# Analysis of Kenya Census 2019
# Socio-Economic Factors

# Team Decoders

| Name | Role |
| --- | --- |
| Jenipher Mawia | Team Lead, Data Extraction, Tableau |
| Valentine Karimi | Data Extraction, Tableau |
| Pauline Chelagat | Data Studio, Data compilation |
| Faustine Njiriri | Data Report, PowerBI |
| Elizabeth Josephine | Data Report, Preparing slides |

# PROBLEM STATEMENT

## Challenges

- Census data has been **released in PDF format**.
- There is no graphical dashboard to communicate the information on the census data .

## Objectives

o  Building visualizations from the census data

o Draw insights  from the visualizations that will help any **interested industry**

o Give recommendations from the insights drawn to different sectors.

# TECHNOLOGIES USED
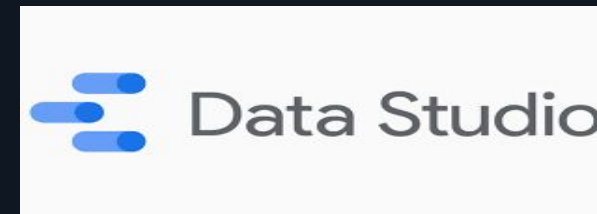
# DATA COLLECTION & PREPARATION

- **Collected by the KPHC enumerators in during the census period on the 25th August, 2019**

### Data Extraction

o Data in PDF format -> converted to excel format

**1**

### Data Understanding

- Census data came in 4 sections.

- Data came in county & sub-county levels

**2**

**3**

### Data Analysis & Cleaning

o Compiled most of the data into one excel sheet

# SOCIO-ECONOMIC FACTORS INVESTIGATED DURING CENSUS

- Education

- Housing

- Employment

- Agriculture



- ICT usage

- Religion

- Ethnic affiliation

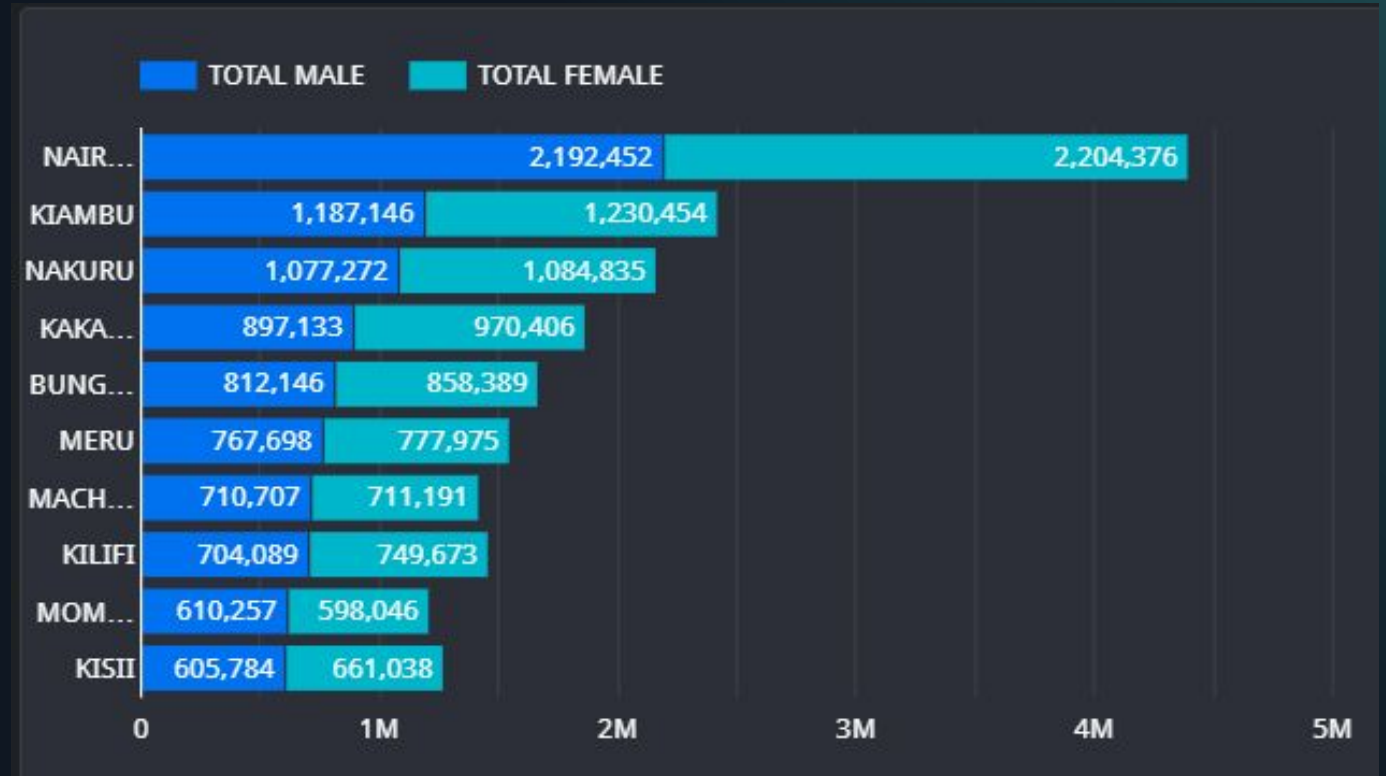- Disability

# General Population in Kenya: 2019 Census

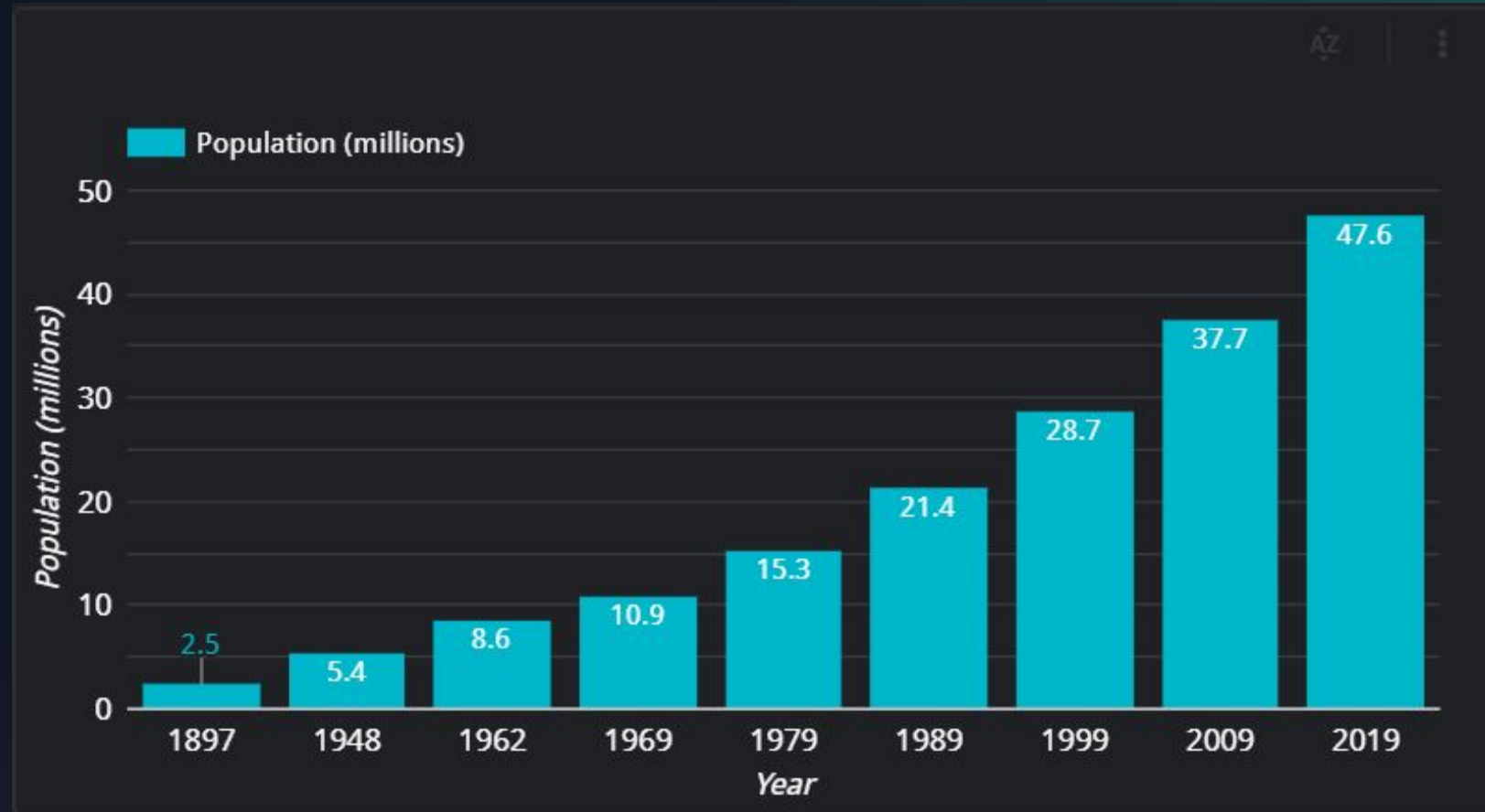## Kenya: 47.56M

Kenyans: 47.1M
Non-Kenyans: 463.6K

### Gender

o Females = 24 Million

o Males = 23.5 Million

o Intersex = 1524



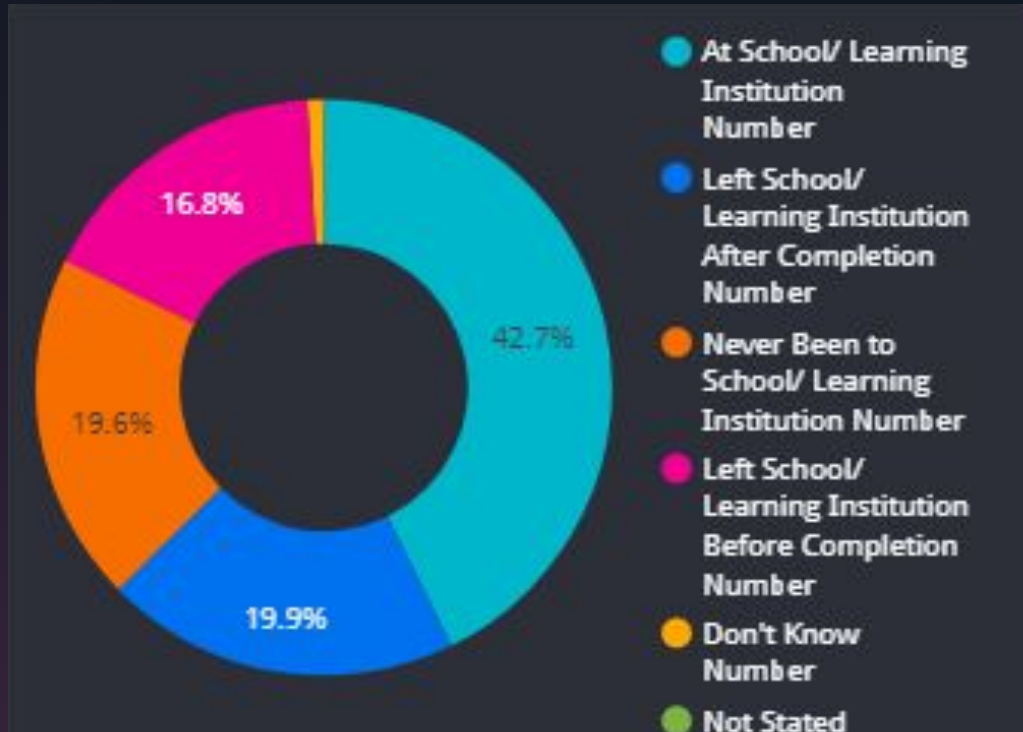| | TOTAL MALE | TOTAL FEMALE |
|---|---|---|
| NAIR... | 2,192,452 | 2,204,376 |
| KIAMBU | 1,187,146 | 1,230,454 |
| NAKURU | 1,077,272 | 1,084,835 |
| KAKA... | 897,133 | 970,406 |
| BUNG... | 812,146 | 858,389 |
| MERU | 767,698 | 777,975 |
| MACH... | 710,707 | 711,191 |
| KILIFI | 704,089 | 749,673 |
| MOM... | 610,257 | 598,046 |
| KISII | 605,784 | 661,038 |

# Population Trend Across the Years

- Sex ratio (No. of males per 100 females)- 9.8
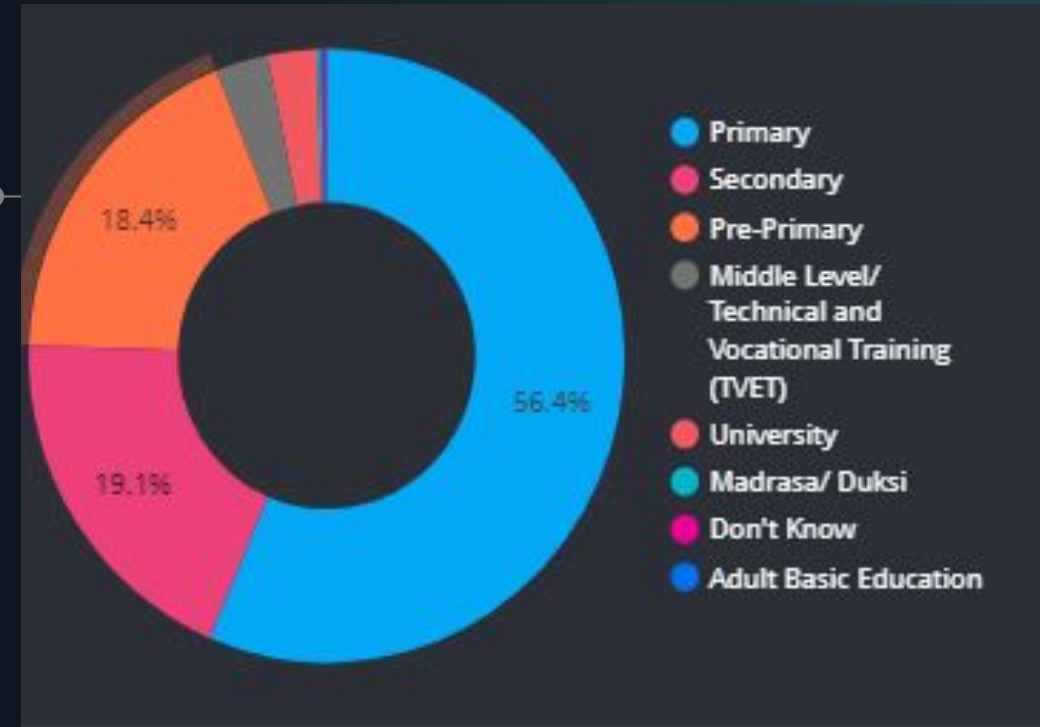- Population density - 82
- Inter-Censal growth rate - 2.2%



Population (millions)

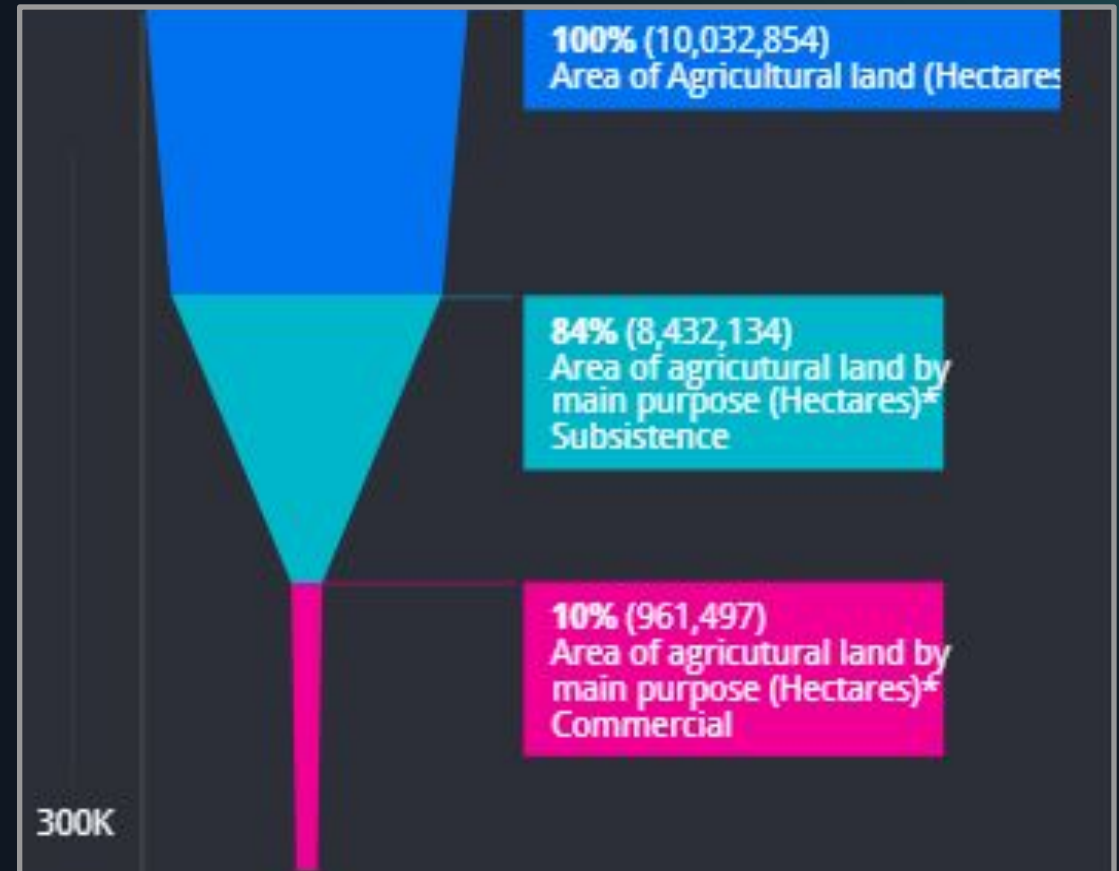| Year | Population (millions) |
|------|----------------------|
| 1897 | 2.5 |
| 1948 | 5.4 |
| 1962 | 8.6 |
| 1969 | 10.9 |
| 1979 | 15.3 |
| 1989 | 21.4 |
| 1999 | 28.7 |
| 2009 | 37.7 |
| 2019 | 47.6 |

# Education

- 42.7 % of the population in Kenya is in school which is far from the best literacy rate of 99% in New Zealand

# Agriculture

- Land area (hectares) in Kenya was reported at **56.9 million** ha in 2011, according to the World Bank .

- **17.6%** of this is under agriculture according to the Census

- The rest is land in arid/semi-arid regions, water bodies, used for settlement



100% (10,032,854)
Area of Agricultural land (Hectares

84% (8,432,134)
Area of agricultural land by main purpose (Hectares)*
Subsistence

10% (961,497)
Area of agricultural land by main purpose (Hectares)*
Commercial

300K

# Agriculture Cont.

| COUNTY | MAIN PRACTICE | REASON BEHIND IT |
|--------|---------------|------------------|
| Isiolo, Tharaka-Nithi | Irrigation | Arid/Semi-arid |
| Machakos, Makueni | Irrigation | Arid/Semi-arid, many projects set for irrigation |
| Garissa,Wajir, Mandera | Aquaculture, Livestock keeping(indigenous) | Land not suitable for crop farming |
| Nakuru, Meru | Crop Production, Livestock keeping(exotic) | Highlands- relief areas |
| Lake Victoria, Homabay, Kisumu, Migori, Siaya and Busia, Kilifi, Tana River, Kwale and Lamu, Turkana | Fishing | Proximity to large water bodies |

# Disability

*Top 10 counties with the highest number of disabled individuals*
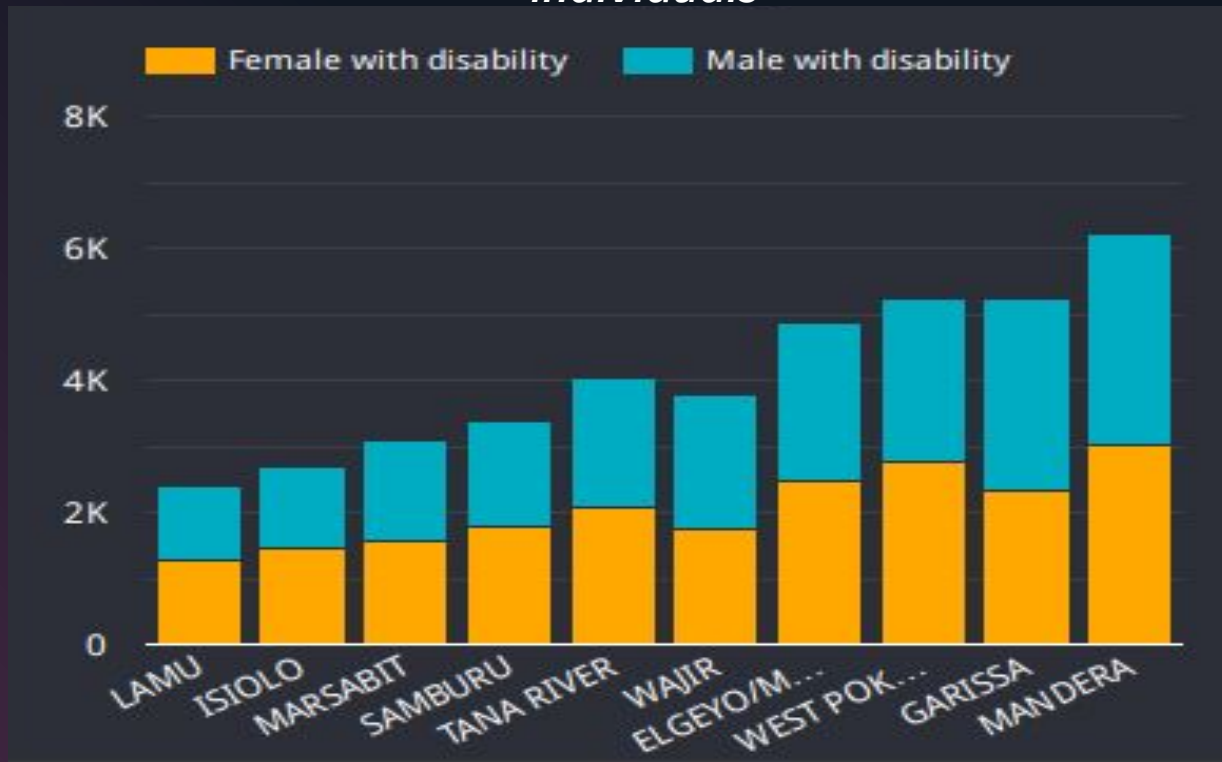
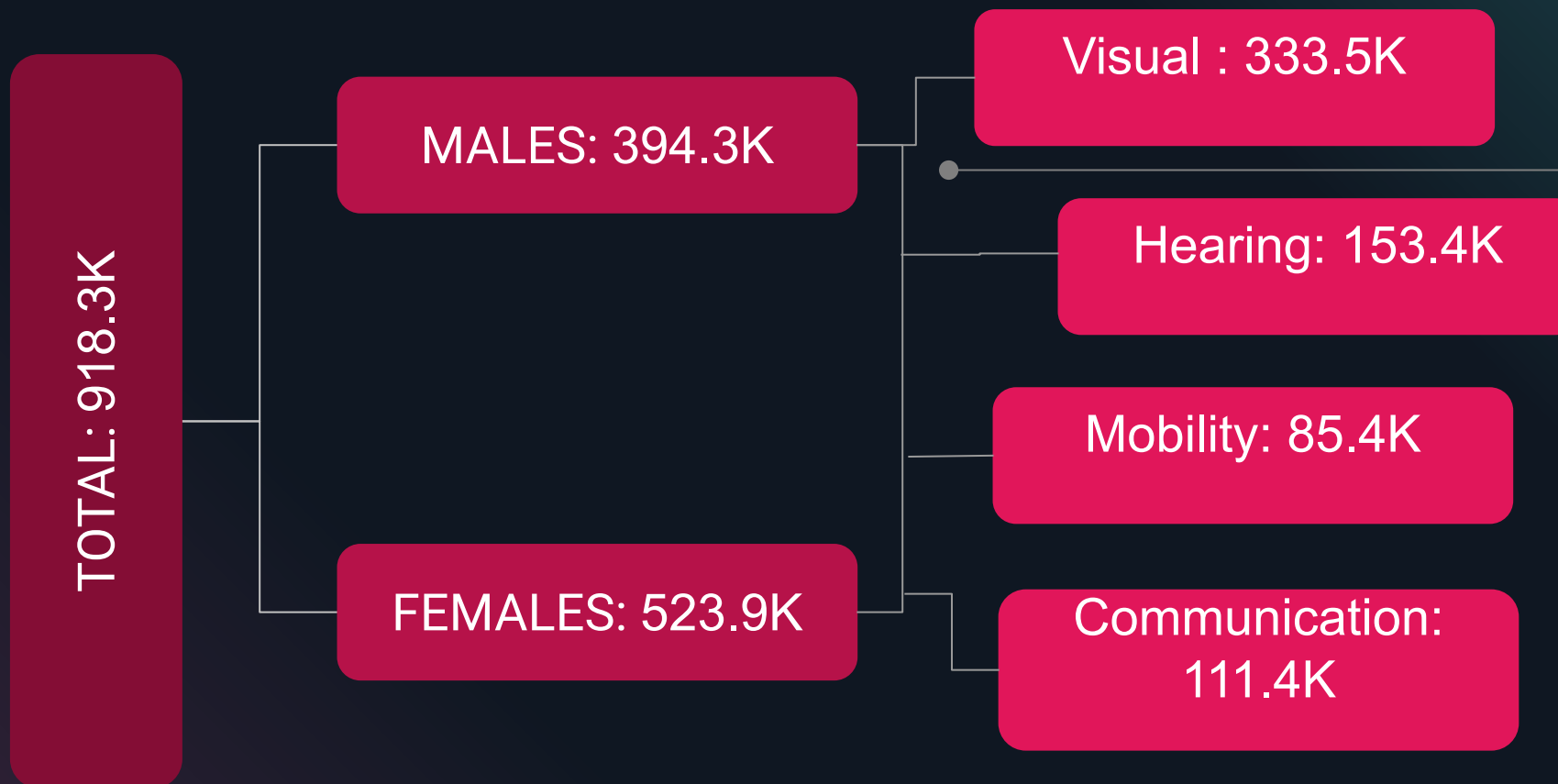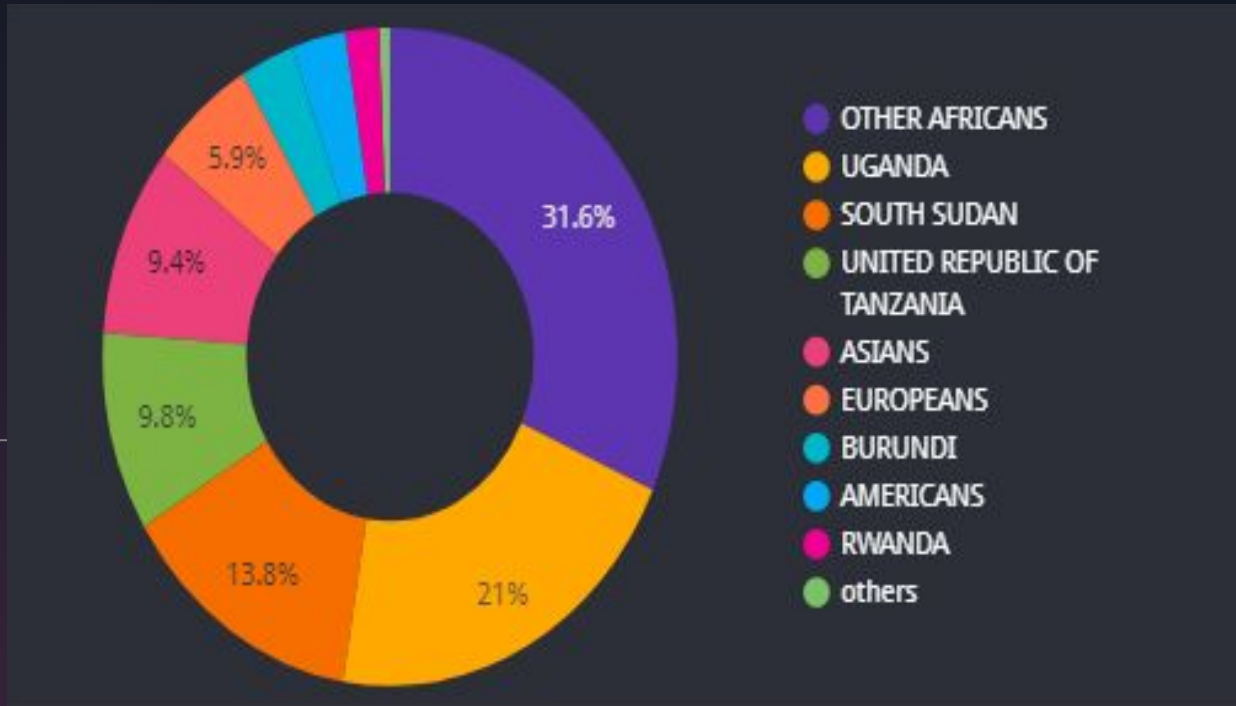

Total with disability – 0.9M
Male – 1.9%
Female – 2.5%
More disabled individuals in rural areas than in urban areas

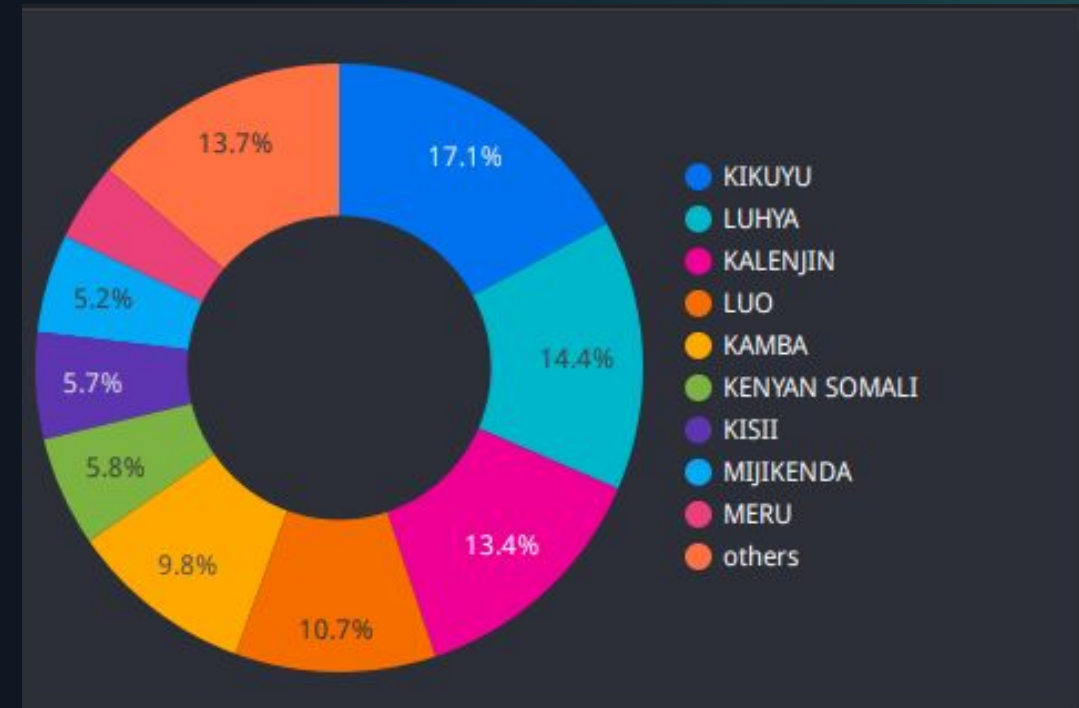# Disability Cont.

TOTAL: 918.3K

MALES: 394.3K

FEMALES: 523.9K

Visual : 333.5K

Hearing: 153.4K

Mobility: 85.4K

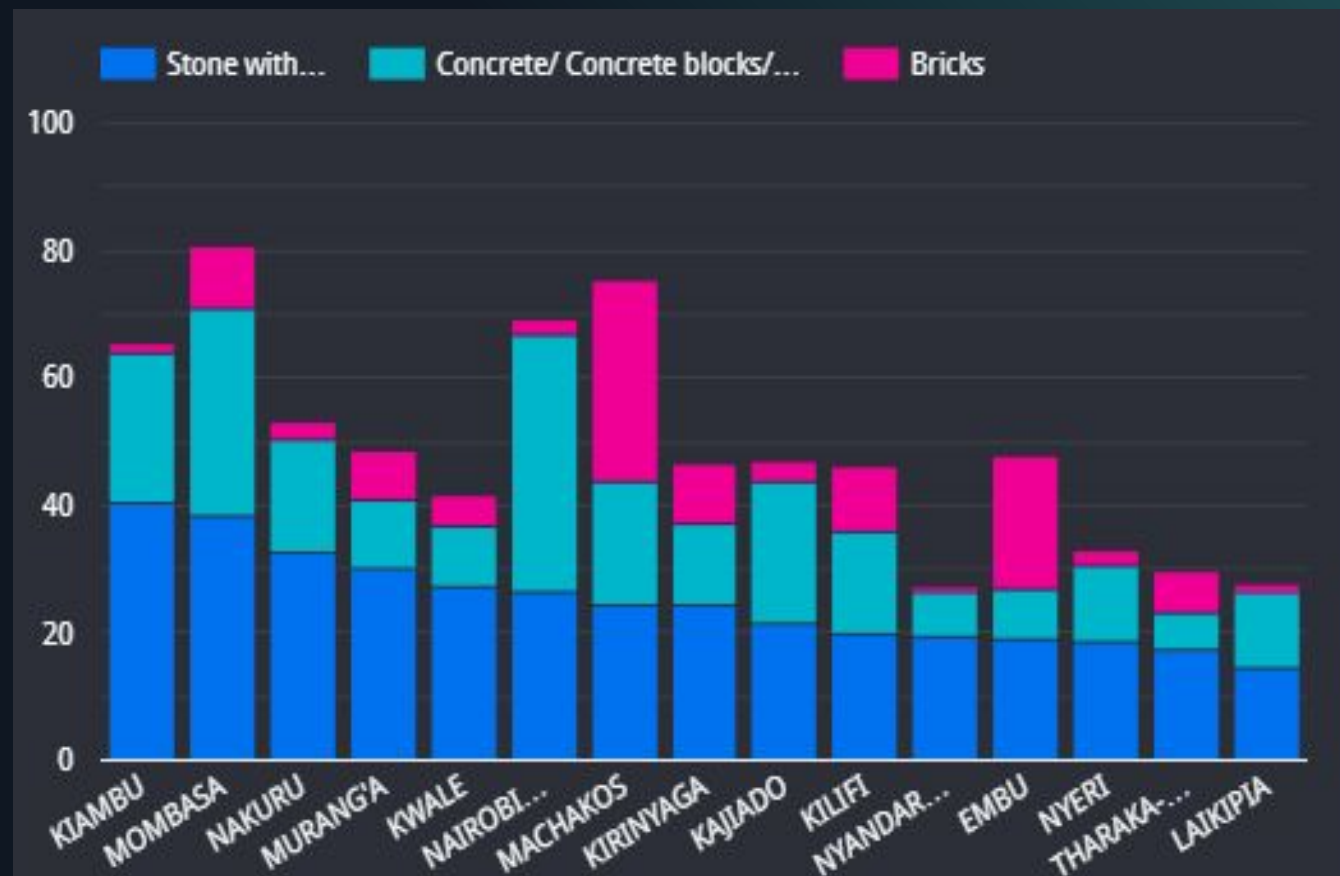Communication: 111.4K

# Ethnicity



*Distribution of non–Kenyans across the country*
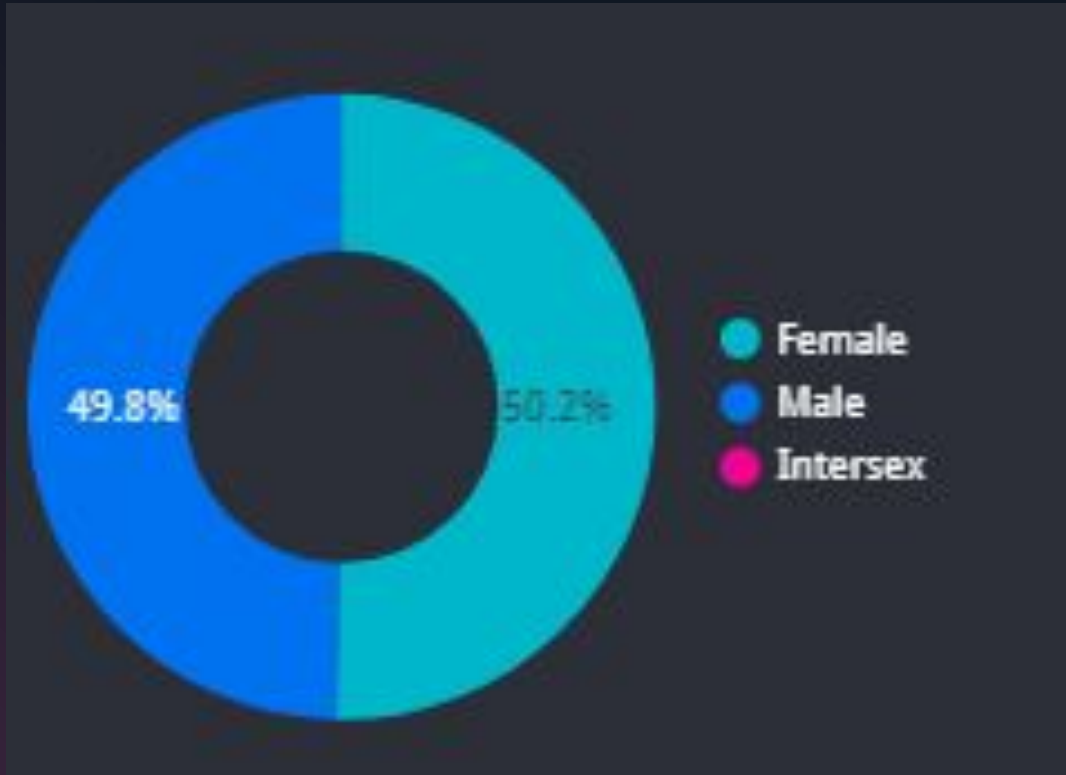


*Distribution of different Kenyan tribes*

# Housing

- Nairobi has the highest number of Houses constructed of iron sheets mainly slums and informal dwellings
- Due to the depletion of stones in quarries more sensitization should be done on the importance of brick constructed homes.



*Conventional wall distribution by county*

# Employment distribution



*Working Gender distribution*

| Person Seeking Work | 2 million |
|---|---|
| Persons Working | 19 million |
| Person outside the Labour Force | 18 million |

47.72% of the working population contributes to the GDP of the country.

# ICT

## Distribution of total population having mobile phones



| | | % vs Initial |
|---|---|---|
| Total Population Age 15 years and Ab... | 28,729,203 | |
| Total Population owning mobile phones | 20,694,315 | 72.03% |
| Total Population using internet | 9,869,962 | 34.36% |
| Total population using gadget | 4,527,254 | 15.76% |

## Internet Usage



- 21.3% NAIROBI CITY
- 9.6% KIAMBU
- NAKURU
- 5.4% MOMBASA
- MACHAKOS
- 3% KAJIADO
- UASIN GISHU
- MERU
- KISUMU
- 44% others
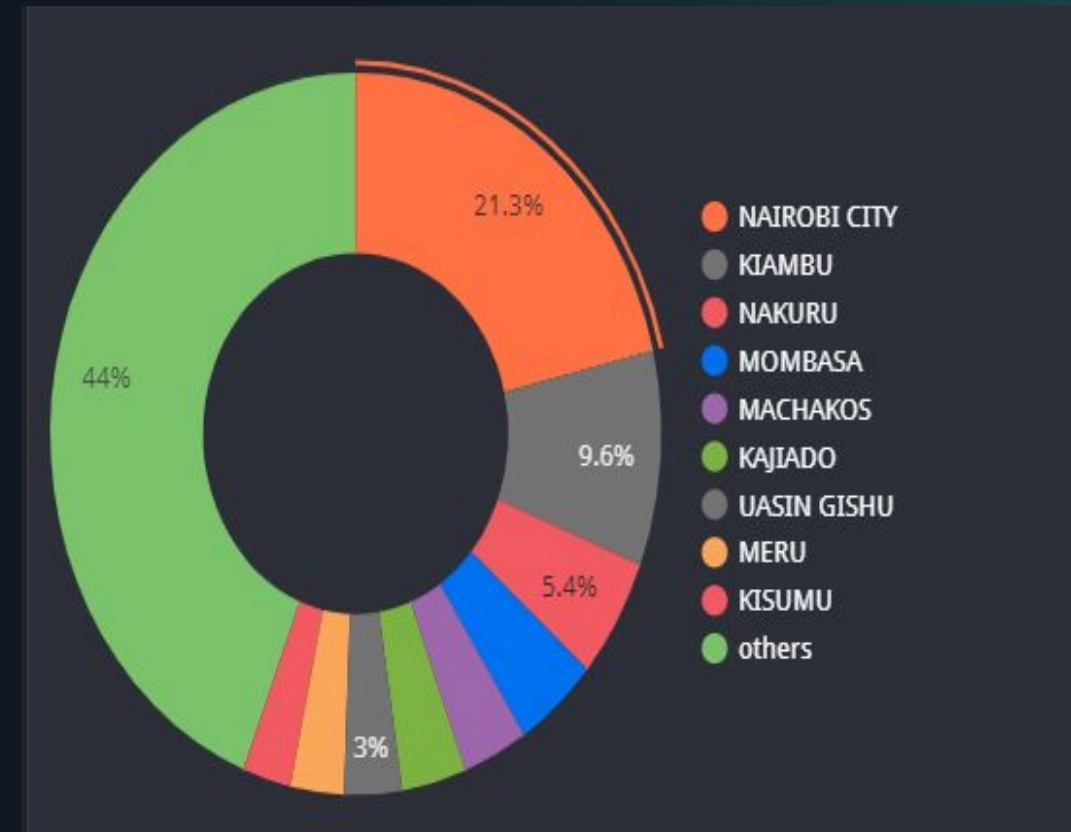
# Fertility rate

## <u>Births in the last 1yr</u>

| | | |
|---|---|---|
| TOTAL Births 1 yr | 1,340,468 | % vs Init |
| Health Facility 1 year | 1,148,706 | 85.69% |
| Non health facility 1 yr | 18... | 14.13% |

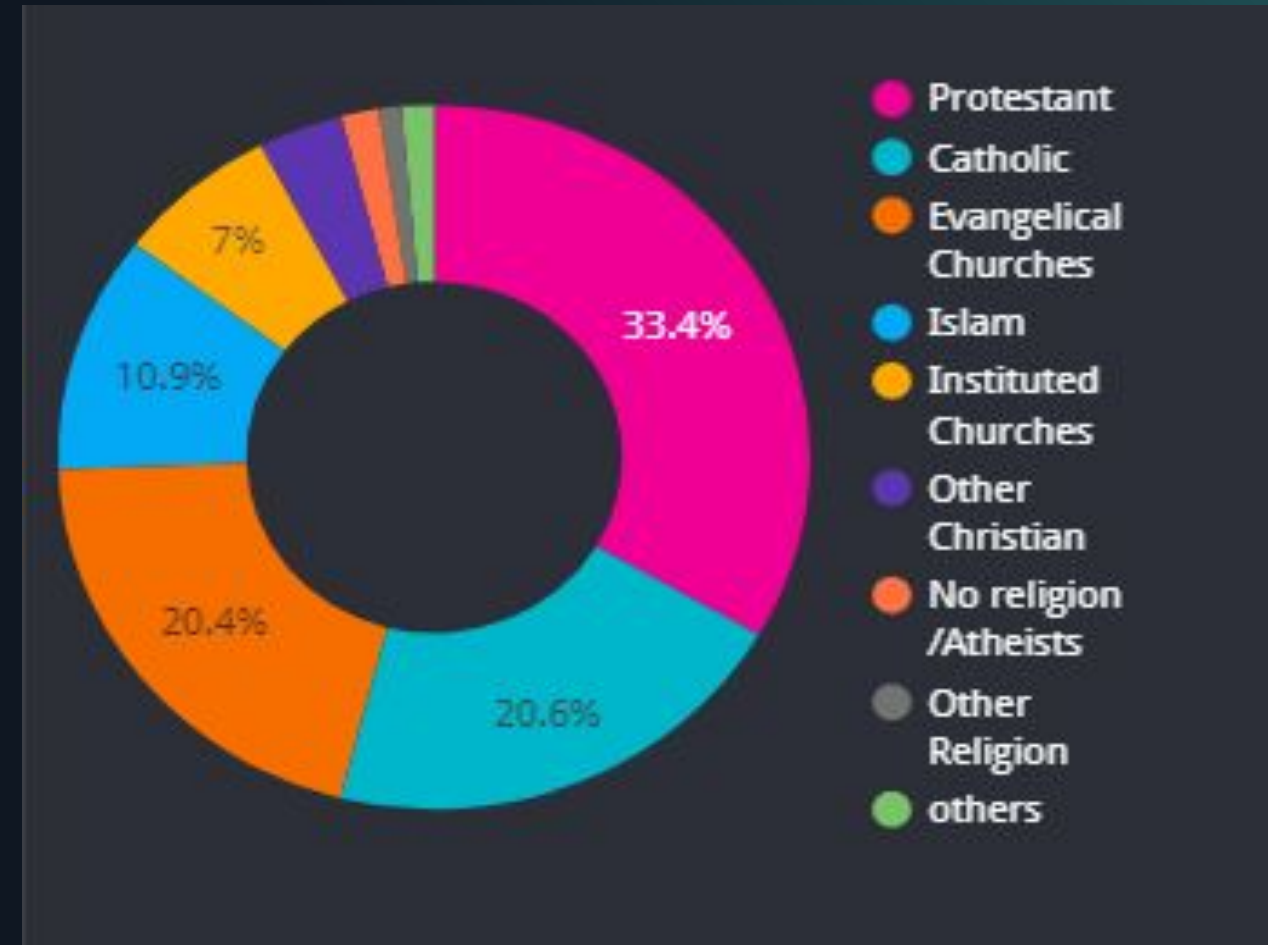| | | |
|---|---|---|
| TOTAL Births 1 yr | 1,340,468 | % vs Init |
| Notified 1 yrs | 1,212,142 | 90.43% |
| Not Notified 1 yr | 125,... | 9.38% |

- In 2019, birth rate for Kenya was 28.3 per 1,000 people. Birth rate of Kenya fell gradually from 50.9 per 1,000 people in 1970.

- We are close to what is referred to as the critical threshold of approximately 2 children born per woman.

# Religion

Most popular: Christians
Islams – 5.15M
Atheists – 755, 750



**Protestant** 33.4%
**Catholic** 20.6%
**Evangelical Churches** 20.4%
**Islam** 10.9%
**Instituted Churches** 7%
**Other Christian**
**No religion /Atheists**
**Other Religion**
**others**

*Religion groups across the country*

# Challenges faced/Wins

## 1

### Data Extraction

- The data we used came in PDF format and we had to extract the tables. It was time consuming.

## 2

### Power/Internet connectivity

- There were frequent power shortages and that affected our work.

## 3

### Wins: Visualization tools

- Learnt to use new tool: Data Studio🎉

# Recommendations

**3**

**Employment**

o The government should try and reduce the tax cap for business so that more youths can dive into entrepreneurship

**2**

**Housing**

o More sensitization should be done in Baringo, Bomet and Bungoma to sensitize on the importance and durability of tiles to other forms of flooring.

**1**

**Education**

o Affordable secondary education should be introduced to favour the transition from primary.

# Action Steps/ Future Scope

More visualizations should be done for;

➤ Population and Housing Census volume I:Population by county and sub county

➤ Population and Housing Census volume II:Distribution of Population by Administrative units

➤ Population and Housing Census volume III:Distribution of Population by Age, Sex and Administrative of the census dataset

# THANK YOU!

*Team Decoders*