Introduction

Christian John Makgala[§] and Rolang G Majelantle^{*}

Census taking is a very important national exercise which is carried out mostly after every ten years in Botswana. Census informs governments not just of how many people live in a given society but mostly for purposes of planning for provision of delivery of the much needed services. It is important that following a census experts from different fields such as Population Studies, History, Economics, Sociologists and Statistics among others study and interpret the data in the report to compile papers that explains various aspects and issues arising from a census. Therefore, following the 2011 national census in Botswana, the body tasked with running the exercise, Statistics Botswana, convened a seminar where various experts presented their views and observations of the census report. This special volume of the *Botswana Notes and Records* presents reviewed articles that were originally presented at the seminar held in the Fair Grounds Gaborone, 9-12 December 2013 in Gaborone.

Only one paper on the 'History of Census Taking in Botswana' was not presented at the seminar. It was written later to provide important historical insights into past census taking in Botswana up to the 2011 census. Fittingly, MG Charumbira, AN Majelantle, VK Dwivedi and BT Manatsha's article appears first as a historical piece. The authors provide an account of the History of census taking from 1904 when the first census was carried out in Botswana by the British colonial administration. It is noted that the censuses were conducted in 1904, 1911, 1921, 1936, 1946, 1956 and 1964, and all these experienced serious challenges rendering the results questionable. The authors also inform us that the 1964 census coincided with the constitutional talks and the first general elections which led to Botswana's independence in 1966. The uses of census and the list of census variables included in the various censuses are dealt with in this paper. The paper covers a period of some 110 years.

This is followed by an article by Kenabetsho Bainame and Gobopamang Letamo, on 'Evaluation of Data Quality of the Botswana 2011 Population and Housing Census'. Primarily their paper measures the accuracy of age-sex data collected in the 2011 Population and Housing Census (PHC) at the national level. Demographic analysis tools are employed to evaluate the 2011 PHC data, this is in cognizance of the fact that the vital registration system is incomplete and there was no post-enumeration survey conducted. The two authors observe that on the basis of Whipple's Index, Myers indices and Bachi Index, the quality of age reporting in the Botswana's 2011 census data is very good, and the data show that there was no serious digit preference. However, the results from the UN Age-Sex Accuracy Index indicate that the 2011 population census age data are not of good quality, with an index score of 21.0. They also caution that it should be noted that the UN Age-Sex Accuracy Index is unable to separate the inaccuracies and natural changes which raise questions of reliability of the index. According to Bainame and Letamo the application of the P/F ratio method in the evaluation of 2011 census data shows that ratios are above unity. This pattern implies that there is either an error of underreporting of current fertility relative to lifetime fertility or suggests a declining fertility trend in Botswana in the recent past or the mean parities were over-reported, we are told. They further state that the first two scenarios are more probable while the last one is highly unlikely given existing evidence. Their conclusion is that the census data is of acceptable quality and therefore the 2011 population data could

[§] Christian John Makgala, Department of History, University of Botswana. Editor of the Botswana Notes and Records. Email: makgalac@mopipi.ub.bw

^{*} Rolang G Majelantle, Department of Population Studies, University of Botswana. Guest Editor for this special issue. Email: majelarg@mopipi.ub.bw.

be used to derive credible estimates.

Kenabetsho Bainame and Gobopamang Letamo also author the article 'Fertility Levels and Trends in Botswana', in which they note that several African countries, Botswana inclusive, are experiencing fertility transition. The paper establishes fertility levels, trends and differentials using the census data from 1971 to 2011. In the words of Bainame and Letamo Botswana's total fertility rate (TFR) continues to decline from a high of 6.6 children per woman in 1981 to 3.3 in 2001 and to 2.8 children per woman in 2011. Most of the fertility decline between 2001 and 2011 is accounted for by the decrease in the fertility of the 15-29 year olds. Fertility rates of women residing in urban areas and those employed are consistently lower than those of their counterparts, which is consistent with previous research findings. The authors observe that estimated TFR of Botswana for 2011 resonates with those of other Southern African countries. They also argue that the sustained declines in fertility in Botswana combined with declining mortality have economic, health, educational and labour implications for the country. Therefore, appropriate policy directions that take into account these priorities are advised.

This article is followed by Gobopamang Letamo, Kenabetsho Bainame, Motsholathebe Bowelo on 'Nuptiality, Levels and Trends in Botswana'. They examine emerging marriage patterns and trends in Botswana using population census data from 1971 up to 2011. The study shows that fewer and fewer men and women who are eligible for marriage are getting married and the proportion of people who are cohabiting is on the increase. The percentage of the population married declined from 42.9% among women and 47.1% among men in 1971 to 17.9% and 18.8% respectively in 2011. The proportion of population who were unmarried increased from 37.0% among women and 44.0% among men to 53.4% and 58.1% respectively in the same period. The authors attribute these changes to the changing socio-economic conditions such as increasing levels of education and female participation in the labour force, urbanisation, modernisation and westernisation. Their conclusion is that given this scenario, it is imperative that detailed studies are undertaken to have an in-depth understating of the causes and consequences of the changing nuptiality patterns in Botswana.

Brothers Wilright Malema in his piece 'Unemployment and the Attributes of the Unemployed in Botswana' states the 2011 PHC indicates that the country's unemployment rate stands at 17.8% which is significantly high. Malema argues that this rate of unemployment, as is conventionally calculated, excludes the discouraged job seekers and could as such be considered an underestimation of the real rate of unemployment. Therefore his article tries to find out the areas of expertise most affected by unemployment. His entire analysis is based on the questions and answers from the census. According to Malema, of all the unemployed tertiary graduates 8.73% of them were in Accounting. The other most popular programmes or areas of expertise were Computer Science, Typing/Shorthand and Business/Commerce at 7.14%, 6.36% and 5.33% respectively. He concludes that all these popular programmes were dominated by females at 55%.

K Navaneetham and VK Dwivedi's 'Patterns and Differentials of Migration in Botswana' point out that migration is an important component of population growth and it has significant social and economic implications for a country. To that effect, their paper analyses the patterns and differentials of internal migration in Botswana using the 2011 PHC data. This takes into account lifetime migrations and short-duration migration. The study noted that the volume of internal migrations has increased over the years and patterns also changed over time. During the period 2010-2011, there were about 165 thousands in-migrations and 149 thousands out-migrations in Botswana. As regards the international migrations, the study noted that an emigration of 1203 persons and immigration of 17,375 persons during 2010-2011 took place. The major destinations for immigration are Gaborone and Kweneng East. It was observed that among the immigrations more than 50% of them were from Zimbabwe. As regards the migrations differentials the propensity to migrate is almost the same for both males and females which contrasts to the general trend in most developing countries. Navaneetham and Dwivedi

also inform us that the propensity to migrate is greater among adults (15-34 age), the educated, those who have never married, those living together, Christians, the employed, jobseekers and students. Their conclusion is that this flow among the population is likely to increase in the future and therefore appropriate policies need to be developed to meet the demands created due to migrations. The demands the authors are talking about refer to services such as housing, water, sanitation and other infrastructural facilities.

An article entitled 'Policy Implications of Urbanisation Patterns and Processes in Botswana' by Thando D Gwebu investigates the patterns and trends of urbanisation in Botswana using data obtained from the census reports. The results of his study indicate that there is rapid urbanisation leading to over-urbanisation, peri-urbanisation and short distance urban-rural migration. He observes that the urban hierarchy is dominated by the major metropolitan centre that exhibits megacity tendencies. The capital city is eccentrically located within the national space economy. Gwebu makes recommendations on how to organise and manage urban space to promote sustainable urbanization.

Gofaone Kgosidintsi and Serai Daniel Rakgoasi in their paper 'Notes on Levels and Patterns of Child Labour and Child Work in Botswana' document the levels and patterns of child labour and child work in Botswana. They are of the view that the results show that only 2.1% of children aged 12 to 17 were involved in some kind of employment. They also tell us that the percentage of children involved in child labour is highest among older children, those heading households or children classified as spouses of heads of household. This is also high among those who were not related to head of households, and orphaned children, they say. The authors conclude that other significant variations in likelihood of child labour were children who ever been in unions, children affiliated to non-Christian religions, those residing in Kweneng West District, Ngwaketse West District, and Ghanzi District, as well as children whose home language was 'Zezuru'/Shona, Ndebele and Sesarwa were more likely to be engaged in child labour.

Kenabetsho Bainame, Denise Burnette and Sheila Shaibu write on the 'Socio-demographic Correlates of Older Adults' Living Arrangements in Botswana'. Using data from the 2011 PHC they are able to examine the living arrangements of adults aged ≥ 65 years and assess individual-level and household-level correlates of living alone for this age sector. They observe that overall 12.6% of older persons lived alone and a higher percentage of this group resided in rural villages and settlements, and they were more likely to be male, younger, and non-Christian and to have attained tertiary education and working. The authors note that 6% of older adults who lived alone resided in very poor households and they fared worse economically than those in shared living arrangements. Their most common disabilities were vision (9.8%) and hearing (4.1%) impairments, with 22.2% of the former and 21.1% of the latter living alone. The article also discusses policy and practice implications for Botswana's aging population.

Rolang G Majelantle briefly focuses on infant and childhood mortality levels and trends in Botswana. His paper is based on the Botswana Demographic Survey (2006), and the 2001 and 2011 PHC data. He says that the 2011 census helps to estimate the past and current levels of infant and childhood mortality. He was also interested in exploring whether there still exists mortality differentials between the urban and the rural areas. The data he used shows that infants and children in the urban areas enjoy higher chances of survival than their rural counterparts. The author also explores at national and district level whether the girl child enjoys relatively higher chances of survival than the boy child as shown by findings from previous censuses.

Rolang G Majelantle also provides the final article in this collection and it is entitled 'Notes on Adult Mortality Levels and Trends in Botswana'. Here he relies on the data from the 2011 PHC to examine levels and trends in adult mortality in Botswana using information on the distribution of deaths and population by age. He is of the view that estimates of mortality indicate that mortality levels

in Botswana have gone down between 2001 and 2011 nationally and across all districts. The data also shows that gains in life expectancy favoured urban areas to rural areas. Majelantle notes that the gains in life expectancy experienced in the 1980s and reversed in 2001 have been regained, may be as a result of scaling up access to the provision of antiretroviral treatment since 2001.