Accounts (various issues) and Federal Office of Statistics, Annul Abstract of Statistics (various issues) and computations by the authors from data obtained in those publications

This of course has its attendant effects on provision of basic infrastructures for the growing population, inadequate fund for health, education and housing for its citizens. The average number of people living in poverty has been on the increase over the years. With 27.2% living below \$1.00 per day in 1980, 46.3% in 1985 and over 70% in 2006 (NBA, 2005).

Even more worrisome is the pattern of age distribution of the population. This worry stems from the large size of the young population. The dependency ratio is 48.2 per 51.8 of the working population is very high and is also on the increase.

This translates to the fact that in 1963, out of 100 people employed, 8.21 young and elderly people were dependent, whereas in 1991, the ratio has gone up to 9.3. The implication is that the index has placed a strain on the country's development efforts. This implies that much of the national income is expended on the provision of consumers' goods rather than on capital accumulation.

This savings and investments are impaired with retard development. Even though the Nigerian government has taken some policy measures to reduce the adverse effect and of the increasing growth rate of the population with the introduction of family planning measures, its result has not been noticeable.

The preliminary report of the just concluded 2006 population was released on the 29, December, 2006. The report shows that the total population stood at over 140 million people as at April 2006 with male population outnumbering female population by 3,505,906. The report also reveals that the population growth rate has increased to 3.2%. This increasing growth rate, coupled with increasing birth rate and annual decrease in death rate is expected to worsen the adverse consequences of population growth in Nigeria in view of the slowly growing rate of growth in the Gross national Production (GDP).

## CONCLUSION

It suffices to, therefore, conclude that this study has attempted to critically look into the Nigerian population overtime, it components and rates of growth in the last 5 decades and its implication for development subjecting it to fertility, mortality and migration.

However, the findings have shown that the average growth has increased from 2.8% to about 3.2%, the crude birth rate of 54.5 per 1000 persons is on the high side while the life expectancy is as low as 46.74.

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