2002 UGANDA POPULATION AND HOUSING CENSUS

Analytical Report

POPULATION DYNAMICS

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FOREWORD

The Uganda Bureau of Statistics supports the Government's results-based agenda by providing statistics needed for planning, monitoring development performance and progress in the implementation of major national development policies and initiatives. The Population and Housing Census is the major source of demographic and social-economic statistics in Uganda. The country has conducted scientific population and housing censuses at intervals of about ten years since 1948. The latest such census was conducted in 2002 and was the most comprehensive census ever undertaken in Uganda. This census collected household-based data on population, housing, agriculture, micro and small enterprises as well as community information.

The Uganda Bureau of Statistics has published the 2002 Census results in different reports at different times and with varying degrees of detail. The Monograph Series provide more detailed and subject-oriented analyses of the census data which relate the findings to the national development policies and targets as outlined in the PEAP. This Monograph on **Population Dynamics** contains information on the age and sex composition, fertility and mortality characteristics of the population.

The Bureau is grateful to the many institutions and individuals who participated in the planning and/or implementation of the Census. They include members of the Inter-Institutional Steering and Technical Advisory Committees; District Census Committees; field Staff including Mapping Assistants, Enumerators and Supervisors; the millions of individual respondents who provided the required information; Data Processing staff and the authors of the various chapters of this and other Census reports.

The Government of Uganda funded the bigger part of the Census. The Bureau is grateful for this collaboration and also the support from the development partners who funded the other cost of the census operations.

Finally, the Bureau appeals to the people of Uganda to make maximum use of the census data as a basis for evidence-based policy debate and design; decision-making at every level of society; investment and business transactions; and for many other purposes.

John B. Male - Mukasa
EXECUTIVE DIRECTOR

PREFACE

The 2002 Census was conducted with reference to 12th/13th September 2002 as the Census Night. During the census, trained enumerators visited every household and collected information on all persons who spent the Census night in the household. Special arrangements were made to enumerate the mobile population as well as those living in institutions. Persons living in IDP camps were enumerated as households and the information was recorded against the areas where they came from. Specifically, persons who spent the Census Night in hotels and lodges were enumerated using a special questionnaire. In addition, the characteristics of Household Heads who were not at home on the Census Night were also recorded. The enumeration was completed within seven days for most areas.

UBOS has produced several reports from the census data. In order to increase the utility of the census data, subject specific monographs giving detailed analytical findings of the 2002 Census have been written. These were written by a team of local experts in the different disciplines. In carrying out the data analysis, differentials by sex and rural-urban residence have been studied. Further differentials have been studied with respect to socio-economic characteristics as well as spatial distribution of the population. Also produced is an Abridged Version which contains the summary of findings from all the monographs.

This monograph presents the **Population Dynamics (Age and Sex Composition, Fertility and Mortality Characteristics of the Population)**. The other monographs in series include the following;

Volume I: Population size and Distribution
Volume II: Population Composition
Volume IV: Economic Characteristics
Volume V: Education and Literacy
Volume VI: Household and Housing Conditions
Volume VII: Gender and Special Interest Groups

Where possible, the 2002 Census results are compared with those from previous data sources, mainly the Censuses of 1969, 1980 and 1991, the Uganda Demographic and Health Survey (UDHS) 2000-01 and the Uganda National Household Survey (UNHS) 2002/03. However, these comparisons are limited to national level data only, since disaggregation of data by district or other characteristics for earlier dates could not be obtained.

For purposes of presentation of spatial differentials, data are shown for the country's districts as at the time of enumeration. These have been grouped into four regions namely Central, Eastern, Northern and Western. These are statistical groupings of districts without administrative or political considerations. Previous studies have shown that Kampala City has indicators which are usually very different from the rest of the districts. This thus makes the

Central region appear to be fairing far better than the other regions. In order to make a fair comparison of the regions, the indicators for Central region are presented in two ways viz including and excluding Kampala City.

Prior to this monograph series, six other products were published. These are:

i. Preliminary Results – giving total population by district and sex, released in October 2002.
ii. Provisional Results – giving total population of administrative areas by sex, released in November 2002.
iii. Report on the Agricultural Module – giving information on household based agricultural activities, released in September 2004.
iv. Final Results: Main Report – giving population and household characteristics based on the final results, released in March 2005.
v. Post Enumeration Survey Report – giving the procedure and findings from the Post Enumeration activity, released in October 2005.
vi. District Census Report– giving district specific population and household characteristics based on the final results, released in November 2005.

In addition, the Bureau will be producing several other reports as outlined below:

i. Administrative Report
ii. District-level Analytical Reports
iii. Census Atlas
iv. Poverty Maps

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AIDS	Acquired Immune Deficiency Syndrome
ASFR	Age Specific Fertility Rate
CBR	Crude Birth Rate
CDR	Crude Death Rate
CEB	Children Ever Born
DRC	Democratic Republic of Congo
GoU	Government of Uganda
HIV	Human Immunodeficiency Virus
IMR	Infant Mortality Rate
LC	Local Council
MNCEB	Mean Number of Children Ever Born
MDG	Millennium Development Goal
MMR	Maternal Mortality Rate
PEAP	Poverty Eradication Action plan
PES	Post Enumeration Survey
PWD	Persons with Disabilities
SMAM	Singulate Mean Age at Marriage
SIDP	Social Investment Development Plan
TFR	Total Fertility Rate
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic and Health Survey
UN	United Nations
UNHS	Uganda National Household Survey

EXECUTIVE SUMMARY

The 2002 Census was conducted with reference to the night of 12th/13th September (Census Night). The enumeration covered all persons resident in Uganda on the Census Night. Special arrangements were made to enumerate institutional, homeless, hotel and mobile populations. The census collected data on the demographic and socio-economic characteristics of the population; household and housing conditions, agriculture; activities of micro and small enterprises; and the community characteristics. There was evidence of deliberate falsification of data from Kotido District. Therefore the analysis in this report excludes data for Kotido district.

The population of Uganda as of September 2002 was 24.2 million persons, of which 51 percent were females. The average annual population growth rate for the period 1991-2002 was 3.2 percent, which was higher than the growth rate of 2.5 for the earlier inter-censal period 1980-1991. The high growth rate was due to high fertility levels and declining mortality. The level of urbanization remained low, with only 12.3 percent of the population residing in the urban areas.

The age and sex composition of a population has significant implications in the area of planning. The sex ratio (number of males per 100 females) increased up to 102 in 1969 then declined to 95.3 in 2002 implying that majority of Ugandans are females. The sex ratio for non-Ugandans was 102 males for every 100 females.

The evaluation of the quality of the age data reveals extensive heaping for ages ending in digit zero. Uganda has, since the 1969 Census seen improvements in age reporting but females seem to consistently report poorer than males.

The population of Uganda is increasingly becoming younger, with as the proportion of children having increased from 51 percent in 1969 to 56 percent in 2002. It is also worth noting that the proportion of older persons decreased from 5.9 percent in 1969 to 4.6 percent in 2002. The Median age declined from 17.2 years in 1969 to 15.3 years in 2002, while the Age Dependency Ratio increased from 101 percent to 110 percent over the same period. The districts with lower median age tend to have higher Age Dependency Ratios.

Marriage is the most common gateway to family formation and subsequently child bearing. The data indicate that marriage in Uganda is almost universal, and that it begins much earlier among females than among their male counterparts. The Singulate Mean Age at Marriage (SMAM) was 24 years for men and 20 years for women. Secondary education delays the entry into marriage of women by 7 years.

The fertility levels have remained high over the past 3 decades, with the Total Fertility Rate (TFR) of about 7 children per woman. Wide differentials in fertility levels were observed by the level of educational attainment and place of residence. However no variations were observed by religion. The age pattern of fertility is fairly similar for the different sub-population groups. It is characterized by an early start of child bearing reaching an early peak (20 – 29 years) followed by a drastic decline thereafter. Thus, policies that target reductions in fertility levels are best aimed at the married women especially those in the rural areas and those with primary or no education.

The Infant Mortality Rate (IMR) was 87 deaths per 1000 live births (84 per 1000 for females and 91 per 1000 for males) and a corresponding under-five mortality rate of 156 per 1000 live births (150 per 1000 for females and 162 per 1000 for males). The over all mortality rate as measured by the expectation of life at birth indicates a level of 50.4 years for both sexes (52.0 years for females and 48.8 years for males). The corresponding crude death rate for the period 1996 to 2001 for both sexes is estimated to be 14.7 per 1000 (13.8 per 1000 for females and 15.7 for males).

In general, the mortality levels have improved slightly compared to the 1991 census. The Infant mortality rate declined from 122 to 87 deaths per 1,000 live births while the life expectancy at birth increased to 50.4 years representing a gain of 2 years since 1991. Other indicators such as the Crude Death rate also reflected a general improvement in the mortality situation.

COUNTRY PROFILE

	Male	Female	Total	Number ('000)
Population	100.0	100.0	100.0	24,227
Urban	12.3	12.2	12.4	2,981
Rural	87.7	87.8	87.6	21,246
Selected Age Groups				
Children (0-17 years)	57.6	54.6	56.1	13,371
Adults Uganda (18 Years and over)	42.4	45.4	43.9	10,470
Primary School Age (6 -12 years)	22.5	21.4	21.9	5,228
Secondary School Age (13 - 19 years)	16.4	16.1	16.3	3,875
Post Secondary School Age (20 - 24 years)	8.2	9.5	8.9	2,113
Working Age Uganda (14 - 64 years)	49.0	51.3	50.2	11,964
Child Labour Age (5 - 17 years)	38.4	36.4	37.4	8,911
Adolscents (10 - 24 years)	33.9	34.4	34.2	8,147
Youth (18 - 30 years)	21.0	23.6	22.3	5,321
Child Bearing (15 - 49years)	---	43.7	---	5,331
Child Mothers (12 - 17years)	---	14.7	---	1,798
Aged 10 Years and Over	64.1	65.8	64.9	15,483
Aged 50 Years and Over	7.7	8.1	7.9	1,887
Older Persons (60 Years and over)	4.5	4.6	4.6	1,090
Parental survival (For Children Below 18 Years)				
Both Parents Alive	86.6	86.7	86.6	11,581
Only Mother Alive	8.0	7.9	7.9	1,061
Only Father Alive	2.7	2.6	2.6	352
Both Parents Dead	2.6	2.5	2.6	345
Do not Know	0.2	0.2	0.2	26
Persons with Disabilities (PWDs)				
All PWDs[1]	---	---	---	838
Physical	48.0	45.4	46.7	392
Hearing problem	15.8	17.6	16.6	139
Sight Problem	23.9	27.2	25.4	213
Speech Problem	5.6	4.5	5.0	42
Mental Retardation	4.3	3.9	4.1	34
Mental Illness	4.3	3.9	4.1	34
Others	10.3	11.5	10.9	91

[1] ***Some persons had more than one disability, therefore cases do not add up to PWDs***

Education and Literacy				
Population aged 10+ and are Literate	77.4	62.4	69.6	10,782
Pop Aged 6 -12 years and enrolled in School	86.3	86.2	86.2	4,509
Pop Aged 10+ and Never been to School	13.0	26.5	20.0	3,099

	Male	Female	Total	Number ('000)
Economic Activities				
Pop aged 14 - 64 years & Working	59.4	47.7	53.3	6,371
Pop aged 5 - 17 years & Working	7.2	6.8	7.0	622
Marriage And Child Bearing				
Women Aged 50 years + and Never Married	---	3.3	---	33
Girls aged 12-17 years who are mothers	---	6.8	---	122

	Urban	Rural	Total	Number ('000)
Households	---	---	---	5,043
Male Headed	72.4	77.7	76.9	3,880
Female Headed	27.6	22.3	23.1	1,164
Average Household Size	4.2	4.8	4.7	---
Source of Livelihood				
Subsistence Farming	11.9	77.0	67.9	3,425
Other Economic Activity	71.6	14.8	22.8	1,147
Other Support	16.5	8.2	9.3	471
State of Dwelling Unit				
Temporary Building Materials	26.1	78.5	71.2	3,589
Semi-permanent Building Materials	14.2	10.9	11.4	574
Permanent Building Materials	59.8	10.6	17.5	881
Construction Materials				
Iron Sheets	82.3	50.3	54.8	2,764
Thatch	11.3	48.2	43.0	2,171
Brick Walls	67.9	40.0	43.9	2,214
Mud and Pole	16.5	54.8	49.4	2,492
Cement Screed	58.4	10.5	17.2	866
Rammed Earth	28.8	85.0	77.1	3,889
Household Facilities				
Covered Toilet	91.1	66.3	69.7	3,517
Built Bathroom	67.5	29.2	34.5	1,742
Built Kitchen	42.0	59.5	57.0	2,877
Household Assets				
Dwelling Unit	30.1	86.1	78.2	3,946
Bicycle	18.8	36.2	33.7	1,701
Television	19.7	2.1	4.6	231
Radio	68.5	46.1	49.2	2,483
Mobile Phone	21.8	2.3	5.0	254
Fixed Phone	2.7	0.2	0.5	27

CHAPTER 1: BACKGROUND

1.1 General Information about Uganda

1.1.1 Location and Size

Uganda is located in East Africa and lies across the equator, about 800 kilometres inland from the Indian Ocean. It lies between 1^0 29' South and 4^0 12' North latitude, 29^0 34 East and 35^0 0' East longitude. The country is landlocked, bordered by Kenya in the East; Sudan in the North; Democratic Republic of Congo in the West; Tanzania in the South; and Rwanda in South West. It has an area of 241,038 square kilometres, of which the land area covers 197,323 square kilometres

1.1.2 Administration

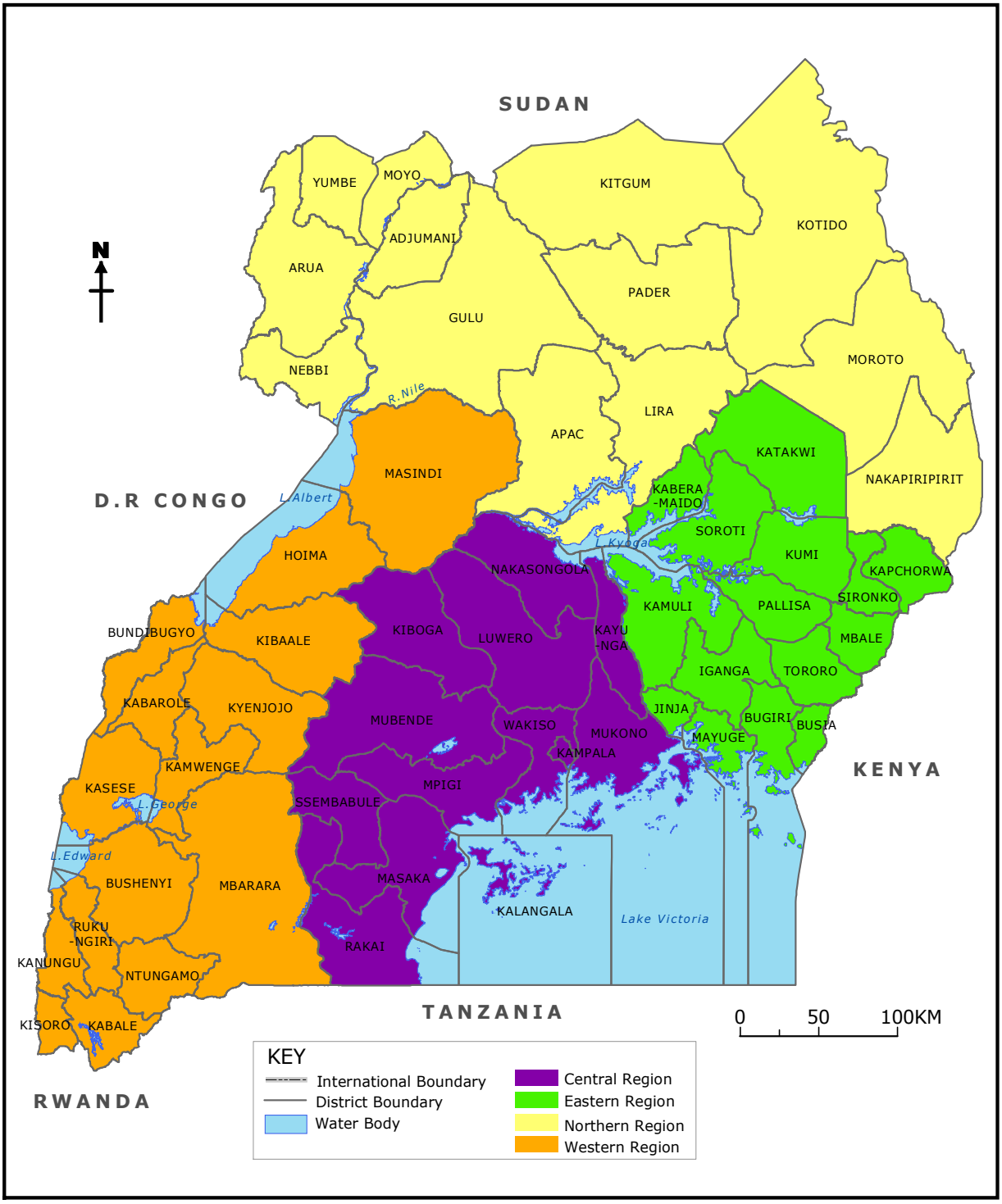
The country was divided into 56 districts at the time of the 2002 Population Census. The districts are sub divided into lower administrative units. These are counties, sub-counties, parishes and villages or Local Council 1 (LC 1). Overtime, the numbers of districts and lower level administrative units have continuously increased with the aim of making administration and delivery of services easier. This however, had a negative element in that most of the districts do not have time series data and hence it is not possible to do a trend analysis. The numbers of administrative units at the various census nights since 1969 are given in Table 1.1 below.

Table 1.1: Number of Administrative Units by Census 1969 – 2002

Level of Administrative Unit	Census Year 1969	1980	1991	2002
District	21	33	38	56
County	111	140	163	163
Sub-county	594	668	884	958
Parish	3,141	3,478	4,636	5,238

In addition, Uganda has a Local Governments System at different levels. These are LC V (District); LC IV (County / Municipality); LC III (Sub – County); LC II (Parish); and LC I (Village). The role of the local governments is to implement and monitor government programmes at the respective levels.

Figure 1.1: Map of Uganda showing the Districts as of September 2002



1.1.3 Geography

The country enjoys equatorial climate with plenty of rain and sunshine moderated by the relatively high altitude. In most parts of the country, the mean annual temperatures range from 16^0 C to 30^0 C. Nevertheless, the Northern and Eastern regions sometimes experience relatively high temperatures exceeding 30^0 C and the South Western region sometimes has temperatures below 16^0 C.

The Central, Western and Eastern regions have two rainy seasons, from March to May for the first rains, and the second rains from September to November. The Northern region receives one rainy season from April to October, and the period from November to March has minimal rain. Most of the country receives between 750 mm and 2100 mm annually. The country has loamy soils with varying proportions of sandy and clay. In addition, it has varying vegetation with tropical rain forest vegetation in the South and savannah woodlands and semi arid vegetation in the North.

1.1.4 Culture and Religion

Uganda's population is made up of different ethnic groups with varying customs and norms. These play a major role in shaping the behaviours and ways of life of the people in the country. Some of the traditional values have changed due to the integration of the people as a result of migration and/or intermarriages. The cultural groupings, such as, Baganda, Basoga, Batoro, Banyoro, Itesoit etc are headed by traditional kings or chiefs who are not politically elected but have an indirect role in community governance and moral build up.

There are a number of languages spoken because of the many tribes in Uganda; however English is the official language. The Swahili language is being promoted in the spirit of Regional Socio-Economic Corporation, and integration of the East African Community.

The 1995 Constitution of the Republic of Uganda recognizes the freedom to practice any religion.

1.1.5 Education

Uganda's education system is both formal and informal. Under the formal system, the four – tier educational model is followed i.e. seven years of primary education, four years of ordinary level secondary education, two years of advanced level secondary education and the tertiary level of education. Each level is nationally

examined and certificates are awarded. University education is offered by both public and private institutions.

The Universal Primary Education (UPE) was introduced in 1997 to offer free education at the primary level. However, access to secondary and tertiary education is limited to only those who can meet the costs. There are plans by the Government to introduce Universal Secondary Education (USE) in 2007. The government also sponsors about 4,000 students every year through the public universities. In addition, the private sponsorship scheme is operational in the public universities. University education can also be obtained from any of the seven private universities in the country. In addition, a large number of institutions both private and public also offer tertiary education.

In addition to formal education there exists informal education to serve all those persons who did not receive formal education. Under the informal system, a range of practical/hands-on skills are imparted to those who have not gone through or only partially gone through the formal system of education. The majority in the informal system are the young adults and/or drop out and disadvantaged children. The Functional Adult Literacy (FAL) programme in the Ministry of Gender, Labour and Social Development also targets older people who did not get chance to go through formal training.

1.1.6 Macro economy

Uganda's economic performance was performing well in the early years of independence; with rapid economic growth and development. In the early post independence period (1962-1966), the economy grew at an average of 6.7 percent per year. By the end of the 1960's, commercial agriculture accounted for more than one-third of GDP and industrial output had increased to nearly nine percent of GDP, given the new food processing industries. In the early 1970's, the government targeted an annual GDP growth rate of about 5.6 percent. However, the political instability and associated economic mismanagement resulted in a persistent economic decline that left Uganda among the world's poorest and least developed countries.

In early 1980s, Structural Adjustment programs were introduced which led to strong economic growth of GDP. Hence, the period that followed showed a remarkable increase in productivity and output. This was given impetus by macroeconomic stability resulting from the macroeconomic reforms. The led to the economy reverting to its high GDP growth rates and low and stable inflation and interest rates from the

1990's to present. The PEAP target was for a GDP growth rate of 5.2 percent in 2003, and an average of 7 percent thereafter.

The economy of Uganda is primarily based on the agricultural sector, with over 70 percent of the working population being employed by the sector. Agricultural exports account for over 45 percent of the total export earnings with coffee, tobacco and fish continuing to be the main export commodities that bring in foreign exchange.

In the last 5 years, the telecommunication sector has been the fastest growing sector of the economy, and this is due to the expansion programs and increase in coverage by the major telecommunication companies in the country which have led to increased numbers of subscribers and providers of the services.

1.2 Sources of Data

The main data sources for establishing benchmarks for economic and social indicators for Uganda are censuses and surveys. Information is also obtained from administrative records.

1.2.1 The Earlier Population Estimates

Prior to 1900, there was limited information on Uganda's population. The first official population estimates of the Uganda Protectorate were made in 1900 and 1901, and gave a population at 2 million and 2.5 million respectively which were more or less accepted until the first census was carried out in the year 1911.

1.2.2 The Population Censuses 1911 - 1991

The population censuses in Uganda have been conducted in the years 1911, 1921, 1931, 1948, 1959, 1969, 1980, 1991 and 2002. The 1911, 1921 and 1931 population censuses were mainly administrative in nature, and for all the three censuses, separate enumeration procedures were made for the African and non-African population in the country. For the non-African population and for the Africans living on non-African premises, census forms were collected from their local administrative centres. The population census results of 1911, 1921 and 1931 were 2.5 million, 2.9 million and 3.5 million respectively.

The 1948 Population Census was the first scientific census to be carried out in Uganda. This was followed by the 1959 Censuses. During the two censuses, the African Population and the non African population were enumerated separately. The two censuses were followed by sample censuses of 10 percent and 5 percent respectively.

The sample censuses were intended to provide detailed data to help in the planning processes.

The first post independence census was conducted in 1969 followed by 1980 and 1991. The methodology used during these censuses was similar; people were enumerated where they spent the census night (De facto Census) and conducted simultaneously for Africans and Non-Africans. Two different types of schedules were used to collect the data. The first schedule contained limited questions and was administered at 100 percent coverage while the built in sample covered 10 percent of the rural areas and 100 percent of the urban areas and was intended to provide detailed data to aid in planning.

1.3 The 2002 Uganda Population and Housing Census

The 2002 Population and Housing Census was the most comprehensive census ever conducted in Uganda. The census collected data on the demographic and socio-economic characteristics of the population; household and housing conditions, agriculture; activities of micro and small enterprises; and the community characteristics. A structured questionnaire was administered to all households and the institutional population.

1.3.1 Census Implementation

The reference night (Census Night) was 12th/13th September 2002, and the actual enumeration was carried out between 13th and 19th September 2002. The enumeration was done by trained enumerators who canvassed the entire country and administered the questionnaires to the household head, or in his/her absence any other knowledgeable household member. Special arrangements were made to enumerate institutional, homeless and mobile populations. The census administered a standard questionnaire to all persons countrywide.

For purposes of presentation of the results, the country's 56 districts have been grouped into four regions namely Central, Eastern, Northern and Western. These are statistical groupings of districts without administrative or political status. In order to show a clearer trend, the 1980 and 1991 censuses data was redistributed according to the 2002 district boundaries and other lower administrative units.

1.3.2 Quality of the Census Data

Quality is important aspect of data as it enhances their credibility, increases their potential use and the benefits to be derived from them. Census data quality can be compromised by poor measurement of characteristics as well as poor quality control in implementation of methodologies. In particular, quality can be compromised through inadequate coverage, use of untested methodology and procedures,

inaccurate responses, high non response errors and data processing errors (editing, coding, data entry, tabulation, etc).

The 2002 census process paid attention to quality management and enhancement. In particular, special measures were taken to ensure quality census data. These included, among others:

- dividing up the whole country into compact and manageable enumeration areas which can be covered by one enumerator.
- producing enumeration area maps to avoid omission or double counting during enumeration
- ensuring that each enumerator exhaustively canvassed the assigned area.
- using simple and pre-tested questionnaires.
- preparation of an Enumerators' Instructions Manual to act as a full-time guide to the census enumeration.
- adequate publicity of the census exercise throughout the country.
- adequate training of all field staff lasting for a period of 6-7 days
- intensive supervision at all levels – parish, sub-county, district and national
- checking and editing the census questionnaires.
- 100 percent verification of all data entered into the computer.
- carefully checking all data for internal consistency as well as consistency with data from other sources.
- conducting a Post Enumeration Survey (PES) with the aim of measuring the magnitude, direction and sources of errors for the 2002 Census.

1.3.3 Exclusion of data from Kotido District

The final results showed that Kotido District had a very high population growth rate of 9.5 percent per annum and an average household size of 6.8 persons. These were much higher than what was observed for the same district in 1991 and for the neighbouring districts in 2002. UBOS carried out an investigation of the Census data and found that a number of indicators for Kotido district deviated from other reliable results obtained from other studies. A deeper review of a representative sample of the census data for the district revealed that there was a deliberate duplication of households and individuals to inflate the population figures.

Statistical methods were applied on the population of Kotido to come up with more reliable estimates of the population of the district as of 2002. UBOS subsequently adjusted the population of Kotido district downwards to be consistent with the results from other studies carried out around the same time. Despite this adjustment, it was not possible to have obtained detailed characteristics of the population and households.

Since most of the indicators from the district were not reliable, a decision was taken to carry out the census analysis without Kotido data. Thus, the indicators shown in this report exclude the figures for Kotido district apart from indicators on population size, growth and distribution.

Because of this, the analysis of population size and Growth is based on the total population of 24.2 million, while the rest of the analysis is based on the population excluding persons enumerated in Hotels and Kotido district, which was 23.8 million.

1.4 Organisation of the Report

This monograph is organized into five Chapters. Chapter 1 gives an introduction which includes the background to the census, the 2002 census processes, data quality and the organization of this report. Chapter 2 presents the sex and age composition of the population. Chapter 3 covers the fertility levels and trends while Chapter 4 gives the mortality characteristics. Chapter 5 presents the policy implications.

CHAPTER 2: SEX AND AGE COMPOSITION

2.1 Background

The age and sex structure represents the number of people of a given age and sex in society and is derived from the input of births, deaths and migration at every age. The analysis of age and sex structure is of importance to demographers because it affects fertility, mortality, migration and nuptiality. Changes in the total population are brought about by variations in levels and patterns of fertility, mortality and migration over time. The study of the current sex and age composition is useful in understanding the past trends of population change.

The Sex and age composition of a population has significant implications for the reproductive potential, human resource, school attendance, family formation, health care, and other aspects of service delivery in general. The numerical balance between the sexes in any population is a consequence as well as a determinant of several demographic, social and economic experiences of a population. The balance between sexes by age assumes particular interest in the context of productive and reproductive capacity.

2.2 Sex Composition of the Population

The Sex composition of the population is one of the basic demographic characteristics, and is a result of past levels and patterns of fertility, mortality and migration. Changes in sex composition largely reflect the underlying socio-economic and cultural patterns of a society.

The Sex ratio is defined as the number of males per 100 females. It is a relative number which compares the numerical balance between sexes irrespective of the population size, geographical location and time of enumeration. The Sex Ratio at Birth is fairly constant in a given population and therefore the difference in sex ratio at subsequent ages is a result of sex selective migration or mortality or a reflection of incompleteness during the enumeration.

2.2.1 Trends in Sex Ratio

Sex ratio has been decreasing since 1969 census

Table 2.1 shows the sex ratio for Uganda for the total population increased from 100.2 in 1948 to 101.9 in 1969 .Thereafter, there has been a consistent decline from 98.2 in 1980 to 95.3 in 2002. The sex ratio of Ugandans fell from 99.1 in 1969 to 95.1. The sex ratios for non-Ugandans are consistently higher than their Ugandan counterpart implying that more males than females migrate to Uganda.

Table 2.1: Trend in Sex Ratio by Nationality

Census Year	Ugandan*	Non Ugandan*	Total
1948	100.0	127.9	100.2
1959	100.8	113.7	100.9
1969	99.1	162.2	101.9
1980	na	Na	98.2
1991	95.9	119.9	96.5
2002	95.1	101.6	95.3

Note: na – not available

** Figures for 1948 and 1959 refer to African and Non-African Population*

2.2.2 Sex Composition by Age

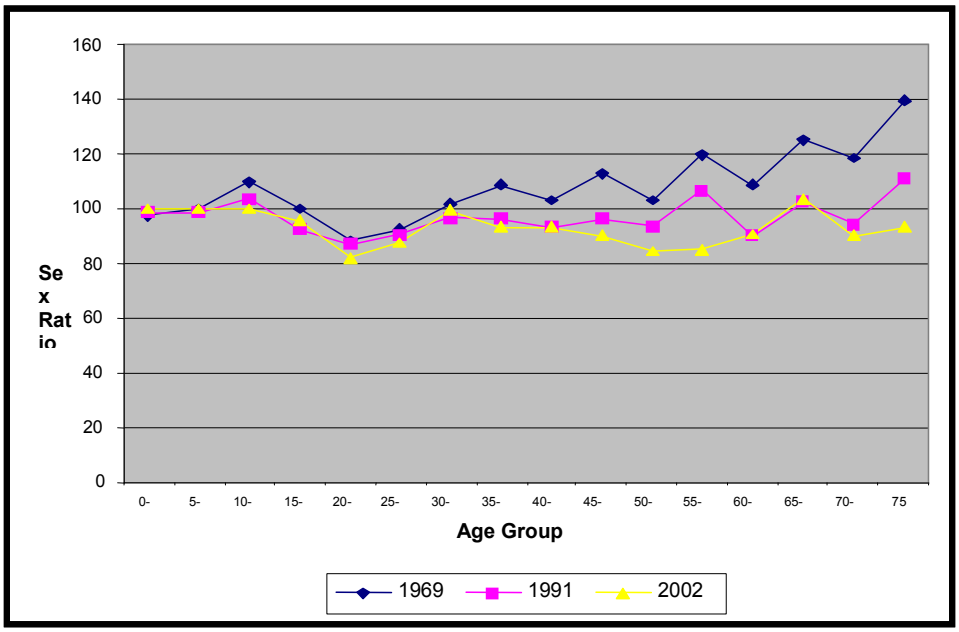
The sex ratios by broad age groups show a decline between the censuses of 1969 and 2002 (Table 2.2). The magnitude of the drop in sex ratios is more pronounced among the older persons (65 years and over) and minimal among those aged below 15 years. This is also true for the inter-censal periods 1969 to 1991 and 1991 to 2002. The consistent fall in the sex ratios for all broad age groups, cannot be attributed to age misreporting. The civil unrest the country went through could be partly the basis of the emerging findings, given that more males than females die during wars. The other likely explanations on the merging findings are due to excessive male mortality and migration.

Table 2.2: Age pattern of Sex Composition by Time Period, national

				Change in Sex Ratio	
Age group	**1969**	**1991**	**2002**	**1969- 1991**	**1991-2002**
0-14	101.5	100.1	100.0	-1.4	-0.1
15-24	94.6	89.9	89.5	-4.6	-0.5
25-64	103.4	94.5	91.7	-8.8	-2.9
15-64	100.4	92.6	90.4	-7.8	-2.2
65+	129.0	103.4	93.9	-25.6	-9.5
Total	**101.9**	**96.5**	**95.1**	**-5.4**	**-1.4**

Figure 2.1 presents the age pattern of the sex composition of the population of by age since 1969. Generally, there is a consistent drop in sex ratios between 1969 and 2002, except for age-group 0 – 4 years. During the period 1991 to 2002, a reduction is observed in all age groups with exception of those aged below 10, 15 -19, 30 - 34, and 40 - 44 years where the increases are marginal.

Figure 2.1: Sex Ratios by Age and Time Period



2.2.3 Spatial Differentials in Sex Ratio by Residence and Regions

Table 2.3 shows the sex ratios by residence as well as by regions. It is worthy noting that generally, the sex ratios for the urban areas are lower than those of their rural counterparts. This is a shift from the common phenomena of higher sex ratios in urban area than rural areas, given that urban areas attract more males in search of labour than females. However, both the rural and urban sex ratios registered a decline during the period 1969 to 2002.

Table A1.2 shows that in 2002 the sex ratio, varied from 94.4 in Eastern and Western to 96.6 in Central. The analysis of the sex ratios by district revealed a wider variation than that depicted at regional level. The districts of Kalangala, Kiboga, Moyo, Nakasongola, Yumbe and Hoima were male dominated (sex ratios in excess of 100), while the rest of the districts had female dominance. In all, 30 districts had sex ratios which are higher than the national average (95.3). Kalangala district had the highest sex ratio (149.8), while Kisoro showed the lowest (82.3) as a result of migration. The major economic activity in the district of Kalangala is fishing which mainly engaged into by males from within and outside the country. On the other hand, many males from Kisoro and Kabale districts migrate to other areas of the country in search of agricultural land and employment.

Table 2.3: Trend in Sex ratio by Residence and Regions

Residence/Region	Sex Ratio				Intercensal percentage change		
Residence	1969	1980	1991	2002	1969-1980	1980-1991	1991-2002
Urban	119.9	100.0	94.2	93.2	-19.9	-5.8	-1.1
Rural	100.7	98.0	96.8	95.6	-2.7	-1.3	-1.3
Region							
Central	113.6	103.7	99.2	96.6	-9.8	-4.5	-2.6
Eastern	99.7	97.0	96.3	94.4	-2.7	-0.7	-1.9
Northern	96.3	94.4	94.1	96.0	-1.9	-0.3	1.9
Western	96.6	96.4	95.5	94.4	-0.2	-0.9	-1.0
Uganda	**101.9**	**98.2**	**96.5**	**95.3**	**-3.7**	**-1.7**	**-1.2**

2.2.4 Inter-censal Changes in Sex Composition

Highest drop in sex ratio was between 1969-1980 censuses

The trend in sex ratio by residence and region is presented in Table 2.4. There was a decline in sex ratios for all inter-censal periods. A faster reduction in sex ratios (3.7 percent) was observed for the period 1969 to 1980 while only 1.1 percent reduction was recorded for the period 1991 to 2002. A decline in the sex ratio was observed for all intercensal periods for both rural and urban areas. The reductions in the sex ratio were higher in urban areas than their rural counterparts. The intercensal decline in sex ratios was more in the Central region than any other region. This is possibly due to male selective migration to economic opportunities in and around Kampala district.

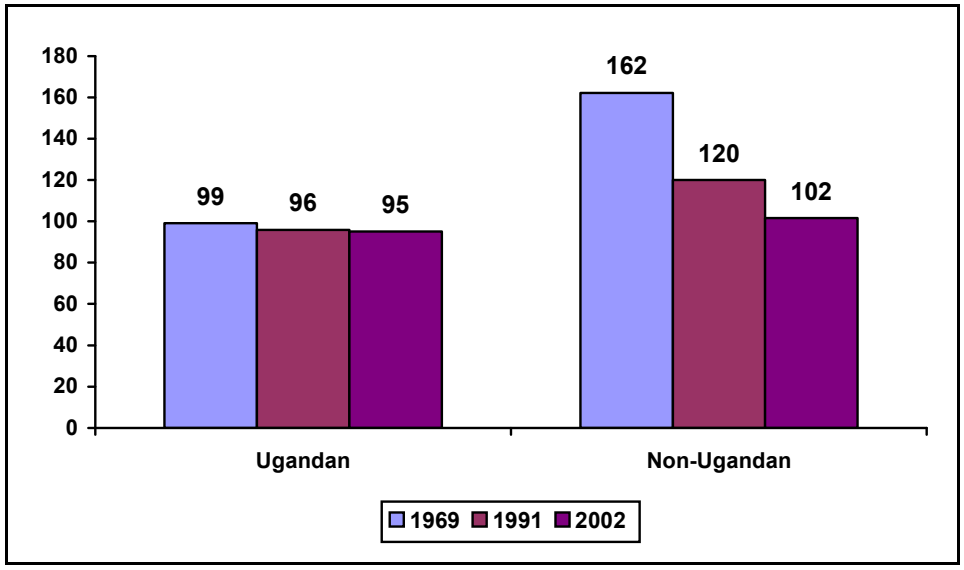
All regions reported a fall in the sex ratio between 1969 and 2002, with the Central region recording the highest intercensal decline. The Western region presents the lowest intercensal decline between 1969 and 2002.

Table A1.2 shows that during the 1991 – 2002 intercensal period, 43 out of the 56 districts registered a decline in their sex ratios. The highest increase was observed in Moyo (9.7 percent) while the biggest decline was recoded in Bundibugyo (5.3 percent)

2.2.4 Sex Composition by Citizenship

The trends of sex ratios by nationality are presented in Figure 2.2. Generally, the age specific sex ratios are higher for the non-Ugandans than their Ugandan counterparts. The reduction in the sex ratios revealed between 1969 and 2002 is attributed to more female non-Ugandans coming in the country in the recent past. Change in sex ratios were faster for the non-Ugandans and with very high magnitudes.

Figure 2.2: Trends of Sex Ratios by Citizenship



2.2.5 Sex Composition of Selected Sub-Populations

Sex ratio was highest in institutional population

The sex ratios of selected population sub-groups are presented in Table 2.4. For all religious groups (excluding the traditional and no religion) there were more females than men. The sex ratios by religion showed a variation from 83 for the Pentecostals to 135 for those with 'No Religion'. The sex ratios for the three religious groups of Seventh Day Adventist, Pentecostal, and 'Other Christians' were below the national average.

The table further showed that while the household population is almost evenly balanced by sex, the population enumerated in institutions was highly male dominated. The sex ratio for the institutional population was 138 percent compared to 95 percent for the household population. Among the household population, the category of heads was highly male biased with a sex ratio of over 300 percent. The rest of the household population have a sex ratio of only 74 percent.

Table 2.4: Sex ratios for population sub-groups, 2002

Population sub-Groups	Population ('000s)			Sex Ratio
	Male	Female	Total	
Religion				
Catholics	4,841.3	5,080.0	9,921.4	95.3
Church of Uganda	4,288.8	4,465.0	8,753.8	96.1
Seventh Day Adventist	176.5	191.1	367.6	92.4
Orthodox	17.4	18.1	35.4	96.1
Pentecostal	512.1	615.9	1,128.0	83.1
Other Christians	133.7	148.6	282.3	90.0
Moslem	1,449.6	1,504.2	2,953.8	96.4
Bahai	9.1	9.3	18.5	97.8
Other Non Christians	71.1	74.3	145.4	95.6
Traditional	51.0	41.9	92.9	121.6
None	81.6	60.5	142.1	135.0
Major Tribes				
Baganda	1989.3	2136.8	4126.1	93.1
Banyakole	1136.4	1193.5	2330.0	95.2
Basoga	992.6	1070.2	2062.8	92.7
Bakiga	814.9	864.5	1679.5	94.3
Iteso	766.7	800.2	1566.9	95.8
Langi	729.3	754.5	1483.8	96.7
Acholi	555.6	585.5	1141.1	94.9
Bagisu	550.1	567.1	1117.2	97.0
Lugbara	502.0	520.1	1022.1	96.5
Banyoro	326.3	340.7	667.0	95.8
Others	3268.9	3375.9	6644.8	96.8
Population Type				
Household Population	***11,492.3***	***12,107.5***	***23,599.8***	***94.9***
Head of household	3,391.9	1,125.4	4,517.3	301.4
Non-Household Population	***140.0***	***101.5***	***241.4***	***138.0***
Institutional				
Homeless				
UGANDA	**11,632.3**	**12,209.0**	**23,841.3**	**95.3**

2.3 Age Composition

The past levels of the three demographic factors namely fertility, mortality and migration are responsible for determining the present age and sex composition, and similarly, the current regimes will affect the distribution in future. The 2002 Census recorded information on age in completed years of every individual. In addition a question on exact date of birth was also asked to cross-check on the accuracy of the age reporting. The analysis of the age composition in this chapter is based on these records.

2.3.1 Evaluation of Quality of Age Data

Age data are associated with several reporting errors. The reasons for these range from outright ignorance of the exact age to deliberate misreporting due to digit preference. This pattern have been observed in sub-Saharan Africa have for a long time. Consequently, A number of methods can be used to evaluate quality of age data including the Myres, Bachi and Whiple's Index.

In this report, the Myer's Index is used because it gives both the digit specific preference indices and the overall index of misreporting. The index assumes that in a natural population with correct age reporting, the population in any digit 'x' will constitute 10 percent of the total population. In such a situation, the overall index will be zero. A negative value implies that the digit is deliberately avoided while a positive one indicates that the digit is preferred.

Table 2.5 presents the trend in Myer's index of preference which shows that age reporting is increasingly improving with the overall index falling from 30.3 in 1969 to 25.8 in 1991 and further to 15.3 in 2002. The table shows that the data on the ages of females were more poorly reported than for males in all censuses. The overall index of preference was 21.4 in 2002 compared to 17.1 for females. This shows that although there is improvement in age reporting, females continue to lag behind in the quality of reporting.

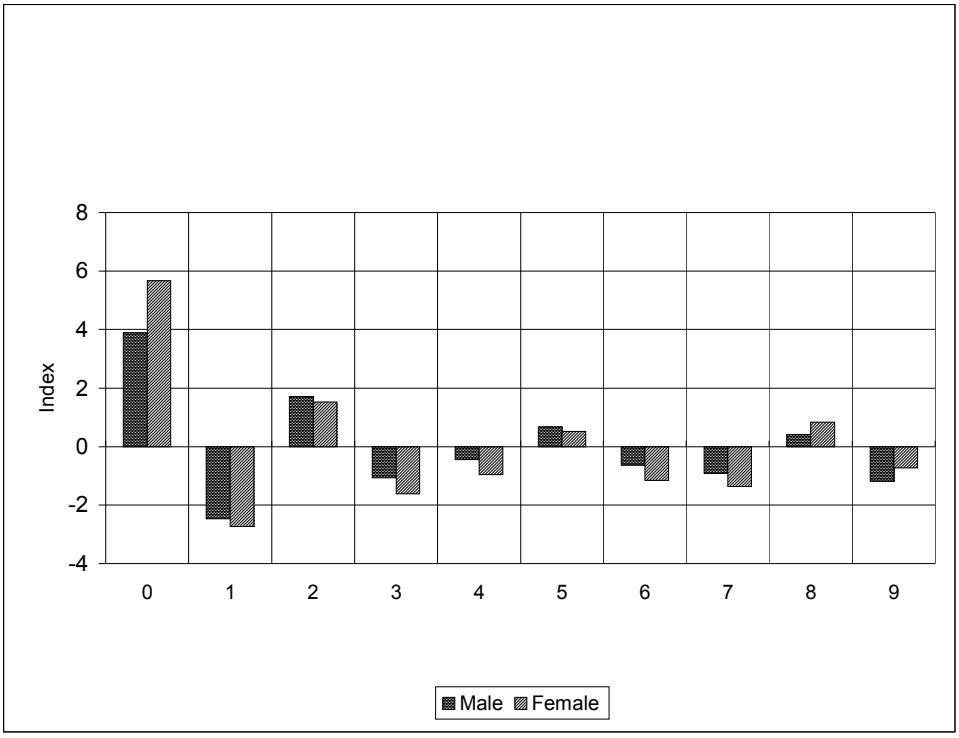
Table 2.5: Trend in Myer's Index of Digit Preference, 1969 - 2002

Year	Male	Female	Both sexes
1969	25.1	35.5	30.3
1991	21.4	30.2	25.8
2002	13.4	17.1	15.3

The age-specific indices reveal extensive heaping among ages ending with digit zero (Figure 2.7), followed by those ending in digits 2, 5 and 8. The heaping is more pronounced among females compared to the females. On the other hand, ages ending in Digits 1, 3, 4, 6, 7 and 9 were avoided with Digit 1 being most avoided.

Table A1.3 shows that the digit specific reporting has also improved over time. Digits '2' and '8' which were avoided in 1969 were preferred digits in 2002.

Figure 2.2: Myer's Digit specific Index of Digit Preference



2.3.2 Age Composition of the Population

The study of the age-distribution utilizes the broad age-groups reflecting populations being targeted by social development programmes such as adolescents (10 – 24 years), school-age population (6 – 12 years) among others. However, an analysis using the standard five year age-groups is done to support the demographic analyses in chapters 3 and 4.

The Broad Age Groups

More than half of the population were children below 18 years of age

Table 2.6 gives the distribution of the population by selected age categories. The table shows that the population of Uganda is youthful and is becoming even younger over time. The proportion of children (population below 18 years of age) increased from 51 percent in 1969 to 56 percent in 2002. The primary school age population (6 – 12 years) constituted 22 percent of the population in 2002 while the proportion of the older persons (aged 60 years or more) decreased from 5.8 percent in 1969 to 4.6 percent in 2002. Despite the decrease in the proportion, the actual number of older persons increased from 556,000 in 1969 to 1.1 million in 2002.

Table 2.6: Population of Selected Age Groups, 1969 – 2002

Age Category Index	1969	1991	2002
Population Aged 6 – 12 Years	22.7	22.3	21.9
Population Aged less than 15 Years	46.2	47.3	49.4
Population Aged Less than 18 Years	51.4	53.8	56.1
Population Aged 10 – 24 Years	27.8	33.3	34.2
Population Aged 13 – 19 Years	12.9	15.8	16.3
Population Aged 15 – 24 Years	16.2	20.0	19.9
Population Aged 18 – 30 Years	21.7	23.6	22.3
Population Aged 60 Years or More	5.8	5.0	4.6

** These age categories are NOT mutually exclusive and therefore do not add to 100 percent*

The Five year age Groups

Nearly half of the population was in the 14-64 age group

The distribution of the population by the standard five-year age groups is given in Table A1.4 and the summary presented in Table 2.9. The general pattern for all the three censuses reveals declining proportions as the age increases. This is typical of populations with high fertility levels. Overall, 49 percent of the population in 2002 were aged less than 15 years, three (30 percent were aged 65 years. The remaining 48 were in the working age brackets (15 – 64 Years).

Table 2.7: Percentage Distribution of Population by Sex and Age Group, 1969 - 2002.

Age			2002		
Group	1969	1991	Male	Female	Total
0-14	46.2	47.3	50.6	48.2	49.4
15-24	16.3	20.0	19.2	20.5	19.9
25-64	33.7	29.4	27.1	28.2	27.7
65+	3.8	3.3	3.1	3.1	3.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table A1.6 gives the age distribution of the population of the Regions/Districts. The Eastern region had the highest proportion of children (51 percent), while the lowest was in Central Region (48 percent). Just over 45 percent are in working age group while only 3.5 percent are 65 years or older. The pattern for Northern and Western regions are similar. At the district level, 27 districts had more than half of their population aged below 15 years of age.

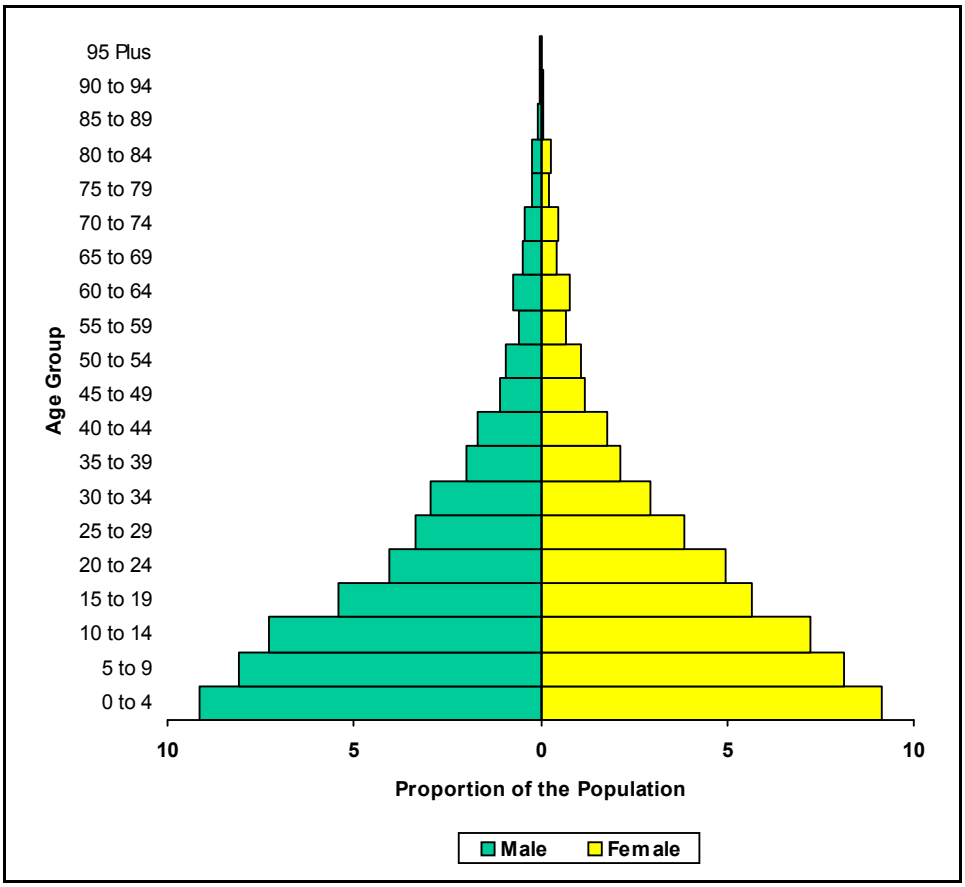
The Population pyramid

A population pyramid is a pictorial representation of the age distribution of a given population. Its shape is determined by the past birth and death rates in that population. Uganda's population pyramid (Figure 2.3) is broad based, which is a

characteristic of populations with high levels of fertility. The wide bars at the base show that fertility in this population is high and has not changed in the last twenty years.

The sharply receding bars in the age range 20 – 44 years, assuming no significant net outward international migration, is a reflection of high mortality. The fact that one side is almost a mirror image of the other, shows that there has been no major sex differential in mortality. The pyramid thins very rapidly to below two (2) percent from age group 55-59. This reflects the high adult mortality rates.

Figure 2.3: Population Pyramid in Five-Year Age Groups



Median Age

The Median Age is the age that divides the population into two numerically equal groups. Table 4.2 shows that the median age has been declining over time from 17.2 in 1969 to 15.3 in 2002. This is further testimony that the population is becoming younger. Table A1.6 shows no major variations in the median age by region. However, wide variations can be observed at the district level (Table A1.6). Kalangala district had the highest median age (22.9 years) followed by Kampala district (19.4 years). The districts of Kayunga, Bugiri, Mayuge, Kamuli and Iganga had median ages below 14 years. The rest of the districts had median ages between 14 and 17 years.

Table 2.8: Median Age and Dependency Ratio, 1969 - 2002.

Age Summary Measures	1969	1991	2002 Male	2002 Female	2002 Total
Dependency Ratio	101.1	102.5	--	--	110.2
Median Age	17.2	16.3	14.8	15.8	15.3

Age Dependency ratio

The were 11 dependants for every 10 persons of working age

The Age Dependency Ratio is a ratio of the persons in the economically dependant ages (population below 15 year and those 65 years and above) to those in economically active-ages (15-64 years)[1]. The analysis of the data revealed a national Dependency Ratio of 110 implying that on average there are 11 dependent persons for every 10 economically active persons. Table A1.6 shows that the Eastern region had the highest dependency ratio of 120, while the Central region had the least of 103. All districts except Kalangala, Kampala, Wakiso and Moroto districts had Age Dependency Ratios greater than 100, implying more dependants than economically active persons. The highest age-dependency ratio was recorded in Iganga district (133 percent).

2.3.3 Age Composition of Selected Sub-groups

Table 2.9 gives the age distribution of selected population sub-groups. The table shows that the Ugandan population was more youthful compared to non Ugandans. Nearly half of the population of Ugandans were under 15 years of age, while for non Ugandans the percentage was 43 percent for the 'Other Africans' and 31 percent for the non-Africans.

The table shows that the big-sub-populations have age distributions which are fairly similar to that for the country as a whole. On the other hand, the small sub populations such as the urban, non-household, non-Uganda and migrant populations

[1] Based on the ILO definition of economically active ages

have age structures very which are different from the rest of the population. They are generally characterized by high median ages.

Table 2.9: Percent distribution by Sex, Age Group and Citizenship

Sub-Population	Proportion of Population in the age group				Median Age
	0 - 14	15 - 24	25 - 64	65+	
Residence					
Rural	50.5	18.9	27.3	3.3	14.7
Kampala City	38.0	28.7	32.2	1.2	19.4
Other Urban Areas	43.8	25.2	29.2	1.8	17.4
Population Type					
Household	49.6	19.7	27.7	3.1	15.2
Institutional	28.8	37.3	32.3	1.6	20.2
Homeless	15.9	33.1	49.3	1.7	25.3
Ethnicity					
Ugandans	49.5	19.9	27.6	3.0	15.2
Other Africans	42.9	20.8	31.8	4.5	18.1
Non-Africans	29.6	14.5	52.5	3.3	27.8
Migration Status					
Non-Migrant	54.8	18.6	23.9	2.8	13.3
Life-time Migrant	22.5	26.1	46.9	4.4	25.5
Recent Migrant	36.8	32.4	29.7	1.1	19.4
Uganda	**49.4**	**19.9**	**27.7**	**3.1**	**15.3**

2.4 Summary

An evaluation of the quality of the age-sex data for Uganda reveals extensive heaping for ages ending in digit '0'. This is more pronounced in females than males. However, the quality of age reporting has been improving over time.

Uganda's population is increasingly becoming female dominated. The sex ratio increased up to 102 in 1969 then declined to 95.3 in 2002 implying that majority of Ugandans are females. There was a drop in the sex ratio of all sub-populations by region, residence and citizenship.

The population of Uganda is increasingly becoming younger. The proportion of children (aged less than 18 years of age) increased from 51 percent in 1969 to 56 percent in 2002. On the other end, the proportion of older persons decreased from 5.9 percent in 1969 to 4.6 percent in 2002. The median age declined from 17.2 in 1969 to 15.3 in 2002. Correspondingly, the Age Dependency Ratio increased from 101 percent to 110 percent.

No major differences are observed in age distribution by Districts. The Districts of Kalangala, Kampala, Wakiso and Moroto have age distributions which are different from other Districts. The Age Dependency Ratio is generally high except for a few Districts.

CHAPTER 3: FERTILITY

3.1 Background

Fertility indicators measure the frequency of child bearing in a given population, and thereby establish the magnitude and speed at which the women of that population are producing live babies. Such measures can tell when the population of a given country or region is expected to double if the observed pattern remains unchanged. This information has implications on the country's ability to create a development infrastructure. When fertility is high, coupled with low or declining mortality, the population will be growing at a very fast rate, meaning that the country will have to progressively invest a lot more to sustain its current standard.

Fertility indicators measure the frequency of childbirth in a given population. Such measures can tell how fast the population of a given country or region would increase. This information has implications on the country's ability to create a development infrastructure. High fertility coupled with low or declining mortality will lead to a fast growing population.

The PEAP acknowledges large family size as 'a significant cause of poverty', and attributes the high fertility levels as one of the factors responsible for increasing inequality and poverty between 2000 and 2004[2]. This is further confirmed by the UPPAP assessment that found that 'a large share of respondents saw large family sizes as one of the most important causes of poverty".

3.1.1 Sources of Data

The 2002 Census asked about the children ever born to women aged 12 – 54 years. In order to minimize the error of omission of children not living with their mothers, the children were classified by sex and were further classified into those living in the household, those living else where, and those that had died. In addition, every woman who had ever had a birth was asked the date of the last birth, sex of child and its survival status.

The 2002 Census information on the date of birth of the last child born alive to women. This is the better of the retrospective source of information on current fertility. However, an examination of the data reveals that despite the rigorous probing, the data are affected by some errors due recall lapse. Further, there is a tendency for women to under report their births as a result of several reasons including misunderstanding of the reference period, under reporting of dead births, deliberate under reporting of births. Under reporting of recent births leads to

[2] MFPED, PEAP 2004/5 – 2007/8, 2004

underestimation of fertility levels[3]. Consequently, indirect data (based on children ever born) are used to correct for this underreporting.

In addition to the 2002 census data, there are other data on fertility in Uganda from the previous population censuses of 1948, 1959, 1969, 1991 and surveys and the Uganda Demographic and Health Survey series of 1988/89, 1995 and 2000/1 are another source of fertility data. These will be presented to give a general comparative picture particularly in terms of fertility patterns.

3.2 Marriage patterns

Marriage is a leading social and demographic indicator of exposure of women to the risk of child bearing. It is deemed to be the major gateway to family formation and child bearing. In a low contraceptive country like Uganda, with only 18 percent of the currently married women using a modern family planning method[4], the duration of ones life spent in marriage has a direct reflection on the total period of exposure.

The 2002 Census defined marriage as "a union between a man and a woman who are living together as husband and wife whether or not they have been through any civil or religious ceremonies". Table 3.1 shows that marriage is a common practice in Uganda with nearly 60 percent of the persons aged 15 years or more were in a marriage union. The majority of the currently married persons were in monogamous unions. More than one third of the males and one fifth of the females had never married at the time of the 2002 Census. There were more males who had never married compared to the females as shown by a sex ratio of 153 percent. The reverse was observed for other categories of marital status with sex ratios less than 100.

Table 3.1: Distribution of Population aged 15 years and Above by Marital Status

Marital Status	Male	Female	Total	Sex Ratio
Never married	38.3	22.7	30.1	153.3
Currently married/cohabiting (monogamous)	48.6	49.2	48.9	89.6
Currently married/cohabiting (polygamous)	6.9	11.3	9.2	55.4
Widowed	2.0	9.6	6.0	18.4
Divorced/separated	4.3	7.2	5.8	54.5
All categories	**100**	**100**	**100**	**98.8**

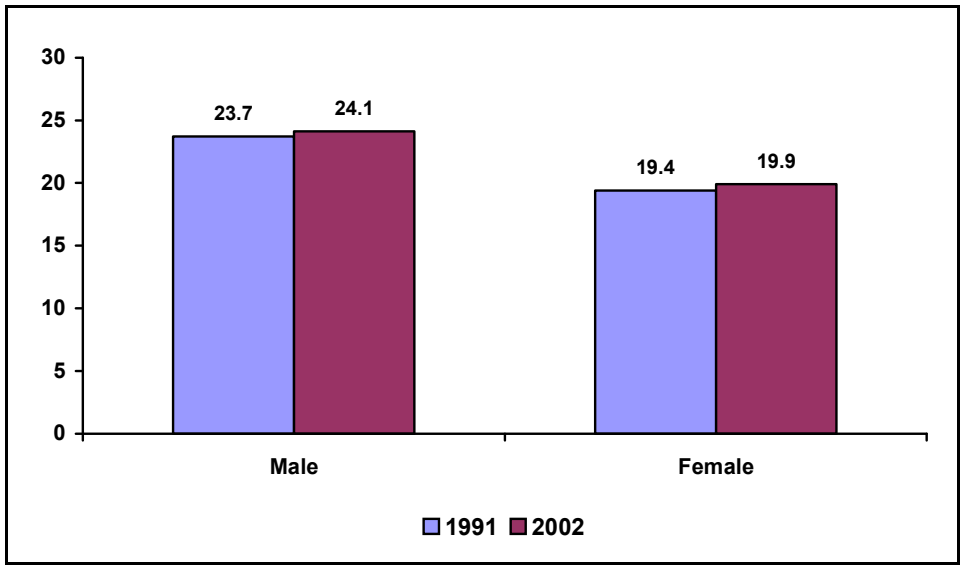
The Age at first Marriage gives the average number of years a woman spends before joining marriage, and hence triggering the onset of a constant risk of child bearing.

[3] United Nations, 1982. *Manual X*.
[4] UBOS, Uganda Demographic and Health Survey 2000 - 20 01

The 2002 census did not ask a direct question on age at first marriage. Therefore, a proxy measure, the Singulate Mean Age at Marriage (SMAM) was computed using the proportions 'Never Married' at the various age groups. This measure establishes the average duration of time that men and women in a given population spend in the 'never married' status. The measure therefore gives an approximate age at first marriage.

Figure 3.1 show that in general, besides marriage being universal in Uganda, it also starts early, particularly among the females. The Singulate Mean Ages at Marriage was 19.9 years for females and 24.1 years for males. This means that on average, Ugandan females stay only 20 years in the 'Never Married' status while their male counterparts stay for 24 years. The figure also shows minimal increase (less than one year) from the situation obtaining in 1991.

Figure 3.1: Singulate Mean Age at First Marriage by Sex, 1991 and 2002



Education delays marriage of females by about 7 years

Table 3.2 gives the SMAM by residence, education and religion which are believed to have an impact on the fertility of a woman. The table shows that females' early entry into marriage is closely associated with their level of educational attainment, either as a cause or a consequence. The Singulate Mean Age at Marriage (SMAM) was 18.2 years for women with no education and increases with level of education. The SMAM was observed to be 24.9 years for women with Post Secondary level showing a difference of 6.7 years between the SMAM for women with no education and those with post secondary education. Similar observations were made for males. Those

with no education enter marriage at an earlier age (SMAM was 22.9 years) than those with Post secondary (27.5 years).

Table 3.2: Selected Marriage Characteristics by Socio-economic Characteristics

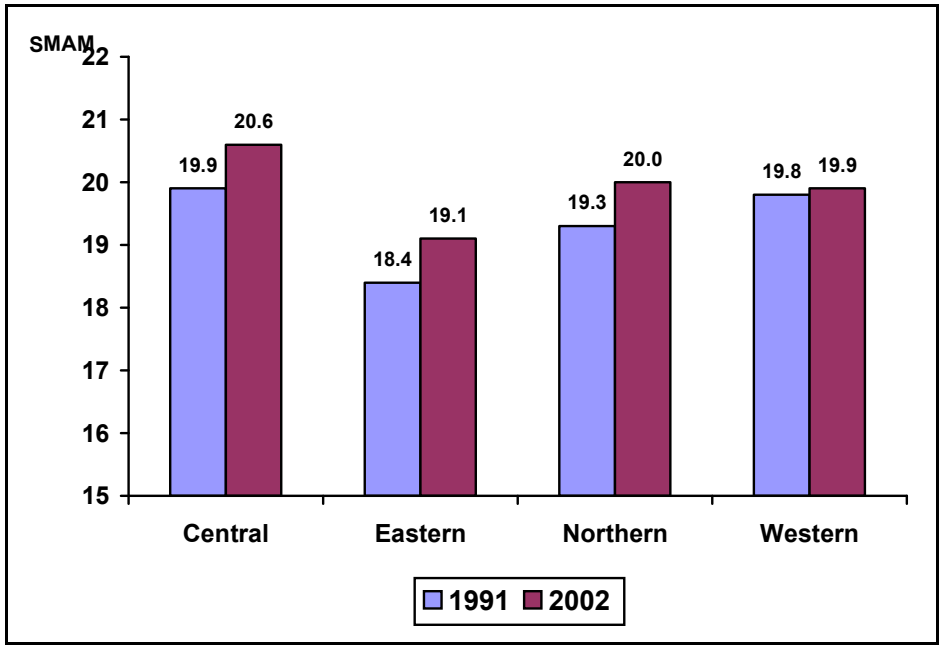
Characteristics of Population	Percent who are Currently Married *		SMAM*		Percent Ever Married (60 Years and Over)	
	Male	Female	Male	Female	Male	Female
Residence						
Urban	56.8	62.6	26.1	21.8	89.7	90.4
Rural	48.0	48.4	23.6	19.7	94.3	96.7
Educational Attainment						
No Education	64.3	66.4	22.9	18.2	93.3	97.0
Primary	55.5	62.3	23.1	19.4	94.6	94.9
Secondary	47.4	44.4	25.4	22.1	95.0	88.7
Post Secondary	63.0	51.1	27.5	24.9	93.4	83.9
Religion						
Church of Uganda	55.4	60.3	24.2	20.2	95.0	96.7
Catholics	55.6	60.7	23.9	20.1	93.4	96.2
Moslems	55.6	62.5	24.0	19.5	94.9	94.9
Others	55.6	59.4	24.3	20.6	91.5	95.5
Uganda	**55.5**	**60.6**	**24.1**	**19.9**	**94.1**	**96.2**

** For persons aged 15 years and over*

3.2.2 Regional and District differentials in the SMAM

Figure 3.2 gives the SMAM of females by region for the 1991 and 2002 Censuses. The figure shows that there was almost no change in the SMAM. The females in Central region, both on average spend slightly more time while still “Never married’ compared to the other regions. On the other hand, the SMAM was lowest for women in the Eastern region. The SMAM by Region and District are given in Table A1.8.

Figure 3.2: Singulate Mean Age at Marriage for Females by Region



3.3 Current Fertility

The current level of fertility is important as it presents the prevailing situation and hence of relevance to policy making. There are several indicators used to measure current fertility. However, this report presents three namely i) Crude Birth Rate (CBR), ii) Age Specific Fertility Rates (ASFR) and iii) Total Fertility Rate (TFR).

3.3.1 Crude Birth rates

The Crude Birth Rate (CBR) measures the incidence of births relative to the general population. From the 2002 census, the CBR was estimated to be 47 children per 1000 population. Although this is lower than that observed during the 1991 Census (52 births per 1000) and 1969 census (50.4) it still indicates very high fertility. One possibility here could be that Uganda's fertility is already taking a modest downward trend. On the other hand, it may be a reflection of differential data quality between the two censuses.

Table 3.3: Selected Fertility Indices, 1969 - 2002

Index	1969*	1988	1991*	1995	2000	2002*
Crude Birth Rate	50.4	--	52.1	47.8	47.3	47.0
Mean Age at Child Bearing	28.0	--	28.6	28.4	28.7	28.2
Total Fertility Rate	7.1	7.3	7.1	6.9	6.9	7.0

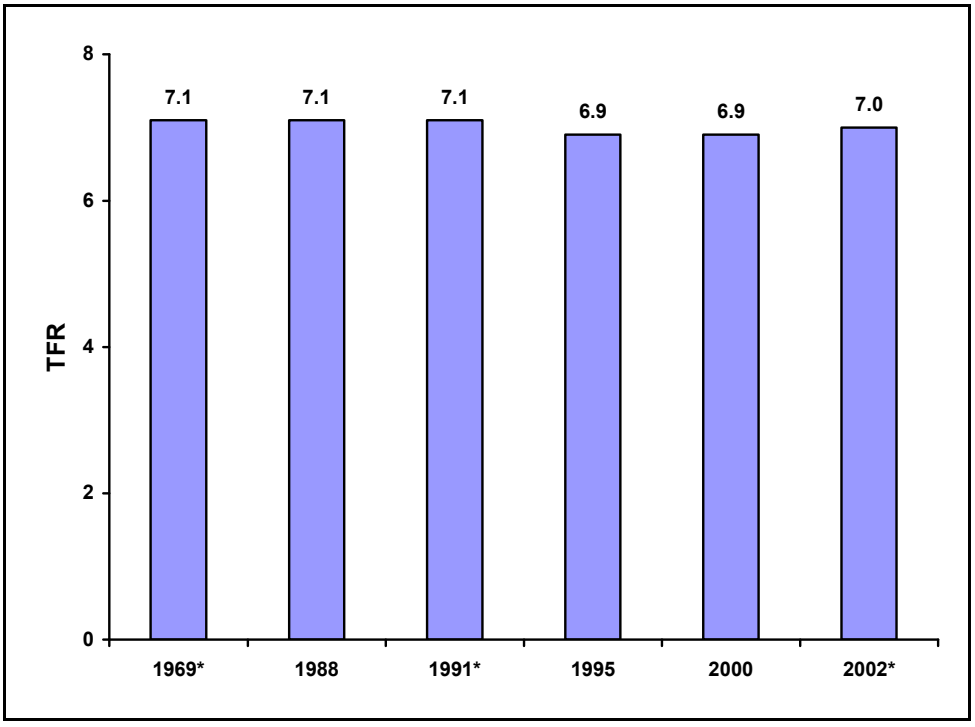
* *1988, 1995 and 2000 UDHS; 1969, 1991 and 2002 Population Censuses*

3.3.2 Total Fertility Rates

The Total Fertility Rate (TFR) is the number of live births (children) a woman will have born at the end of her reproductive life if she experiences the current age pattern of child bearing. The TFR for Uganda was 7.0 children per woman. Such a TFR implies that a Ugandan woman will bear more than 7 children by the time she comes to the end of her childbearing period. This is a very high fertility rate and was the second highest in Eastern Africa after Somalia (7.2)[5].

Figure 3.3 presents a comparison of total fertility rates for different years over the last 33 years as estimated from different data sources. The Figure shows that fertility in Uganda has remained high and constant over the last three decades.

Figure 3.3: Total Fertility Rates (TFR), 1969 – 2002



* *1988, 1995 and 2000 UDHS; 1969, 1991 and 2002 Population Censuses*

The Age Specific Fertility Rates (ASFR) measure the frequency of child bearing among women of different age groups within the reproductive ages (15-49 years). It gives the number of births per woman in a year. The ASFRs are a far more refined measure of fertility because they give the probability of a woman or group of women of a particular age having a live birth.

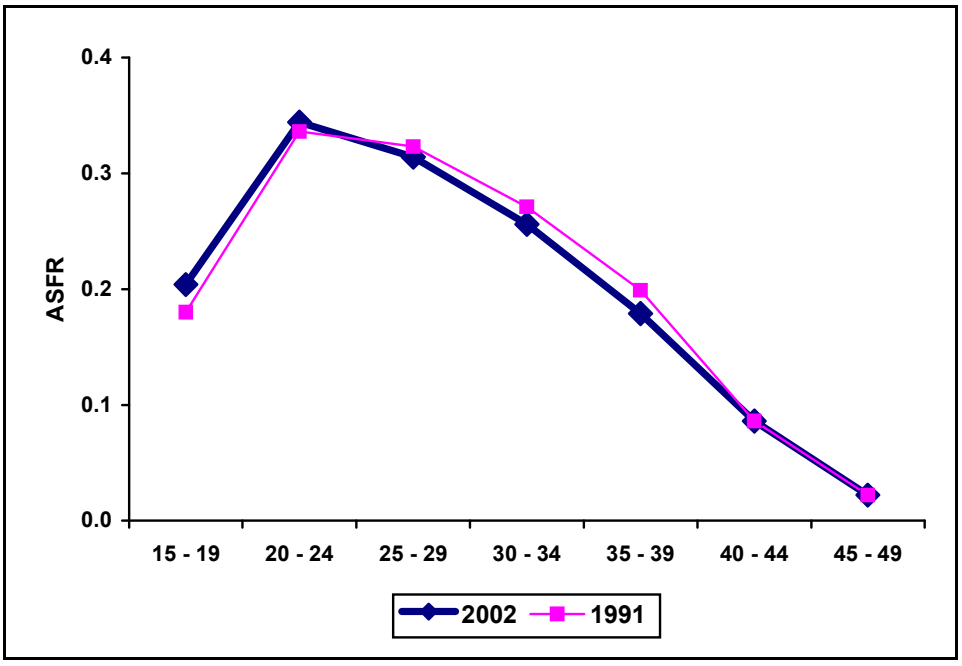
[5] PRB, 2002 World Population Data Sheet, 2002

The Age Specific Fertility Rates (ASFR) presented in Figure 3.4 show the high fertility pattern being experienced by Uganda's population. The pattern observed here shows that fertility starts early and has a very broad peak. In Uganda, childbearing starts early with women aged 15 – 19 years old having a rate as high as 0.204. In addition, childbearing peaks early, in the 20 – 24 years age group and the decline thereafter begins very slowly but accelerates with age to less than 0.1 after the age of 40 years.

When childbearing starts early, women are less likely to complete their education making it very difficult for them to develop careers later in life. The High levels of ASFR imply that there is lack or limited attempts to control child bearing (Family Planning).

Figure 3.4 shows that like the TFR, the age pattern of fertility in Uganda has not changed. The mean age of child bearing, showed minimal change from 28.6 years in 1991 to 28.7 in 2002 (Table 3.3).

Figure 3.4: **Age Specific Fertility Rates (ASFRs), 1991 - 2002**



3.4 Differentials in Current Fertility

The level and age pattern of current fertility are known to vary with a number of social economic characteristics of the population. Previous studies have shown that although Uganda has proven high fertility, there are some sub groups that have low fertility. Examining how and why these groups have lower fertility different from the general population information would be useful in the design of appropriate interventions to trigger a fertility transition in the general population. The sections below analyse Fertility differentials by education level attained, regions and districts and by religious affiliation. These differentials are examined on the basis of ASFR and TFR.

3.4.1 Differentials by Residence

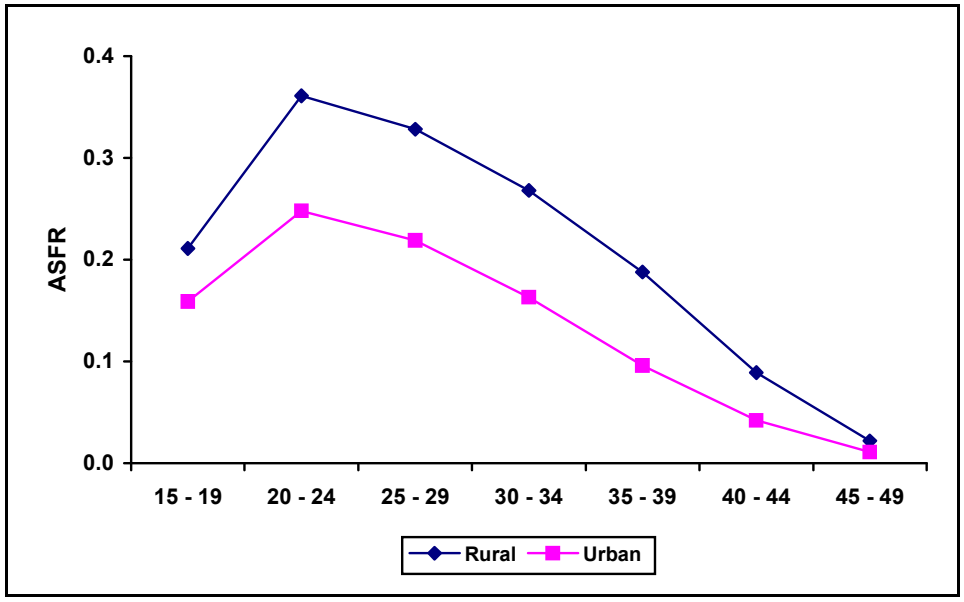
Urbanization is one of the factors that have been cited to influence the fertility of women. Table 3.4 presents the ASFR and TFR by place of residence, and shows that fertility rates vary by place of residence. The TFR among women in the urban areas was 4.7 compared to 7.3 children per woman in the rural areas who have.

Table 3.4: Age Specific and Total Fertility Rates (ASFR) by Place of Residence

	Age Specific Birth Rates							
Place of Residence	15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR
Rural	0.211	0.361	0.328	0.268	0.188	0.089	0.022	7.3
Urban	0.159	0.248	0.219	0.163	0.096	0.042	0.011	4.7
Uganda	**0.204**	**0.344**	**0.314**	**0.256**	**0.179**	**0.086**	**0.022**	**7.0**

Figure 3.5 shows that the pattern of child bearing is quite similar for both the women in the rural and urban areas. Thus, the effect of urbanization on fertility in Uganda is observed more in lowering the level of the TFR rather than affecting the age pattern.

Figure 3.5: Age Specific Fertility Rates (ASFR) by Place of Residence

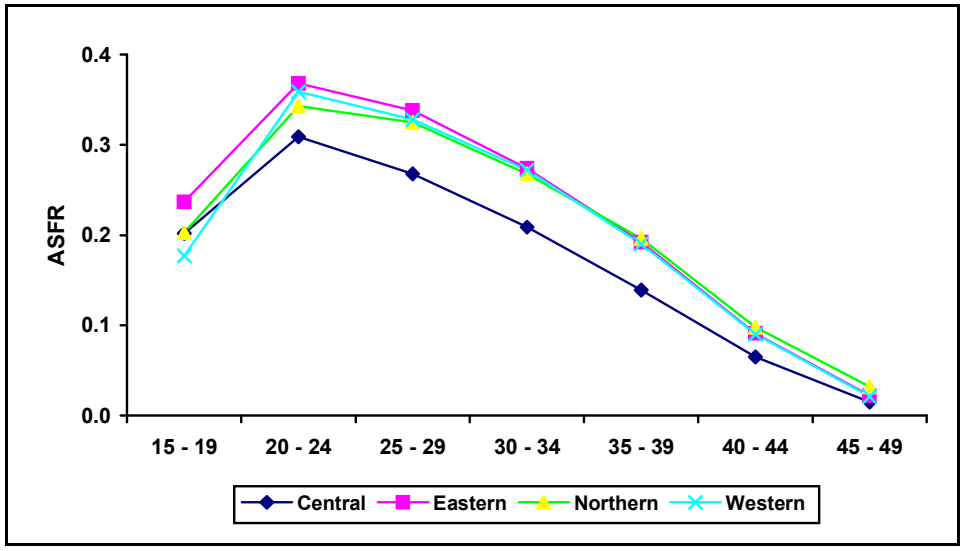


3.4.2 Differentials by District and Region

Table A1.7 presents the Total Fertility Rate and Age Specific Fertility Rates of the different regions and districts. There were marked fertility differentials among Regions and Districts. The TFR for Central region with the lowest (6 children per woman) while the rest of the regions had TFRs in excess of 7 children per woman with the Eastern region recording the highest fertility of 7.6 children per woman.

There were also marked differentials in fertility levels among districts. Kampala district registered the lowest TFR of 4.0 children, closely followed by Wakiso, with a TFR of 4.9. It is worth noting that 39 of the 56 districts have very high fertility of more than 7 children per woman. The highest fertility was recorded in Kibaale district with a TFR of 8.2 children.

Figure 3.6: Age Specific Fertility Rates (ASFR) by Region



3.4.3 Differentials by Education level

Secondary education reduces fertility by half

Table 2.5 presents the Age Specific Fertility Rates and Total Fertility Rates of the women by level of educational attainment. The table shows that the women without any education and those with only primary education reported the highest level of fertility of 7.3 children per woman. The women with secondary level of education reported considerably lower fertility of 5.2 children, and the TFR was even lower (3.4 children) for women with tertiary education. This means that education starts having an effect on fertility behaviour at secondary level. The marked difference between the fertility of the more educated and less educated women suggests that allowing women to realize their full education potential will reduce Uganda's fertility by nearly half.

The table further shows that for all levels of educational attainment childbearing starts early and has a broad peak. This is consistent with earlier findings that the effect of education on fertility is more in changing the level but and less on the pattern of fertility. .

Table 3.5: Age Specific and Total Fertility Rates (ASFR) by Educational Attainment

Education Level	Age Specific Birth Rates							TFR
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
No Education	0.276	0.338	0.311	0.251	0.180	0.086	0.023	7.3
Primary	0.205	0.371	0.327	0.267	0.185	0.087	0.020	7.3
Secondary	0.163	0.275	0.249	0.185	0.109	0.046	0.011	5.2
Tertiary	0.118	0.151	0.176	0.139	0.075	0.025	0.006	3.4

3.4.4 Differentials by Religion

Fertility does not show much variation across religious groups. Table 3.6 shows that all the major religious groups had a TFR of about 7 children. However, Moslem women tend to exhibit a slightly different age pattern with a much younger pattern of fertility.

Table 3.6: Age Specific Birth Rates (ASFR) by Religion

Religion	Age Specific Birth Rates							TFR
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Catholic	0.200	0.339	0.308	0.254	0.181	0.086	0.022	6.9
Anglican/Protestant	0.199	0.347	0.318	0.259	0.178	0.085	0.020	7.0
Moslems	0.231	0.346	0.306	0.245	0.164	0.078	0.023	7.0
Others	0.197	0.338	0.314	0.259	0.179	0.087	0.023	7.0

3.5 Parity and Completed Family Size

Parity refers to the number of children previously born alive to a woman. The mean number of children ever born by age of women is presented in Table 3.7. The table shows that among the adolescents aged 15 – 19 years, 30 percent had already had a child with 10 percent having had 2 or more children. Similarly, in the 20 – 24 year age group, 80 percent had already had a child with one third having had more than 2 children and 5 percent of the women had more than 4 children. Nearly half of the women in the 45–49 age group had had 8 children or more and a third of the women in the 50 – 54 age group had had 10 children or more. It should be noted that the childbearing age bracket was extended downward to 12 years. Even after this extension, only 36 per cent of the women were reported childless.

The completed family size is another important indicator in fertility analysis. It is obtained from the mean number of children borne born to women at the end of the reproductive period of life. The completed family size for the women in the age group 45 – 49 was 7.2 which is very close to the TFR of 7.0. This is further confirmation of that fertility levels of Uganda have stagnated over the last three decades.

Table 3.7: Percentage Distribution of Women by Number of Children Ever Born

Age Group	Number of Children Ever Born									MNCEB
	None	1	2	3	4	5	6	7	8+	
15-19	70.1	19.8	7.4	2.0	0.6	-	-	-	-	0.43
20-24	19.9	22.0	25.6	18.1	9.2	3.6	1.2	0.4	0.1	1.93
25-29	7.5	8.5	14.1	18.7	20.6	15.0	8.5	4.0	3.3	3.56
30-34	5.1	5.1	7.8	10.3	14.1	16.2	15.8	11.4	14.5	4.92
35-39	4.3	3.9	5.2	6.9	9.0	11.0	13.1	13.5	33.2	6.11
40-44	4.6	3.9	4.9	5.7	7.4	8.4	10.0	11.3	46.9	6.77
45-49	4.6	3.9	4.5	5.3	6.6	7.2	8.5	9.6	49.8	7.21
15 – 49										

MNCEB: Mean number of children Ever Born

3.6 High risk births

High risk births are those that are associated with the four "Too's" namely "Too Early", "Too Close", "Too Many" and "Too Late". The births that are considered Too Early are those born to women below the age of 20, "Too Close" are the births that are less than two years from the previous birth, "Too Many" are births born to women with four or more births, while the "Too Late" are births born to women aged 35 years or more. These high risk births are highly correlated with high fertility populations. Previous studies have shown that High risk births have a high probability of dying. They are a point of concern because they play a big role as causes of both infant as well as maternal morbidity and mortality.

54 percent of the births in the last 12 months were high risk births

The census did not ask for women's birth histories, therefore dimension of 'too close' cannot be investigated. Table 3.8 shows that out of the 1.1 million children born in the 12 months prior to the 2002 Census, more than half (54 percent) were 'high risk' births. The UDHS 2000 – 01, which used a birth history approach, was able to capture the births that were "too close" and it gave a figure of 67 percent. Thus the low figure does not necessarily mean a decline in proportion of high-risk births but rather a difference in methodology. The biggest category is births to women with more than 4 births, which constituted about one third of all the births. High-risk births are more likely to be born to women in rural areas, those who have never married and those with lower levels of education.

Table 3.8: Proportion of Births in the Last 12 Months that were of High Risk by Type

Characteristics of Women	High Risk Category			
	Too Early	Too Late	Too Many	All Categories*
Residence				
Urban	21.5	3.4	17.9	41.2
Rural	18.7	6.3	35.2	55.2
Marital Status				
Never Married	54.8	1.7	6.4	61.8
Married	14.0	12.6	37.2	52.5
Widowed/Divorced/Separated	11.0	19.7	38.5	53.1
Education				
None	11.1	19.3	45.7	58.9
Primary	21.6	9.7	32.2	54.7
Secondary	27.8	4.6	15.4	44.2
Above secondary	4.2	8.0	14.0	21.7
All Women	**19.0**	**6.0**	**33.3**	**53.7**

** Some births fall in more than one risk category. Therefore, this figure is NOT a sum of the three categories*.

3.7 Adolescent Motherhood

Adolescence is the period of life during which young boys and girls progress to adulthood. All persons aged 12 to 19 years at the time of the census were considered to be adolescents.

Table 3.9 presents the proportion of adolescents in Uganda who were mothers at the time of the census. The Census 2002 revealed high adolescent motherhood in Uganda. Out of the 2.4 million of females aged 12 to 19 years, 18 percent had already had at least one child. Adolescent fertility was slightly higher in rural areas (18 percent) as compared to urban areas (15 percent).

Adolescent fertility showed some minor variation by region district as seen in Table A1.8. The Eastern region had the highest proportion of adolescents who were mothers (21 percent) followed by Northern (19 percent). The Western region had the lowest proportion (14 percent).

Adolescent fertility varied quite widely by district. The proportions ranged from 32 percent for adolescents in Kalangala district to six (6) percent for those in Kabale district. There were only 8 districts in which less than ten percent of the adolescents were already mothers. These are: Kabale, Rukungiri, Adjumani, Bushenyi, Kisoro and Moyo and Ntungamo.

Education serves to reduce the level of adolescent fertility. Among females at school, only one in twenty (5 percent) were mothers compared to 41 percent among those who left school. Among those out of school, the proportion of adolescent mothers decreases as the level of education increases. However, adolescents with no education at all, have a lower proportion of adolescent fertility.

Table 3.9: Prevalence of Adolescent motherhood

Characteristic of Adolescent	Women who are 12-19 Years ('000s)	Women who have had a birth ('000s)	Percent who have had a birth	Contribution to Adolescent Motherhood
Residence				
Urban	350.3	54.1	15.4	13.15
Rural	2,001.7	357.4	17.9	86.85
Marital Status				
Never Married	1,921.7	148.8	7.7	36.2
Married	404.0	245.5	60.8	59.7
Widowed/Divorced/Separated	26.3	17.2	65.6	4.2
Education				
At School	1,545.6	80.6	5.21	19.6
Left School	806.5	330.9	41.0	80.4
Primary	1773.8	258.5	14.6	52.3
Secondary	375.9	80.1	21.3	10.8
Above secondary	11.0	2.4	22.2	0.2
Never been to School	191.3	70.5	36.8	17.1
All Women	2,352.0	411.5	**17.5**	100.00

3.8 Infertility and Childlessness

Infertility is a medical condition which cannot be easily established. However, the Ugandan society is characterized by early and almost universal marriage as well as high fertility. Therefore, having had no children at the end of ones reproductive life is unlikely to be voluntary and is taken as a proxy for infertility. If infertility is high in a given population, it could be said that it is not realizing its full fertility potential but there can be a possibility of fertility going up as these undesirable conditions that lead to infertility are brought under control.

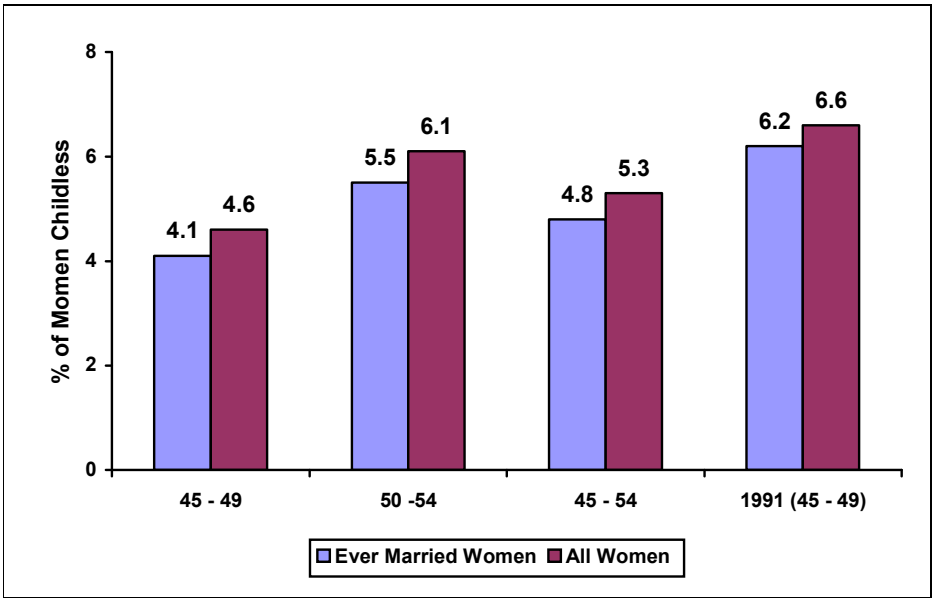
One in every 20 women were infertile

Table 3.7 shows that the proportion of women reporting no births declines drastically from 70 percent among women aged 15 – 19 years to eight (8) percent among those aged 25 – 29 years. Thereafter, it declines slowly attaining stability after the age of 40 years. Figure 3.7 shows that about five (5) percent of the women aged 45 – 49 years (hence at the end of their reproductive life) had never given birth, while the proportion for those aged 50 – 54 years was six (6) percent. Given that marriage is almost universal in Uganda, it can thus be assumed that five (5) percent of the women in

Uganda are infertile. A drawback in this assumption is raised by those women who lose children at very young ages and report themselves childless.

The level of childlessness in a normal population is taken to be between 2 and 4 percent[6]. Although the level of childlessness in Uganda is slightly higher than normal, it is neither large nor alarming. Even if reduced, it is unlikely to have substantial effect on the level of fertility.

Figure 3.7: Proportion of Women aged 45 – 54 Years who were childless



3.9 Summary

Marriage is the most common gateway to family formation and subsequently child bearing. The data indicate that marriage in Uganda is almost universal, and that it begins much earlier among females than among their male counterparts. The Fertility levels have remained high at around 7 children per woman, with minor variations observed by religion. However, wide differentials in fertility were observed by the level of education attained, district and place of residence.

In general, the study of fertility differentials shows that although some populations have lower fertility than others, the age pattern is not very different. Every sub-population is characterized by an early and broad peak. The only exception to this generalization is in the case of women with post secondary education where the peak of fertility is a bit delayed.

[6] Shryock H.S and Siegel J.S, The Methods and Materials of Demography Condensed Edition

More than half of the births that took place in Uganda in the 12 months preceding the census were associated with some form of 'risk'. The most common risk arises out of births that are 'too many' i.e. to mothers who already have four children or more.

CHAPTER 4: MORTALITY

4.1 Background

Mortality data is useful in assessing the overall health of the population of a country. Mortality statistics provide baseline indicators from which health profiles can be constructed and health policies formulated. Infant and childhood mortality is highly sensitive to the socio-economic changes in the country. Therefore, studying levels of mortality provides an indirect measure of the welfare of a given population.

4.1.1 Sources of Data

Mortality data in Uganda, as is with the rest of Africa, has been characterized by poor quality. Most African countries lack a functional Birth and Death Registration System, and depend on data collected retrospectively in censuses and surveys for mortality estimation. The 2002 Census collected four 'independent' sets of information that were collected retrospectively to give plausible estimates of mortality and they include:

- Deaths that occurred in the household in the 12 months preceding the census.
- Children ever born to women aged 15 – 49 years, and their survival status
- Date of birth of the last born child alive to women aged 15-49 years and their survival status
- Survival status of biological parents

It should be noted that although census data is useful in estimating trends of mortality over a long period of time, it may miss shocks that are limited in time and cause effects (sharp increases or decreases) in mortality. Such shocks are best analyzed using short time spells such as the demographic and health surveys that take place after every 5 years.

Besides the 2002 census, there are data on mortality in Uganda from previous population censuses of 1948, 1959, 1969, 1991 and surveys. The Uganda Demographic and Health Survey series of 1988/89, 1995 and 2000/1 are another source of mortality data and its important to give a general comparative picture particularly in terms of mortality patterns.

4.1.2 Quality of data

The 2002 Census collected information on deaths in the 12 months prior to the census, which gives a direct estimate of the recent mortality experience of the country. Reported deaths collected retrospectively during censuses have not been known to give reliable and plausible estimates because they are generally affected by various biases. The direction of bias has mainly been to under estimate mortality

especially at infancy and because there are no adequate techniques to correct for under reporting of deaths.

According to the results, a total of 332,000 deaths were reported to have taken place in the 12 months prior to the census. The information shows that 56 percent of the deaths were male while 44 percent were female. However, past experience has shown that such data are associated with high levels of under reporting especially in the young ages[7]. The completeness of death reporting was estimated at 63 percent for females and 74 percent for males using the Brass growth balance method. From Table 4.1, it is clear that the degree of completeness of female deaths by the three methods is remarkably close. The wide difference in the estimated degrees of completeness for the males by the three methods might be a reflection of the untenable assumptions in the case of the males.

Table 4.1: Estimated Percent of Completeness of Death Registration, 2002

Sex	Growth Balance of Brass (OLS)	GGB of Hill (OLS)	GGB of Bhat(TLS)
Male	74.2	63.1 (102.6)	62.0 (101.0)
Female	63.0	61.0 (98.4)	59.6 (98.6)

Note: the figures in parenthesis are the extent of completeness of the population count in 2002 relative to the population count of 1991 census.

A review of the data indicated that the implied level of mortality is lower than the estimate from children surviving/ children ever born data even after adjusting for the effect of AIDS. Therefore, the data are not used in isolation for mortality estimation. However, when complemented with indirect data, it is assumed that the data can give an age pattern of mortality as well as an estimate of adult mortality after the relevant adjustment techniques are applied.

These indirect sources of information use predetermined models to generate indirect estimates which refer to a time period approximately 5 – 15 years, and are not a good reflection of the current mortality situation. This is further exacerbated by models developed before the advent of the HIV/AIDS epidemic, whose impact is highly age selective. Several modifications have been developed to adjust the indirect estimates for the effect of AIDS.

[7] *United Nations, Manual X Indirect Techniques for Demographic Estimation, 1983.*

4.2 Estimation Procedure

Traditionally, data on Children surviving, children ever born and survival status of parents have served as the best sources of mortality estimation for developing countries for over 30 years. However, these cross sectional estimates are believed to under estimate the levels of infant, under five and adult Mortality Rates. Lately their efficacy is further reduced by the prevalence of the AIDS epidemic, because of the lack of adequate techniques to adjust for the possible biases, which the AIDS epidemic may have introduced in the indirect mortality estimates.

An analysis of the available data suggests that no single data source is adequate to provide a plausible estimate. The report believes, an average of the estimates derived from children surviving/children ever born, parental survival status (Is father/mother alive) as well as deaths in the last 12 months (adjusted and unadjusted) gives a plausible estimate of childhood mortality. The estimation of adult mortality uses information on survival status of biological parents. The proportions are converted into survival probabilities using the Timaeus regression equations. The resultant life Tables are given in Tables 4.2a and 4.2b. The indices presented in the subsequent sections of this report are derived from the abridged life time constructed.

Table 4.2a: Abridges Lifetable for Uganda, Males

Age	Life Table Survivors	Probability of Dying	Life Table Population	Expectation of Life
X	Lx	nqx	nLx	ex
Males				
0	1.0000	**0.0910**	0.9384	**48.80**
1	0.9090	0.0785	3.4637	52.65
5	0.8376	0.0230	4.1352	53.00
10	0.8184	0.0120	4.0682	49.20
15	0.8085	0.0162	4.0099	44.76
20	0.7954	0.0297	3.9180	40.46
25	0.7718	0.0556	3.7516	36.62
30	0.7289	0.0702	3.5166	33.63
35	0.6777	0.0791	3.2548	30.98
40	0.6242	0.0846	2.9888	28.43
45	0.5714	0.0940	2.7225	25.82
50	0.5177	0.0930	2.4680	23.24
55	0.4695	0.0943	2.2369	20.37
60	0.4252	0.1266	1.9917	17.23
65	0.3714	0.1599	1.7086	14.36
70	0.3120	0.2205	1.3881	11.62
75	0.2432	0.2742	1.0495	9.20
80	0.1766	0.3551	0.7260	6.73
85	0.1139	1.0000		4.06

Table 4.2b: Abridges Lifetable for Uganda, Females

Age	Life Table Survivors	Probability of Dying	Life Table Population	Expectation of Life
X	Lx	nqx	nLx	ex
Females				
0	1.0000	**0.0842**	0.9413	**52.02**
1	0.9158	0.0721	3.5043	55.78
5	0.8497	0.0201	4.2016	55.99
10	0.8326	0.0105	4.1422	52.09
15	0.8239	0.0147	4.0891	47.62
20	0.8118	0.0299	3.9981	43.29
25	0.7875	0.0551	3.8288	39.55
30	0.7441	0.0670	3.5956	36.71
35	0.6942	0.0686	3.3519	34.17
40	0.6466	0.0669	3.1247	31.51
45	0.6033	0.0715	2.9087	28.58
50	0.5602	0.0687	2.7047	25.59
55	0.5217	0.0748	2.5109	22.30
60	0.4827	0.0970	2.2963	18.90
65	0.4358	0.1278	2.0399	15.66
70	0.3801	0.1835	1.7262	12.59
75	0.3104	0.2244	1.3777	9.85
80	0.2407	0.3315	1.0041	6.98
85	0.1609	1.0000		4.21

4.3 Mortality Levels and Trends

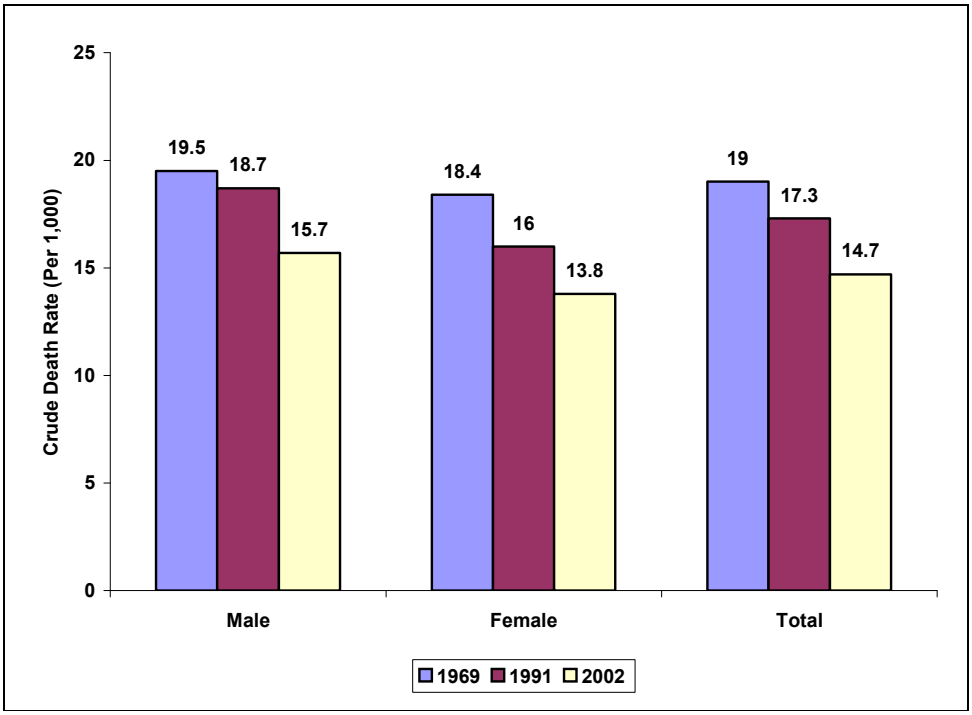
In this report, several measures are used to measure the mortality situation in Uganda. These include the Crude Death Rate, Infant and Childhood Mortality Rates and the Life Expectancy at Birth. The mortality indicators are part of those indicators being monitored by the PEAP and the MDGs.

4.3.1 Crude Death Rates

Crude Death Rate was 15 per 1000.

A Crude Death Rate (CDR) refers to the number of deaths in a given year divided by the mid-year population of the same period. The rate is normally expressed per 1000 population. Figure 4.1 shows that the national Crude Death Rate was 14.7 deaths per 1000 population per year. The estimates presented in the Figure show a declining trend in mortality among the population as compared with the 1991 and 1969 censuses estimates which were 17.3 and 19.0 respectively. The mortality rates for males were higher compared to those of females for the last three censuses.

Figure 4.1: Crude Death Rate by Sex, 1969, 1991 and 2002



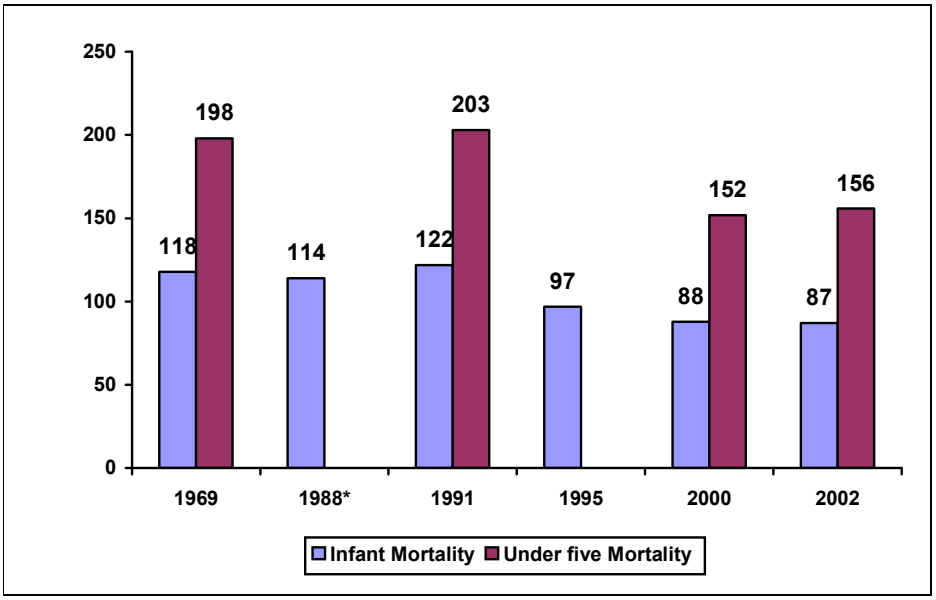
The Crude Death Rate being a general therefore has the limitation of not showing the mortality experience of different age groups. Thus, it is not very appropriate for policy intervention.

4.3.2. Infant and Childhood Mortality

The Infant Mortality Rate (IMR) gives the probability that a newly born child will not survive to the first birthday, while the Under five Mortality Rate (CMR) is the probability that a child born will not survive to the fifth birthday.

The Infant Mortality Rate (IMR) was estimated at 87 deaths per 1000 live births for the five years preceding the 2002 Census (Table 4.3). The PEAP target is to reduce the IMR to 68 per 1,000 by the year 2007/08. The under-five mortality estimate from the census was 156 deaths per 1,000 over the same period of time.

Figure 4.2: Childhood Mortality, 1969 - 2002



* *Figure was recalculated using Indirect methods*

These estimates reflect some decline in childhood mortality rates when compared with other estimates derived from the 1991 Census. Despite the decline, the levels of mortality are high when compared with IMR estimates of 51 and 55 in Southern and Northern Africa respectively for 2002.

Table 4.3: Childhood Mortality by Sex, 1969 - 2002

	Infant Mortality Rate			Under Five Mortality Rate		
Year	Male	Female	Total	Male	Female	Total
1969	129	110	118	211	189	198
1991	131	112	122	216	194	203
2002	91	84	87	160	152	156

4.3.3. Adult mortality

Adult mortality refers to death of persons who are aged 15 years and above and is measured as a rate of number of deaths per 1,000 population. The life expectancy at birth gives a summary measure of the mortality experience of the population at all ages. Life Expectancy at Birth is an estimate of the average number of years a person is expected to live if the current mortality pattern is maintained.

There was a gain of 2 years in Life Expectancy at Birth between 1991 and 2002

The findings in Table 4.4 show that the life expectancy at birth was 50.4 years. In comparison with previous estimates, the current findings suggest that there was a gain of 2.3 years in an 11-year period (1991 - 2002), while between 1969 to 1991, there was only a gain of 1.6 years. The estimates derived from the 2002 census

suggest slight improvement in the health status of the population especially among children.

Table 4.4: Life Expectancy at Birth by Census Year and Sex, 1969 - 2002

Census Year	Male	Female	Total
1969	46.0	47.0	46.5
1991	45.7	50.5	48.1
2002	48.8	52.0	50.4

It should be noted that between 1969 and 1991, the males experienced a decline in life expectancy at birth while the female experienced a modest gain of 3.5 years. The difference in behaviour is a reflection of exposure of males to excessive mortality arising out of the civil strife in the country in the decade preceding the census.

In terms of adult mortality indicators, the expectation of life at age 15 was 46.2 years for both sexes (47.6 years for females and 44.8years for males). This was drop from the 48.2 years (50.3 for females and 46.1 for males) observed in 1991. Thus, the modest gain in life expectancy at birth was mainly driven by the improvement in the childhood mortality. Other adult mortality measures computed are probabilities of death ${}_{45}q_{15}$ (that is, the conditional probability of death by age 60 given survival to age 15), ${}_{35}q_{15}$, and ${}_{35}q_{30}$. The first statistic is computed because it has become a standard indicator of adult mortality and the second and third statistics are computed for comparison with estimates derived from survival of parents and siblings (Feeney, 2001). Another measure given is the probability of surviving from birth to age 60.

4.4 Summary

An analysis of the available data suggests that no single data source is adequate to provide a plausible estimate. The report believes, an average of the estimates derived from children surviving/children ever born, parental survival status (Is father/mother alive) as well as deaths in the last 12 months (adjusted and unadjusted) gives a plausible estimate. The Infant Mortality Rate for both sexes was 87 per 1000 live births (84 per 1000 for females and 91 per 1000 for males) and a corresponding under-five mortality rate of 156 per 1000 live births (150 per 1000 for females and 162 per 1000 for males).

The over all mortality rate as measured by the expectation of life at birth indicates a level of 50.4 years for both sexes, 52.0 years for females and 48.8 years for males. The corresponding crude death rate for the period 1996 to 2001 for both sexes is estimated to be 14.7 per 1000 (13.8 per 1000 for females and 15.7 for males).

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CHAPTER 5: POLICY IMPLICATIONS

This chapter summarises the policy implications based on the preceding analysis and related studies, and derives messages that are useful in the monitoring of the PEAP and MDGs.

Rationale for controlling and monitoring population size, growth and migration to sustain economic growth

The population growth rate of 3.2 percent registered during the intercensal period 1991 to 2002 is the second highest ever recorded in Uganda and currently one of the highest in the world. Such a high population growth rate has major implications on the demand for social services and places a huge burden on the already limited budget of the sector. It is recommended that government should step up policies and programs to manage the population growth. In particular, sustainance of support for family planning would lead to reduction of the family size which in turn reduces the age dependency ratios.

Continuous and concrete Birth and Death Rate (BDR) is the best source of fertility and mortality data which are inputs into population projections. In addition BDR registration would give the latest information for small areas. Government should therefore support and strengthen the Birth and Death Registration exercise to enable the country have up to date indicators on the population.

Though fertility in Uganda is high, it is not uniform across sub-populations. Policies to be put in place to target reduction in fertility levels are best aimed at the married women especially in the rural areas and those with primary or no education.

List of References

Population Reference Bureau (PRB), 2002 World Population Data Sheet

US Bureau of Census, Global Population Profile, 2002

MFPED, Poverty Eradication Action Plan (PEAP) 2004/05 – 2007/08, 2004

Republic of Uganda, The 1995 Constitution of the Republic of Uganda

Shryock and Siegel, The Methods and Materials of Demography, Condensed Edition

Statistics Department (MFEP), The 1991 Population and Housing census, Analytical Report, 1995

UBOS, The Uganda Demographic and Health Survey 2000 - 01, 2001

UBOS, The Uganda National Household Survey 2002/2003, Report on the Labour Force Survey, 2003.

UBOS, The Uganda National Household Survey 2002/2003, Report on the Socio-economic Survey, 2003.

United Nations, Manual X Indirect Techniques for Demographic Estimation, 1983

United Nations, The Millennium Development Goals Report, 2005

ANNEXES

Table A1.1: Selected Population Indicators by District

Region/ District	Population ('000s) 1991	Population ('000s) 2002	Growth Rate 1991-2002	Sex Ratio	Population Density	Urbanisation Level	Households ('000s)	Average Household Size
Central								
Kalangala	16.4	34.8	6.5	150	74.3	8.5	12.8	2.6
Kampala	774.2	1,189.1	3.7	92	7,258.6	100	306.2	3.8
Kayunga	236.2	294.6	1.9	94	211.2	6.7	62.0	4.7
Kiboga	141.6	229.5	4.1	104	58.8	5.2	51'3	4.4
Luwero	349.2	478.6	2.7	98	87.9	12.3	106.6	4.4
Masaka	694.7	770.7	0.9	95	244.8	10.6	176.8	4.3
Mpigi	351.0	407.8	1.3	100	138.8	2.5	88.7	4.6
Mubende	501.0	689.5	2.7	100	117.4	7.3	156.2	4.4
Mukono	588.4	795.4	2.6	99	255.8	17.2	188.0	4.2
Nakasongola	100.5	127.1	2.0	101	40.9	5.1	25.5	4.9
Rakai	383.5	470.4	1.8	96	119.8	4.5	106.7	4.4
Sembabule	144.0	180.0	1.9	98	78.9	2.2	39.3	4.6
Wakiso	562.9	908.0	4.1	94	545.3	7.7	218.1	4.1
Region	**4,843.6**	**6,575.4**	**2.6**	**97**	**175.7**	**25.3**	**1,538.2**	**4.2**
Eastern								
Bugiri	239.3	412.4	4.7	94	284.1	4.1	82.7	5.0
Busia	163.6	225.0	2.7	92	324.8	16.3	47.9	4.7
Iganga	489.6	708.7	3.2	92	304.8	5.6	140.2	5.0
Jinja	289.5	387.6	2.5	96	586.5	22.1	84.0	4.5
Kaberamaido	81.5	131.7	4.1	95	108.7	1.8	26.0	5.0
Kamuli	485.2	707.3	3.2	94	217.3	1.6	136.8	5.1
Kapchorwa	116.7	190.4	4.2	98	111.3	4.6	39.1	4.8
Katakwi	144.6	299.0	6.2	93	64.5	2.0	64.7	4.6
Kumi	236.7	389.7	4.3	92	160.2	2.3	78.4	4.9
Mayuge	216.8	324.7	3.5	94	317.3	2.7	64.0	5.1
Mbale	498.7	718.2	3.1	96	533.8	9.9	162.5	4.4
Pallisa	357.7	520.6	3.2	93	327.8	4.5	100.1	5.2
Sironko	212.3	283.1	2.5	98	266.2	4.0	67.3	4.2
Soroti	204.3	369.8	5.1	95	150.6	11.3	70.5	5.2
Tororo	392.0	536.9	2.7	95	329.6	6.5	112.3	4.8
Region	**4,128.5**	**6,204.9**	**3.5**	**94**	**225.8**	**6.6**	**1,276.7**	**4.8**

Table A1.1: Selected Population Indicators by District-Ctd

Region/ District	Population ('000s)		Growth Rate 1991-2002	Sex Ratio	Population Density	Urbanisation Level	Households ('000s)	Average Household Size
Northern								
Adjumani	96.3	202.3	6.4	98	68.9	9.8	31.9	5.1
Apac	454.5	684.0	3.5	96	116.4	1.5	143.0	4.8
Arua	538.1	833.9	3.8	93	155.9	8.8	151.9	5.5
Gulu	338.4	475.3	2.9	97	41.2	25.1	97.2	4.8
Kitgum	175.6	282.4	4.1	98	29.3	14.8	56.0	5.0
Kotido	196.0	377.1	5.5	97	28.7	6.9	*	*
Lira	501.0	741.2	3.4	96	121.2	10.9	154.1	4.8
Moroto	96.8	189.9	5.8	93	22.3	3.9	34.5	4.7
Moyo	79.4	194.8	7.7	104	114.9	6.2	38.9	5.0
Nakapiripirit	77.6	154.5	5.9	99	26.6	1.1	27.4	5.5
Nebbi	316.9	435.4	2.7	92	155.4	14.8	90.0	4.8
Pader	181.6	326.3	5	98	47.4	2.7	65.9	4.9
Yumbe	99.8	251.8	7.9	101	105.8	6.1	42.576	5.9
Region	**3,152.0**	**5,148.9**	**4.6**	**96**	**62.2**	**9.3**	**1,016.8**	**5.0**
Western								
Bundibugyo	116.6	210.0	5	93	106.1	6.6	45.1	4.6
Bushenyi	579.1	731.4	2	92	191.3	5.2	143.0	5.1
Hoima	197.9	343.6	4.7	100	95.4	9.2	70.9	4.6
Kabale	417.2	458.3	0.8	88	281.1	9.0	95.1	4.8
Kabarole	299.6	356.9	1.5	100	199.5	11.5	76.9	4.6
Kamwenge	201.7	263.7	2.3	93	114.7	5.1	57.1	4.6
Kanungu	160.7	204.7	2.1	93	163.6	6.3	43.5	4.7
Kasese	343.6	523.0	3.6	94	179.7	11.4	98.8	5.3
Kibaale	220.3	405.9	5.2	97	98	1.2	85.0	4.8
Kisoro	186.7	220.3	1.4	82	324	5.1	48.5	4.5
Kyenjojo	245.6	377.2	3.7	98	95.7	4.0	80.4	4.7
Masindi	260.8	459.5	4.9	100	54.4	6.2	91.8	5.0
Mbarara	782.8	1,088.4	2.8	97	111.8	8.5	224.8	4.8
Ntungamo	305.2	380.0	1.9	92	191.8	3.5	76.4	4.9
Rukungiri	230.1	275.2	1.5	91	191.9	4.6	56.2	4.9
Region	**4,547.7**	**6,298.1**	**2.8**	**94**	**126.9**	**6.8**	**1,293.0**	**4.8**
UGANDA	**16,671.7**	**24,227.3**	**3.2**	**95**	**122.8**	**12.3**	**5,043.3**	**4.7**

** Data for Kotido District were excluded from the analysis*

Table A1.2: Trend in Sex Ratio by Districts

	Sex Ratio				Intercensal Change			
Region/District	**1969**	**1980**	**1991**	**2002**	**69 - 80**	**80 - 91**	**91 - 02**	**69 - 02**
CENTRAL								
Kalangala	170.3	144.8	154.1	149.8	(25.5)	9.3	(4.3)	(20.5)
Kampala	123.7	102.6	95.0	91.8	(21.1)	(7.6)	(3.2)	(31.9)
Kayunga	113.2	102.1	97.7	94.4	(11.0)	(4.4)	(3.2)	(18.7)
Kiboga	119.8	110.2	105.0	104.2	(9.6)	(5.2)	(0.9)	(15.6)
Luwero	108.6	102.5	99.2	97.9	(6.1)	(3.3)	(1.3)	(10.7)
Masaka	109.6	100.7	97.7	95.2	(8.8)	(3.0)	(2.6)	(14.4)
Mpigi	108.3	103.3	100.4	99.6	(5.0)	(2.9)	(0.8)	(8.7)
Mubende	116.8	110.1	102.9	99.9	(6.7)	(7.2)	(3.0)	(16.8)
Mukono	118.9	105.8	101.8	99.3	(13.1)	(4.0)	(2.6)	(19.7)
Nakasongola	111.4	106.7	100.9	100.8	(4.6)	(5.8)	(0.1)	(10.5)
Rakai	103.6	98.5	97.3	95.7	(5.1)	(1.2)	(1.5)	(7.9)
Sembabule	113.1	103.2	100.5	98.2	(9.9)	(2.7)	(2.3)	(14.9)
Wakiso	111.9	103.3	98.9	94.2	(8.6)	(4.4)	(4.6)	(17.7)
Region	**113.6**	**103.7**	**99.2**	**96.6**	**(9.8)**	**(4.5)**	**(2.6)**	**(17.0)**
EASTERN								
Bugiri	100.6	94.3	95.7	93.8	(6.3)	1.4	(1.9)	(6.8)
Busia	92.0	92.5	94.3	92.0	0.5	1.8	(2.3)	0.0
Iganga	98.7	95.6	93.7	91.8	(3.1)	(1.9)	(1.9)	(6.9)
Jinja	118.4	106.8	98.1	96.5	(11.6)	(8.7)	(1.6)	(21.9)
Kaberamaido	93.3	93.0	94.5	95.5	(0.2)	1.5	1.0	2.2
Kamuli	100.5	98.2	95.9	94.2	(2.2)	(2.4)	(1.6)	(6.2)
Kapchorwa	102.3	104.8	100.8	97.5	2.6	(4.0)	(3.3)	(4.7)
Katakwi	93.1	93.7	97.6	93.4	0.5	4.0	(4.2)	0.3
Kumi	91.5	91.3	90.9	92.1	(0.3)	(0.3)	1.2	0.6
Mayuge	108.5	101.0	97.8	94.3	(7.4)	(3.3)	(3.5)	(14.2)
Mbale	102.2	98.0	98.9	96.4	(4.2)	0.9	(2.5)	(5.8)
Pallisa	96.0	94.2	94.6	93.4	(1.7)	0.3	(1.2)	(2.6)
Sironko	102.2	102.9	103.3	98.1	0.7	0.4	(5.2)	(4.1)
Soroti	96.9	95.2	93.1	95.0	(1.6)	(2.1)	1.9	(1.9)
Tororo	99.6	96.7	97.8	94.9	(2.9)	1.1	(2.9)	(4.7)
Region	**99.7**	**97.0**	**96.3**	**94.4**	**(2.7)**	**(0.7)**	**(1.9)**	**(5.3)**

	Sex Ratio				Intercensal Change			
Region/District	**1969**	**1980**	**1991**	**2002**	**69 - 80**	**80 - 91**	**91 - 02**	**69 - 02**
NORTHERN								
Adjumani	96.9	95.3	92.8	97.9	(1.7)	(2.5)	5.2	1.0
Apac	98.9	97.5	96.2	95.9	(1.5)	(1.3)	(0.3)	(3.1)
Arua	93.3	92.4	93.0	92.9	(0.9)	0.6	(0.1)	(0.4)
Gulu	99.0	94.7	96.6	96.9	(4.4)	2.0	0.3	(2.1)
Kitgum	94.5	95.2	93.7	97.7	0.7	(1.5)	4.0	3.2
Kotido	91.8	92.8	89.3	96.7	1.1	(3.5)	7.3	4.9
Lira	98.6	97.8	97.7	96.1	(0.8)	(0.1)	(1.6)	(2.5)
Moroto	92.9	87.9	83.6	93.4	(5.0)	(4.2)	9.7	0.5
Moyo	95.1	99.2	95.3	103.9	4.1	(3.9)	8.6	8.8
Nakapiripirit	103.9	91.6	93.9	99.2	(12.3)	2.3	5.3	(4.7)
Nebbi	93.7	91.9	92.3	91.5	(1.8)	0.4	(0.8)	(2.2)
Pader	98.3	94.6	93.4	97.5	(3.8)	(1.2)	4.1	(0.8)
Yumbe	95.2	92.4	93.9	100.5	(2.7)	1.5	6.6	5.3
Region	**96.3**	**94.4**	**94.1**	**96.0**	**(1.9)**	**(0.3)**	**1.9**	**(0.3)**
WESTERN								
Bundibugyo	96.6	101.7	98.4	93.3	5.1	(3.3)	(5.2)	(3.4)
Bushenyi	92.6	91.6	93.3	92.4	(1.0)	1.7	(0.9)	(0.2)
Hoima	109.2	103.0	101.3	100.3	(6.2)	(1.7)	(1.0)	(8.9)
Kabale	85.1	89.1	90.1	88.0	4.0	0.9	(2.0)	2.9
Kabarole	111.4	101.0	99.3	99.9	(10.4)	(1.7)	0.6	(11.5)
Kamwenge	96.7	97.2	96.1	92.6	0.5	(1.0)	(3.5)	(4.0)
Kanungu	95.3	94.5	93.2	93.0	(0.7)	(1.3)	(0.3)	(2.3)
Kasese	116.3	104.9	95.3	93.5	(11.4)	(9.6)	(1.8)	(22.7)
Kibaale	105.0	101.0	99.3	97.3	(4.1)	(1.7)	(2.1)	(7.8)
Kisoro	81.1	82.6	86.2	82.3	1.5	3.6	(3.9)	1.1
Kyenjojo	103.5	98.9	98.3	97.9	(4.6)	(0.6)	(0.4)	(5.6)
Masindi	110.5	106.4	102.4	99.8	(4.2)	(4.0)	(2.5)	(10.7)
Mbarara	94.4	96.7	97.5	96.5	2.3	0.8	(1.0)	2.1
Ntungamo	89.6	92.0	92.6	91.8	2.4	0.6	(0.8)	2.1
Rukungiri	89.9	92.2	92.2	90.9	2.3	0.0	(1.2)	1.0
Region	**96.6**	**96.4**	**95.5**	**94.4**	**(0.2)**	**(0.9)**	**(1.0)**	**(2.1)**
UGANDA	**101.9**	**98.2**	**96.5**	**95.3**	**(3.7)**	**(1.7)**	**(1.2)**	**(6.5)**

Table A1.3: Myer's Index of Digit Preference, 1969 - 2002

Digit	1969	1991	2002		
			Male	Female	Both sexes
0	10.0	8.1	3.9	5.7	4.8
1	-3.5	-3.4	-2.5	-2.7	-2.6
2	-0.3	-0.1	1.7	1.5	1.6
3	-3.2	-2.2	-1.1	-1.6	-1.4
4	-2.4	-1.6	-0.4	-1.0	-0.7
5	3.9	2.8	0.7	0.5	0.6
6	-1.6	-0.7	-0.6	-1.2	-0.9
7	-2.3	-2.1	-0.9	-1.4	-1.1
8	-1.2	2.0	0.4	0.8	0.6
9	-1.8	-2.8	-1.2	-0.7	-0.9
Myer's index	30.3	25.8	13.4	17.1	15.3

Table A1.4: Percentage Distribution of Population by Sex and Age Group, 1969 - 2002.

Age Group	1969	1991	2002		
			Male	Female	Total
0-4	19.3	18.9	19.2	18.3	18.7
5-9	15.4	15.0	16.7	16.0	16.4
10-14	11.5	13.3	14.7	13.9	14.3
15-19	8.7	10.8	11.0	11.0	11.0
20-24	7.6	9.2	8.2	9.5	8.9
25-29	7.7	7.7	7.0	7.6	7.3
30-34	6.4	5.7	5.9	5.7	5.8
35-39	5.2	4.2	4.1	4.2	4.2
40-44	4.1	3.3	3.3	3.4	3.4
45-49	3.4	2.8	2.2	2.3	2.2
50-54	3.1	2.6	1.9	2.1	2.0
55-59	1.9	1.6	1.3	1.4	1.3
60-64	2.0	1.7	1.5	1.5	1.5
65-69	1.2	1.1	1.0	0.9	0.9
70-74	1.1	1.0	0.9	0.9	0.9
75-79	0.5	0.5	0.5	0.4	0.4
80+	1.1	0.8	0.7	0.8	0.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table A1.5a: Percent distribution of Population age group and Citizenship by Sex

Age Group	Ugandan			Non Ugandan		
	Male	Female	Total	Male	Female	Total
0-4	19.3	18.3	18.8	16.0	15.9	16.0
5-9	16.8	16.0	16.4	13.9	13.8	13.9
10-14	14.7	14.0	14.3	13.0	12.4	12.7
15-19	11.0	11.0	11.0	11.6	11.0	11.3
20-24	8.2	9.5	8.9	8.6	10.1	9.3
25-29	7.0	7.5	7.3	7.4	8.4	7.9
30-34	5.9	5.7	5.8	6.3	6.3	6.3
35-39	4.1	4.2	4.2	4.5	4.8	4.7
40-44	3.3	3.4	3.4	3.7	4.0	3.8
45-49	2.1	2.3	2.2	2.8	2.9	2.8
50-54	1.9	2.1	2.0	2.7	2.8	2.8
55-59	1.2	1.4	1.3	1.9	1.7	1.8
60-64	1.4	1.5	1.5	2.5	2.1	2.3
65-69	1.0	0.9	0.9	1.5	1.0	1.3
70-74	0.9	0.9	0.9	1.5	1.2	1.3
75-79	0.5	0.4	0.4	0.7	0.5	0.6
80+	0.7	0.8	0.8	1.4	1.0	1.2
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table A1.5b: Distribution of Population by age group by Citizenship and Sex

	Rural		Urban		
Age Group	Male	Female	Male	Female	Total
0-4	2,008,199	2,005,241	222,191	224,066	4,459,697
5-9	1,757,505	1,748,823	190,076	202,532	3,898,936
10-14	1,530,837	1,496,539	176,259	206,351	3,409,986
15-19	1,105,221	1,119,622	176,379	223,010	2,624,232
20-24	775,234	952,013	177,588	208,350	2,113,185
25-29	660,436	769,329	150,279	153,199	1,733,243
30-34	575,040	594,547	113,982	97,314	1,380,883
35-39	408,823	450,875	71,169	64,329	995,196
40-44	340,039	372,613	49,484	45,473	807,609
45-49	221,734	252,333	29,931	27,719	531,717
50-54	195,997	236,771	22,344	21,607	476,719
55-59	134,150	161,009	12,408	12,349	319,916
60-64	159,775	175,420	10,952	13,110	359,257
65-69	107,360	102,595	6,572	7,477	224,004
70-74	96,595	106,117	5,105	7,342	215,159
75-79	50,932	47,015	2,801	3,742	104,490
80+	81,891	92,068	4,991	8,083	187,033
Total	**10,209,768**	**10,682,930**	**1,422,511**	**1,526,053**	**23,841,262**

Note: The Population excludes Kotido District and Persons enumerated in Hotels

Appendix A1.6: Selected indices of age distribution by district 2002

Region/ District	Myre's Index	Median Age	Percentage of Population Aged			Age Dependency ratio
			0-14	15-64	65+	
Central						
Kalangala	13.7	22.9	28.9	69.3	1.8	44.4
Kampala	10.8	19.4	38.0	60.9	1.2	64.2
Kayunga	15.0	13.9	52.9	43.2	3.9	116.9
Kiboga	17.7	14.9	50.3	46.1	3.6	127.5
Luwero	15.7	14.2	52.2	44.0	3.9	120.4
Masaka	17.5	14.7	50.8	45.4	3.8	132.2
Mpigi	16.4	14.1	52.9	43.1	4	120.5
Mubende	16.8	14.6	51.2	45.4	3.5	110.3
Mukono	17.7	15.4	49.2	47.6	3.3	120.5
Nakasongola	13.6	14.4	51.5	45.4	3.1	116.0
Rakai	16.3	15.0	50.0	46.3	3.7	116.0
Sembabule	18.0	14.8	50.5	46.3	3.2	131.5
Wakiso	14.0	16.8	45.3	52.3	2.5	91.3
Region	**15.0**	**15.9**	**47.7**	**49.3**	**3.0**	**102.9**
Eastern						
Bugiri	12.4	13.9	52.4	44.8	2.7	123.0
Busia	12.0	14.8	50.4	46.3	3.3	115.9
Iganga	14.6	13.6	53.6	43.0	3.5	132.8
Jinja	18.3	15.5	48.9	48.7	2.5	105.4
Kaberamaido	14.7	14.4	51.4	44.7	3.9	131.0
Kamuli	21.1	13.7	53.1	43.3	3.6	116.9
Kapchorwa	14.3	14.7	50.9	46.1	3	115.8
Katakwi	18.1	15.0	50.0	46.3	3.6	119.1
Kumi	17.4	15.1	49.8	45.6	4.6	110.2
Mayuge	15.8	13.6	53.3	43.9	2.8	129.3
Mbale	14.7	15.7	48.6	47.6	3.9	115.1
Pallisa	17.0	14.0	52.4	43.6	3.9	116.7
Sironko	13.9	15.7	48.5	46.8	4.7	123.6
Soroti	17.2	14.9	50.2	46.5	3.3	127.6
Tororo	10.7	14.9	50.2	46.1	3.7	113.7
Region	**15.0**	**14.5**	51.1	45.4	3.5	**120.4**

Appendix A1.6: Selected indices of age distribution by district 2002

Region/ District	Myre's Index	Median Age	Percentage of Population Aged			Age Dependency ratio
			0-14	15-64	65+	
Northern						
Adjumani	13.8	15.2	49.5	48.9	1.6	104.6
Apac	13.6	14.5	51.2	45.6	3.2	119.2
Arua	11.4	15.7	48.3	49.2	2.5	103.2
Gulu	18.3	15.7	48.5	48.8	2.7	104.9
Kitgum	14.0	15.8	48.1	48.9	3.0	104.5
Kotido	*	*	*	*	*	*
Lira	15.9	14.9	50.3	46.9	2.8	113.2
Moroto	11.0	17.3	44.5	53.5	2.0	87.0
Moyo	19.3	15.7	48.4	49.9	1.7	100.5
Nakapiripirit	14.9	15.3	49.2	49.3	3.1	112.6
Nebbi	10.4	15.1	49.8	47.0	1.5	102.8
Pader	11.6	15.8	48.2	49.6	2.2	101.5
Yumbe	20.4	14.3	51.9	46.4	1.7	115.5
Region	**13.9**	**15.3**	**49.3**	**48.1**	**2.6**	**107.7**
Western						
Bundibugyo	22.8	15.2	49.6	48.0	2.4	108.3
Bushenyi	16.0	15.1	49.7	47.0	3.2	112.6
Hoima	13.0	15.5	48.8	48.0	3.2	108.4
Kabale	18.2	15.6	48.4	48.0	3.6	108.4
Kabarole	16.7	15.5	48.8	47.8	3.4	109.4
Kamwenge	13.4	15.0	50.1	47.4	2.5	110.3
Kanungu	14.6	15.2	49.5	47.6	2.9	121.7
Kasese	23.1	14.9	50.2	47.6	2.2	123.1
Kibaale	16.4	14.2	52.2	45.1	2.7	109.0
Kisoro	26.4	14.6	51.3	44.8	3.9	102.6
Kyenjojo	16.7	14.4	51.5	45.3	3.0	108.3
Masindi	14.8	15.3	49.3	47.9	2.8	112.7
Mbarara	12.7	15.9	47.8	49.4	2.9	111.0
Ntungamo	14.8	15.5	48.8	48.0	3.1	110.0
Rukungiri	11.6	15.2	49.5	47.0	3.5	120.8
Region	**16.2**	**15.2**	49.5	47.5	3.0	**110.4**
Uganda	**15.1**	**15.3**	**49.4**	**47.6**	**3.1**	**110.2**

A1.7: Age Specific and Total Fertility Rates by District and Region

District /Region	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Adjusted TFR	Median Age
Central									
Kalangala	0.234	0.275	0.235	0.158	0.091	0.046	0.021	5.3	22.9
Kampala	0.148	0.218	0.187	0.132	0.072	0.028	0.007	4.0	19.4
Kayunga	0.237	0.381	0.336	0.253	0.169	0.076	0.017	7.3	13.9
Kiboga	0.223	0.371	0.336	0.286	0.190	0.096	0.019	7.6	14.9
Luwero	0.228	0.360	0.315	0.243	0.160	0.066	0.015	6.9	14.2
Masaka	0.181	0.363	0.318	0.239	0.166	0.081	0.015	6.8	14.7
Mpigi	0.237	0.372	0.326	0.250	0.159	0.074	0.014	7.2	14.1
Mubende	0.219	0.370	0.325	0.261	0.183	0.086	0.020	7.3	14.6
Mukono	0.220	0.332	0.282	0.212	0.137	0.063	0.014	6.3	15.4
Nakasongola	0.213	0.399	0.337	0.265	0.183	0.075	0.017	7.4	14.4
Rakai	0.202	0.382	0.335	0.269	0.190	0.082	0.019	7.4	15.0
Sembabule	0.241	0.367	0.326	0.267	0.204	0.092	0.022	7.6	14.8
Wakiso	0.223	0.258	0.207	0.152	0.085	0.040	0.011	4.9	16.8
Region	**0.202**	**0.309**	**0.268**	**0.209**	**0.139**	**0.065**	**0.015**	**6.0**	**15.9**
Eastern									
Bugiri	0.263	0.385	0.349	0.288	0.199	0.095	0.020	8.0	13.9
Busia	0.261	0.350	0.309	0.237	0.160	0.074	0.016	7.0	14.8
Iganga	0.238	0.401	0.366	0.289	0.196	0.096	0.022	8.0	13.6
Jinja	0.231	0.324	0.290	0.223	0.143	0.061	0.016	6.4	15.5
Kaberamaido	0.223	0.368	0.363	0.297	0.207	0.099	0.022	7.9	14.4
Kamuli	0.239	0.405	0.374	0.299	0.200	0.095	0.018	8.1	13.7
Kapchorwa	0.194	0.368	0.344	0.283	0.227	0.109	0.033	7.8	14.7
Katakwi	0.215	0.345	0.319	0.259	0.188	0.087	0.022	7.2	15.0
Kumi	0.193	0.370	0.341	0.286	0.204	0.092	0.024	7.6	15.1
Mayuge	0.303	0.359	0.324	0.246	0.171	0.084	0.023	7.5	13.6
Mbale	0.213	0.350	0.322	0.268	0.196	0.100	0.022	7.4	15.7
Pallisa	0.277	0.373	0.352	0.287	0.201	0.098	0.031	8.1	14.0
Sironko	0.237	0.343	0.302	0.242	0.172	0.077	0.019	7.0	15.7
Soroti	0.213	0.354	0.328	0.273	0.190	0.087	0.019	7.3	14.9
Tororo	0.240	0.357	0.328	0.277	0.206	0.089	0.022	7.6	14.9
Region	***0.237***	**0.368**	**0.338**	**0.274**	**0.192**	**0.091**	**0.022**	**7.6**	**14.5**

A1.7: Age Specific and Total Fertility Rates by District and Region

District /Region	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Adjusted TFR	Median Age
Northern									
Adjumani	0.115	0.337	0.345	0.293	0.214	0.093	0.019	7.1	15.2
Apac	0.243	0.355	0.317	0.267	0.200	0.108	0.033	7.6	14.5
Arua	0.152	0.340	0.338	0.279	0.192	0.083	0.022	7.0	15.7
Gulu	0.200	0.331	0.306	0.248	0.194	0.090	0.032	7.0	15.7
Kitgum	0.213	0.344	0.319	0.251	0.175	0.091	0.028	7.1	15.8
Kotido	*	*	*	*	*	*	*	*	*
Lira	0.241	0.353	0.323	0.272	0.196	0.090	0.026	7.5	14.9
Moroto	0.213	0.296	0.288	0.209	0.164	0.090	0.045	6.5	17.3
Moyo	0.115	0.301	0.322	0.273	0.194	0.086	0.018	6.5	15.7
Nakapiripirit	0.211	0.354	0.314	0.229	0.154	0.103	0.043	7.0	15.3
Nebbi	0.198	0.323	0.307	0.257	0.191	0.101	0.026	7.0	15.1
Pader	0.227	0.319	0.288	0.256	0.183	0.089	0.032	7.0	15.8
Yumbe	0.180	0.352	0.339	0.293	0.189	0.097	0.043	7.5	14.3
Region	**0.203**	**0.343**	**0.325**	**0.268**	**0.196**	**0.098**	**0.032**	**7.3**	**15.3**
Western									
Bundibugyo	0.180	0.352	0.339	0.293	0.189	0.097	0.043	7.5	15.2
Bushenyi	0.130	0.382	0.341	0.269	0.182	0.086	0.017	7.0	15.1
Hoima	0.223	0.330	0.296	0.253	0.179	0.087	0.021	6.9	15.5
Kabale	0.082	0.341	0.345	0.286	0.194	0.096	0.028	6.9	15.6
Kabarole	0.221	0.328	0.286	0.246	0.163	0.075	0.016	6.7	15.5
Kamwenge	0.205	0.375	0.347	0.277	0.203	0.092	0.023	7.6	15.0
Kanungu	0.156	0.368	0.334	0.287	0.202	0.094	0.022	7.3	15.2
Kasese	0.224	0.361	0.338	0.274	0.201	0.099	0.027	7.6	14.9
Kibaale	0.195	0.401	0.368	0.319	0.236	0.107	0.021	8.2	14.2
Kisoro	0.117	0.356	0.340	0.297	0.215	0.100	0.023	7.2	14.6
Kyenjojo	0.225	0.369	0.335	0.284	0.212	0.100	0.024	7.7	14.4
Masindi	0.265	0.319	0.287	0.238	0.166	0.085	0.025	6.9	15.3
Mbarara	0.164	0.358	0.324	0.268	0.186	0.086	0.017	7.0	15.9
Ntungamo	0.132	0.381	0.353	0.294	0.202	0.091	0.022	7.4	15.5
Rukungiri	0.109	0.371	0.320	0.248	0.175	0.077	0.018	6.6	15.2
Region	**0.177**	**0.359**	**0.328**	**0.272**	**0.190**	**0.090**	**0.021**	**7.2**	**15.2**
Uganda	**0.204**	**0.344**	**0.314**	**0.256**	**0.179**	**0.086**	**0.022**		**15.3**

A1.8: Selected Fertility Characteristics by District and Region

Region/ District	SMAM		Percent Currently Married**	Risky Births	Infertility Rate	Teenage Motherhood (Rate)	Share of Teenage Mothers
	Female	Male					
Central							
Kalangala	17.7	22.3	56.3	41.0	5.0	31.6	0.2
Kampala	21.2	25.9	45.3	36.0	6.4	15.4	5.5
Kayunga	18.9	23.9	59.7	58.1	7.7	18.4	1.2
Kiboga	19.3	23.2	59.1	56.3	4.3	17.5	0.9
Luwero	19.9	23.9	52.2	55.3	5.0	16.8	1.9
Masaka	20.3	23.5	50.5	51.5	4.9	12.7	3
Mpigi	20.3	23.5	51.5	57.3	4.5	16.8	1.5
Mubende	19.5	22.8	57.9	55.3	4.9	16.9	2.7
Mukono	19.9	23.4	54.1	53.3	6.7	18.2	3.2
Nakasongola	19.5	23.0	57.3	55.2	6.6	16.5	0.5
Rakai	19.7	23.0	57	52.4	3.7	15.3	1.9
Ssembabule	19.6	22.8	60.5	54.2	3.4	18.7	0.8
Wakiso	20.9	24.5	47.4	48.6	4.3	22.9	4
Region	**20.6**	**24.1**	**51.7**	**50.3**	**5.2**	**17.2**	**27.2**
Eastern							
Bugiri	18.3	22.2	71.7	61.0	7.0	23.3	1.7
Busia	18.9	22.5	67.3	58.0	6.8	22.9	0.9
Iganga	18.8	22.8	65.6	60.5	6.7	19.3	2.9
Jinja	20.0	24.2	58.9	55.4	4.8	19.4	1.6
Kaberamaido	19.1	22.3	66.3	60.7	9.0	20	0.5
Kamuli	18.7	22.3	66.5	60.6	6.2	18.5	2.9
Kapchorwa	19.7	22.6	69.8	52.1	3.4	16.4	0.8
Katakwi	19.8	22.1	63.5	55.4	11.1	20.2	1.3
Kumi	19.5	22.4	64.7	55.4	10.1	16.6	1.6
Mayuge	18.3	22.2	69.6	61.2	6.3	28.5	1.4
Mbale	19.4	22.9	64.8	56.1	5.6	18.7	2.9
Pallisa	18.6	22.4	70.4	62.5	7.5	24.8	2.1
Sironko	19.1	22.7	64.0	57.0	6.2	20.4	1.1
Soroti	19.8	22.5	63.4	57.6	9.8	19.5	1.5
Tororo	18.9	22.7	70.0	59.1	4.8	22.1	2.3
Region	**19.1**	**22.6**	**66.4**	**58.6**	**6.9**	**20.5**	**25.7**

A1.8: Selected Fertility Characteristics by District and Region

Region/ District	SMAM		Percent Currently Married**	Risky Births	Infertility Rate	Teenage Mother (Rate)	Share of Teenage Mothers
	Female	Male					
Northern							
Adjumani	20.9	25.0	59.5	46.7	2.7	7.9	0.8
Apac	18.5	21.7	68.9	58.9	7.6	23.2	2.8
Arua	19.9	23.9	63.1	50.1	7.5	12.5	3.6
Gulu	19.3	22.9	67.3	52.3	5.1	19.3	2.1
Kitgum	20.7	23.8	62.5	53.8	4.4	22	1.2
Kotido	*	*	*	*	*	*	*
Lira	18.8	22.6	68.6	58.2	7.0	22	3.1
Moroto	21.1	24.3	66.8	49.2	2.5	21.8	0.9
Moyo	21.0	25.1	62.4	43.0	3.6	9.9	0.8
Nakapiripirit	20.6	24.4	69.6	53.5	1.8	19.5	0.7
Nebbi	18.9	22.9	68.5	53.7	4.2	20.4	1.9
Pader	20.5	24.0	65.9	54.5	4.0	26.2	1.4
Yumbe	20.1	24.5	64.4	49.3	5.6	14.4	1.0
Region	**20.0**	**23.6**	**66.1**	**53.6**	**5.7**	**18.7**	**20.5**
Western							
Bundibugyo	18.7	22.1	62.9	56.9	7.2	24.1	0.9
Bushenyi	20.5	24.4	59.5	47.2	2.7	8.9	3.1
Hoima	18.9	22.4	62.0	53.7	5.5	21.1	1.4
Kabale	21.4	24.6	57.0	44.9	4.4	5.5	1.9
Kabarole	19.6	23.1	52.1	53.4	3.9	18.7	1.4
Kamwenge	19.1	22.6	65.2	53.5	2.2	17.7	1.2
Kanungu	20.0	23.3	61.3	49.8	2.7	12.4	0.9
Kasese	20.3	23.6	60.0	56.2	3.2	17.3	2.2
Kibaale	18.9	22.2	64.1	54.5	3.4	15	1.7
Kisoro	20.4	23.1	61.3	48.7	3.5	9.1	0.9
Kyenjojo	18.4	22.4	61.2	55.7	3.0	18.1	1.5
Masindi	18.8	22.2	64.9	56.8	4.7	27.3	1.9
Mbarara	20.2	24.0	60.6	49.0	2.8	13.3	4.7
Ntungamo	20.5	24.4	60.1	48.7	2.9	9.6	1.6
Rukungiri	20.7	24.5	57.2	43.5	3.5	7.6	1.1
Region	**19.9**	**23.4**	**60.4**	**51.3**	**3.5**	**14.4**	**26.6**
UGANDA	**19.9**	**24.1**	**60.6**	**53.6**	5.3	**17.5**	**100**

Table A1.9: Abridges Lifetable for Uganda

Age	Life Table Survivors	Probability of Dying	Life Table Population	Expectation of Life
X	Lx	nqx	nLx	ex
Males				
0	1.0000	**0.0910**	0.9384	**48.80**
1	0.9090	0.0785	3.4637	52.65
5	0.8376	0.0230	4.1352	53.00
10	0.8184	0.0120	4.0682	49.20
15	0.8085	0.0162	4.0099	44.76
20	0.7954	0.0297	3.9180	40.46
25	0.7718	0.0556	3.7516	36.62
30	0.7289	0.0702	3.5166	33.63
35	0.6777	0.0791	3.2548	30.98
40	0.6242	0.0846	2.9888	28.43
45	0.5714	0.0940	2.7225	25.82
50	0.5177	0.0930	2.4680	23.24
55	0.4695	0.0943	2.2369	20.37
60	0.4252	0.1266	1.9917	17.23
65	0.3714	0.1599	1.7086	14.36
70	0.3120	0.2205	1.3881	11.62
75	0.2432	0.2742	1.0495	9.20
80	0.1766	0.3551	0.7260	6.73
85	0.1139	1.0000		4.06
Females				
0	1.0000	**0.0842**	0.9413	**52.02**
1	0.9158	0.0721	3.5043	55.78
5	0.8497	0.0201	4.2016	55.99
10	0.8326	0.0105	4.1422	52.09
15	0.8239	0.0147	4.0891	47.62
20	0.8118	0.0299	3.9981	43.29
25	0.7875	0.0551	3.8288	39.55
30	0.7441	0.0670	3.5956	36.71
35	0.6942	0.0686	3.3519	34.17
40	0.6466	0.0669	3.1247	31.51
45	0.6033	0.0715	2.9087	28.58
50	0.5602	0.0687	2.7047	25.59
55	0.5217	0.0748	2.5109	22.30
60	0.4827	0.0970	2.2963	18.90
65	0.4358	0.1278	2.0399	15.66
70	0.3801	0.1835	1.7262	12.59
75	0.3104	0.2244	1.3777	9.85
80	0.2407	0.3315	1.0041	6.98
85	0.1609	1.0000		4.21

Annex 2: Glossary of Terms

Geography Definitions

Enumeration Area (EA) – An area demarcated for purposes of census enumeration. It consists of a complete LC I, part of an LC I or more than one LC I in the same parish.

Residence – Classification of EAs between rural, peri-urban and urban areas

Urban Areas – All gazetted cities, municipalities and town councils

District – A district in Uganda where a person was enumerated. At the time of census enumeration, there were 56 districts in Uganda

Household Definitions

Household – A group of persons who normally live and eat together.

Head of Household – A person who is acknowledged as the head by other members either by virtue of age or social standing in the household. The head has primary authority and responsibility for household affairs.

Household Size – Number of persons who are members of a given household.

Age Category Definitions

Children – Persons of either sex who are below 18 years of age.

Adolescents – Persons of either sex who are aged 10 to 24 years.

Elderly Population – Persons of either sex who are aged 60 years or more.

Reproductive Age – Women aged 15 to 49 years, irrespective of their marital status, whether in school or not, or whether they have children or not.

Youths – Persons of either sex who are aged 18 to 30 years.

Personal Characteristics

Marital Status – Refers to the current marriage relationship between man and woman. This is as reported by the respondent without verification of its legal status.

Ugandan Population - People who belong to any of the Ugandan tribes or persons from a non-Ugandan Ethnic Group who are citizens of Uganda.

Education Definitions

Literacy – Ability to write and read with understanding, in any language

School – Any institution of learning that offers formal education between Primary 1 and Senior 6. It is usually full time and excludes pre-primary/nursery education.

Educational Attainment – The highest level of formal education/training completed irrespective of the examination results obtained.

Vocational/Tertiary Education – Post secondary education excluding University Education.

Annex 3: Technical Notes

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Annex 4: Questionnaires and Codelists

A3.1: Household Questionnaire – Front Page

A3.2: Household Questionnaire – Back Page

A3.3: MSE Questionnaire

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A3.4: Community Questionnaire – Page 1

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Household Questionnaire - Codelist

Annex : Occupation Codelist

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