

SYNTHESIS REPORT



CAPITALIZING ON BOTSWANA'S

YOUNG PEOPLE

An Evidence Brief prepared for UNFPA Botswana



SUSTAINABLE DEVELOPMENT GOALS



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1. Background

This report synthesizes the key findings of an evidence brief prepared by the Development Policy Research Unit (DPRU) at the University of Cape Town's School of Economics in 2020. It was commissioned by the UNFPA, with the support and collaboration of the Government of Botswana, and focuses on Botswana's youth, aged 15 to 35. The aim is to provide evidence to support policy actions that will maximize the advantages of having a youthful population (median age is 24) and contribute to the well-being of all citizens. Consequently, this brief examines four important youth-related areas in terms of capitalizing on the demographic dividend: fertility, education, health, and the labour market. A second evidence brief prepared by the DPRU, *Preparing for an Ageing Society in Botswana*, supports national efforts to provide for the next phase of the country's demographic transition when the youth bulge reaches retirement age in 2050.

2. Context

In Botswana, a decline in the birth rate following strategic investments in sexual reproductive health (SRH) has created the conditions for a demographic dividend, i.e. the potential that comes from a nation's working-age population being larger than its non-working-age. However, estimates of the demographic dividend using National Transfer Accounts (NTA) suggest that the dividend period peaked in the late 2000s and will end in less than 50 years. Its positive impact on economic growth and living standards has waned considerably since and is projected to continue shrinking from 0.58 per cent per annum in 2020 to 0.29 per cent in 2040 and just 0.13 per cent by 2050 (based on medium-fertility population projections).

Building on earlier work on Botswana's demographic dividend (AFIDEP, 2018), the brief explores trends related to the country's youth population and discusses the implications for the extent of dependency in Botswana. It presents updated estimates of the economic life cycle, disaggregated by gender to show the impact of unpaid care work on gender equity. It also examines the factors affecting the demographic dividend and the policy interventions that can help make the most of the remaining window of opportunity.

3. Botswana's Youth Population

3.1 National Population Trends

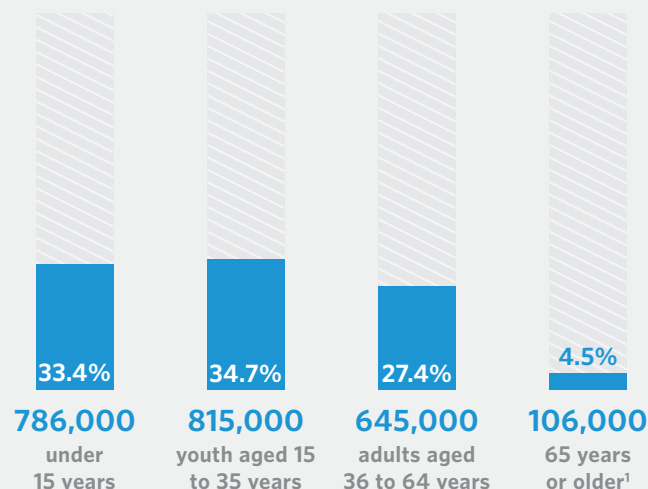


BOTSWANA IS AN UPPER-MIDDLE-INCOME COUNTRY WITH AN ESTIMATED POPULATION OF

2.35 MILLION

Based on the medium-fertility variant, the population of Botswana is expected to peak at almost 4.17 million in 2099. The youth population is estimated to have peaked around 2000 at almost two-fifths of the total population, while the adult population is projected to peak around 2080 at nearly two-fifths of the population. The elderly population is projected to rise from 3.3 per cent in 2000 to 7 per cent in 2040, 16.9 per cent in 2080, and 21.1 per cent by 2100.

Despite the drop in fertility rates, the child population is projected to grow in absolute terms, peaking at almost 824,000 in 2047. The youth population is projected to peak in the mid-2060s. Thus, while the child and youth populations may not be the most rapidly growing cohorts, they remain significant in absolute and relative terms beyond the end of the twenty-first century, emphasizing the ongoing need to prioritize education and employment.



20.9% One-fifth reside in **cities and towns**

43.0% Two-fifths reside in **urban villages**

36.1% More than one-third reside in **rural areas**



¹ These numbers are broadly in line with estimates from the 2017 Botswana Demographic Survey. The United Nations (2019) estimate of the total population is 2.3 per cent higher than the official estimate, with the overestimates of around 5 per cent for youth and adults, and 1.4 per cent for children under 15 years, and an underestimate of the elderly population of 22.4 per cent (own calculations, based on United Nations, 2019; Statistics Botswana, 2018).

3.2 Youth Population Trends

Youth aged 15 to 35 comprised an estimated 852,000 in 2020. This cohort is expected to continue to grow by roughly 1.3 per cent per annum and reach 1.1 million by 2040 before peaking at just over 1.15 million in the mid-2060s and then gradually declining.

Although projected to continue growing in absolute terms over the next four decades, it is already in decline in relative terms, having gone from just over 40 per cent of the country's population during the first decade of this century to an estimated 36.2 per cent in 2020. By the mid-2060s, the youth share of the population will be around 31 per cent.

The share of the population accounted for by youth aged 15-24 years follows a similar pattern, peaking at 22.5 per cent in the first few years of the 2000s and declining to an estimated 18.3 per cent of the current population, it is expected to fall below 14 per cent by the late 2060s.

**Aged
15-35
years**

852,000
in 2020

**WILL CONTINUE TO
GROW BY ROUGHLY**

1.3%
per annum

and reach 1.1 million by 2040 before
peaking at just over 1.15 million in the mid-
2060s and then gradually declining.

**Age
15-24
years**

22.5%
population in 2000s

DECLINING TO

18.3%
in the late 2060s

3.3 Population Change and Dependency

In Botswana, the total dependency ratio (proportion of the population likely to be dependent on the support of others) was estimated at 61.1 per cent in 2020, down from a high of 107.8 per cent in 1980. Thus, there were roughly 61 children and elders in Botswana in 2020 for every 100 working-age adults, compared to 108 children and elders in 1980, implying diminishing pressure on the

resources generated by the working-age cohorts. The dependency ratio is projected to continue declining over the next two decades, falling below 49 per cent by late 2030, after which it is expected to stabilize, rising to current levels by the end of the century.

**Dependency
ratio**

107.8%
in 1980
DECREASED TO
61.1%
in 2020

**61 children and elders in Botswana for every
100 working-age adults, compared to 108
children and elders in 1980.**

**Projected to
decline further
to below**

49%
by late 2030

**after which it is expected to stabilize,
rising to current levels by the end of
the century.**



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4. The Economic Life Cycle, Demographic Change, and the First Demographic Dividend

4.1 The Economic Life Cycle

The life cycle deficit (the difference between consumption and labour income at each age) is large and positive for young people and the elderly. In Botswana, a life cycle surplus is generated by a relatively small number of cohorts (those aged 33 to 55 years, or 23 single-year age cohorts) compared to other countries. A comparison of available estimates for African countries indicates that this surplus period is shortest in Botswana (23 years), followed by Ghana at 28 years and Namibia, Eswatini, Gabon, Ethiopia, and South Africa at 30 years. The median globally is 32 years.

Among children, the life cycle deficit follows the consumption profile closely, deviating from it only to the extent that cohorts earn positive labour income. The life cycle deficit among young people peaks at 0.941 at age 16 and falls rapidly thereafter as cohorts exit the schooling system and enter employment. By age 25, the life cycle deficit is just over one-third (34.2 per cent) of peak labour income and, by age 32, consumption and labour income are effectively in balance.

For older adults, the return to a life cycle deficit occurs at age 56, with the deficit growing rapidly as declining labour income is mirrored by declining consumption over time.

The life cycle deficit among young people

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0.941
at age 16

By age 25

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34.2%
of peak labour income

By age 32, consumption and labour income are effectively in balance.

4.2 The First Demographic Dividend

As countries transition from a steady-state characterized by high fertility and high mortality to low fertility and low mortality, the age structure of the population changes. Since mortality, particularly child mortality, falls first, a series of 'boom' generations are created, resulting in a young population. Over time, as fertility falls, the average

age of the population begins to rise, and the large 'boom' cohorts enter the working ages. This process decreases the number of children per working-age adult, with each working-age adult having fewer dependents to support than before. This reduction in economic dependency creates space for societies to raise living standards and invest in human and other forms of capital. This is the first demographic dividend.

In Botswana, the first demographic dividend has been in decline since 1990, falling from 0.66 per cent to around 0.58 per cent (2020). Over the next four decades, the first demographic dividend will continue to decline in size and is expected to turn negative in 2067.

Given that much of the first demographic dividend period lies in the past, policy advice is more urgently focused on maximizing what remains of the dividend.

4.3 Gender, and Market and Non-Market Production

The research suggests that resource flows across the life cycle differ systematically by gender for several reasons. These include gender differences in participation in and progress through the education system, engagement in the labour force and likelihood of employment, the extent and duration of interruptions in employment related to child-rearing, the magnitude of accumulated retirement savings, and inheritance rights and customs. The gendered nature of responsibility for care in most countries, Botswana included, contributes significantly to the gender gap in labour income, with women carrying a disproportionately higher share of the burden.

The impact of child-rearing responsibilities on labour force participation raises the key issue of unpaid care work compared to market work. Both are productive forms of labour, except that the latter is paid. This divide is deeply gender-specific, with women and girls typically specializing in unpaid care work while men and boys specialize in market work. Unpaid care includes direct care for individuals both within and outside of the household and indirect care activities, such as cooking and cleaning. Responsibilities for unpaid care work often make significant claims on the time available to female household members. Given the limit of 24 hours in a day, require that time be reallocated from other activities, such as market work, education, leisure, or self-care.



4.3.1 The Economic Life Cycle by Gender

Gender disaggregations of the economic life cycle in Botswana reveal significant discrepancies in per capita labour income, substantially favouring men at virtually all ages except for those under the age of 30.

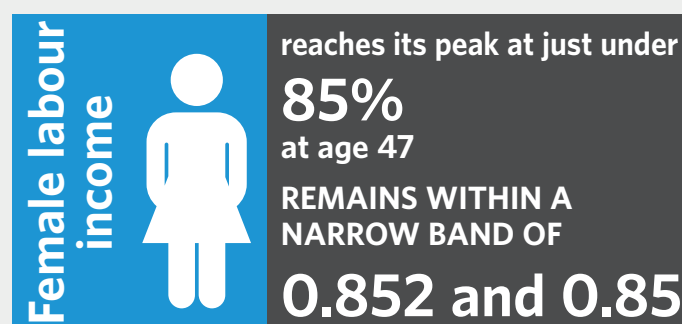
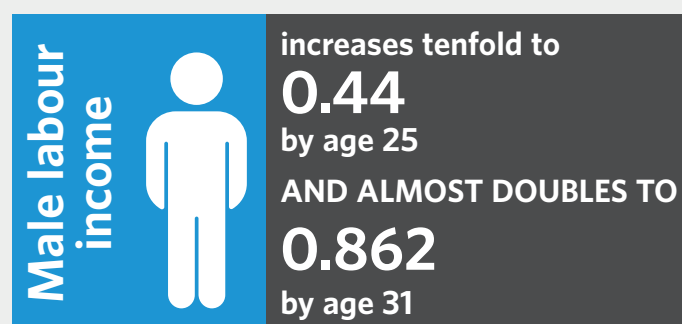
Male labour income increases tenfold to 0.44 by age 25 and almost doubles to 0.862 by age 31. By age 35, male labour income is nearly one-quarter (23.4 per cent) higher than peak labour income; it remains between 20 per cent and 30 per cent higher than peak labour income until age 50. The decline in labour income accelerates at older working ages so that it is 0.696 (30.4 per cent below peak labour income) by age 61 and just 0.324 by age 67. The female labour income profile reaches its peak at just under 85 per cent of peak labour income at age 47, although it is essentially flat from age 34 to age 50. For these cohorts, it remains within a narrow band of 0.825 and 0.85. Similar to males, female labour income begins

to fall rapidly after age 50: it falls below 0.7 by age 55 and below 0.35 by age 63.

In combination, these labour income and consumption profiles yield very different life cycle deficits for males and females. Men produce life cycle surpluses from age 31 to age 59, a span of 29 years, and six years longer than the national level profile. In contrast, women produce life cycle deficits at every age, so their per capita labour income never exceeds their consumption.

The stark gender gap in labour income presents a skewed picture of the economic contributions of men and women across the economic life cycle, with women specializing in (unpaid) care work and men specializing in (paid) market work.

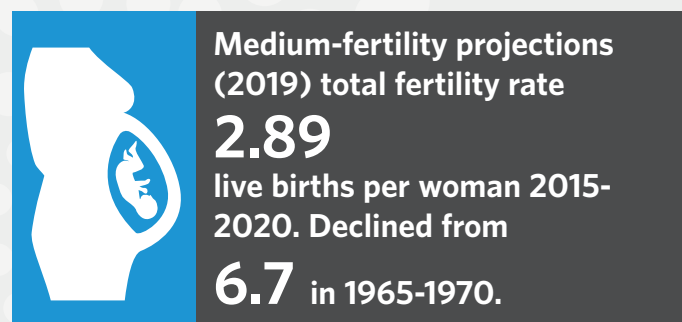
Policies that seek to shift women into paid employment need to ensure greater sharing of unpaid care work within the household.



5. Factors Impacting the Realization of the First Demographic Dividend

5.1 Fertility

Population projection is one of the key data inputs for estimating the demographic dividend in the future. Based on medium-fertility projections, the United Nations (2019) estimates the total fertility rate in Botswana to be 2.89 live births per woman in the 2015-2020 period. This substantial decline from a peak of 6.7 births in 1965-1970 is due primarily to Government support for family planning, with upward of 90 per cent of Botswana women having used or currently using contraception.



While fertility in Botswana is substantially lower than the broader sub-Saharan African region (4.72 live births per woman in 2015-2020), it is nearly one birth per woman higher than the average upper-middle-income country (1.9 births) and 0.42 births higher than the global average.

Medium-fertility projections see Botswana's total fertility rate continuing to decline through the rest of the twenty-first century, reaching 1.80 births by 2095-2100, although the pace of the decline will have slowed substantially by the middle of this century to 0.01 births per woman per annum from 2055-2060 onwards.

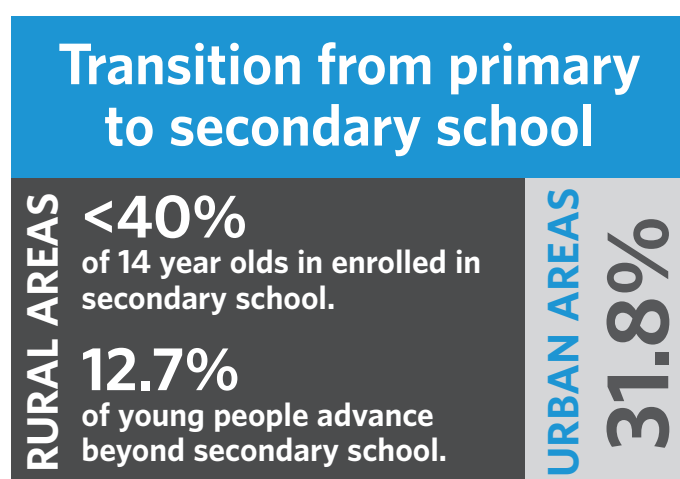
Even when modelled against high fertility, low fertility and constant fertility projections, it is clear that the trajectory of the first demographic dividend over the long term is downward and, by the mid-2080s, the dividend will be negative. However, over shorter periods, there can be stark differences in the estimated size and trend of the dividend. Should fertility fall faster in Botswana than projected under the medium-fertility projection,

it would boost the magnitude of the first demographic dividend over the next two or three decades, although it will also shorten the current period of positive first dividend by around ten years relative to the medium-fertility projection. Assumptions of higher fertility rates would have an unequivocally negative impact on the first dividend, thus accentuating the need for urgent policy action with tangible results viz a viz sexual and reproductive health rights during this period.

5.2 Education

While the youth are substantially more educated than their older counterparts, they have comparatively poor labour outcomes, being less likely to participate in the labour force and, on entering the labour market, being more likely to be unemployed. Further, among youth, labour market outcomes are weaker for women. A large proportion of youth are not in education or training, despite substantial investments by Government in education, which represents a considerable loss for society.

There are notably low rates of transition from primary to secondary school, with less than 40 per cent of 14-year-olds enrolled in secondary school, particularly in rural areas where only 12.7 per cent of young people advance beyond secondary school compared to 31.8 per cent for urban youth. The data also reveals a drop off in school enrolment at age 16 in what would be the final two years of a typical secondary school curriculum signalling that learners have exited the education system.



There is a very clear gender disparity in secondary school enrolment, with females more likely to enrol in secondary and tertiary education. Enrolment in secondary education is significantly lower in rural areas where only 4 out of 10 secondary-school aged individuals are enrolled in an educational institution compared to over half in urban areas.

However, having a post-secondary or tertiary education is no guarantee of employment: barely two-thirds of young people with post-secondary education and only half of those with a secondary qualification have participated in the labour force (although youth with higher levels of education have an advantage over their less-educated peers). These labour market indicators provide a compelling argument for education interventions that better prepare youth for the labour market and economic development policies that create employment opportunities.

5.3 Health

The health of the labour force is a crucial factor in sustaining and enhancing labour force participation, productivity and, by extension, the demographic dividend. When individuals suffer health-related limitations, they are less likely to participate in the labour force (and, if they do, are often less productive – a loss compounded by the burden of costly health care on the State).

Despite great strides in the provision of health care over the last decade, driven by increased public expenditure on health as a share of GDP, HIV/AIDS remains one of the largest risks to the population. Rates of infection are reportedly 5.9 per cent and 19.3 per cent for the youth and non-youth populations, respectively.

This finding contrasts with global data showing that non-communicable diseases are the leading causes of death, collectively responsible for 70 per cent of fatalities. In Botswana, non-communicable diseases are not prominent in the youth population, with the most common health condition being abnormal blood pressure (4.5 per cent), followed by asthma (3.3 per cent). Even in older cohorts, where non-communicable diseases are more prevalent, only abnormal blood pressure rivals HIV/AIDS, with 26.5 per cent of the population being affected.

Youth are also far less likely to seek medical attention for a disease, a factor that has been blamed on a lack of parental support in seeking treatment, few youth-friendly medical facilities, and operating hours that don't consider school timetables.

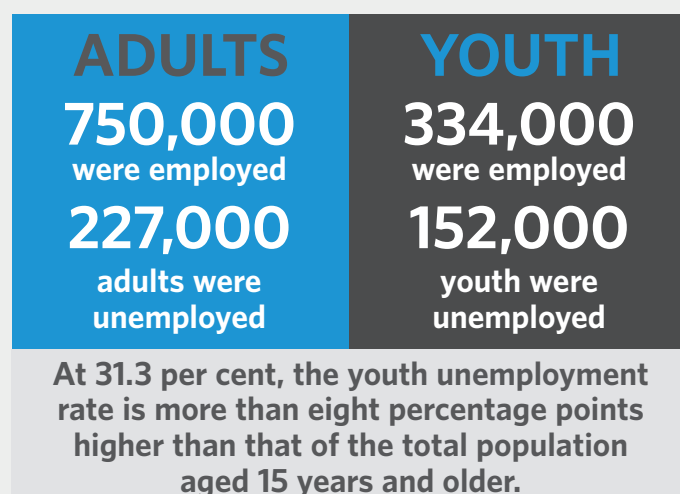
While relatively few youths reported a disability, only around half of all females (45.1 per cent) and males (54 per cent) are within the normal body mass index (BMI) range. While approximately 1 out of every 10 young women was underweight, this figure nearly doubled for their male counterparts (18.8 per cent). At the upper end of the BMI spectrum, 43.9 per cent of females were classified as overweight or obese, compared to 27.3 per cent for males, a factor that increased with age.



5.4 The Labour Market

A key institution through which the demographic dividend is realized is the labour market. Consequently, labour market policies that promote the productive employment of the working-age population are critical.

A snapshot of key labour market indicators for Botswana, differentiating between all adults aged 15 years and older and youth aged 15-35 years, shows that in the first quarter of 2020, just over 750 000 were employed, while approximately 227,000 adults were unemployed. Among youth, the employed numbered approximately 334,000 and the unemployed 152,000. These figures suggest significant differences in unemployment rates between youth and non-youth: indeed, at 31.3 per cent, the youth unemployment rate is more than eight percentage points higher than that of the total population aged 15 years and older (23.2 per cent).



Like many other countries, Botswana faces challenges related to so-called NEETs: these youth who are not in employment, education or training (NEET) represent two-fifths of the total youth population, with the proportion even higher for female youth (42.3 per cent). Among youth, the cohort aged 20-24 years had the highest likelihood of being classified as NEET (32.7 per cent).

Relatively low rates of labour force participation and high unemployment rates translate into low employment-to-population ratios. At 45.9 per cent, this ratio indicates that the employed constitute less than half of the population aged 15 years or older. Among youth, the proportion is even lower at 39.4 per cent. Further, even where individuals are employed, significant proportions are underemployed, with the vast majority (74.5 per cent) being women. The relative scarcity of work – whether through unemployment, underemployment or non-participation – is linked to relatively slow rates

of employment growth. Growth in employment over the last two decades averaged approximately 2.5 per cent per annum between 2005 and 2020; roughly one percentage point higher than the population growth rate for 15-35-year-olds between 2000 and 2020, and close to one percentage point lower than the growth rates for the older adult population.

Low rates of participation, high rates of unemployment and the existence of underemployment all serve to depress the NTA labour income profiles and contribute to the relatively low per capita labour incomes among Botswana's youth, with women experiencing even lower mean labour incomes relative to men. This is compounded by the fact that among the employed, mean cash earnings are around 17 per cent lower for women than men.

An important factor influencing labour incomes is occupation, and a shift in employment towards more highly skilled occupations would raise average per capita labour incomes. More rapid job creation and the absorption of the unemployed into productive work would also exert upward pressure on labour incomes. Similarly, shifts over time that would see women account for an increasing proportion of employment in more highly skilled occupations would reduce women's disadvantage in terms of per capita labour income. The same would be true of rising female labour force participation rates and falling female unemployment rates relative to men's.

Since labour market conditions underpin the labour income profile, they are a key arena for policymakers attempting to maximize a demographic dividend. Interventions such as creating jobs to raise employment rates and improving wages impact the level and shape of the profile over time, thereby potentially increasing both the duration and the magnitude of the first demographic dividend.

The brief concludes that gradually shifting Botswana's labour income profile over time to more closely resemble the global median profile, and closing the gender gap would boost Botswana's demographic dividend. The greater the degree of convergence, the better the outcome. Even so, a 25 per cent convergence over the three-decade period would raise the average dividend over the 2020-2050 period from 0.36 per cent per annum to 0.54 per cent per annum, an increase of roughly half. Narrowing gender gaps in the labour market may be particularly appropriate in countries in the latter stages of their first demographic dividend periods. In Mauritius, for example, it has been shown that narrowing gender gaps in labour income may be able to reignite the dividend.

5.5 Family Planning and the Unmet Need for Contraception

While contraceptives are widely used in Botswana, there are still a significant number of women who report non-use of contraception for reasons such as disapproval by partners, lack of knowledge, or religious reasons, suggesting scope for policy intervention. One of the key issues impacting women in Botswana is a lack of access to family planning services, particularly the prevalence of an unmet need for contraception, specifically among young females who have low levels of education, live in rural areas, and come from poor households. The disadvantages of a lack of easy access to family planning for women include decreased rates of enrolment in education and training institutions, fewer opportunities for employment, and lower wages.

Family planning policies should aim to address two key outcomes: making family planning services more accessible, particularly to vulnerable populations, and empowering women to make their own decisions about their reproductive health through education and counselling. While Botswana has several existing family planning policies which fit into these two categories, a key challenge to the provision of family planning services is limited transport and financial resources allocated to the promotion of health education across all districts, compounded by a lack of community-based media platforms, reducing the scope for developing educational materials targeting specific problems facing a particular district.

5.6 Skills Development and Youth Employment

In Botswana, the youth are disproportionately affected by high levels of unemployment and slightly lower levels of labour force participation when compared to those of prime working age. Young people are also more likely to work in low-skilled occupations, owing in part to a lack of post-secondary training among the Botswana youth. Another feature of the country's labour market is the degree of inequality in labour outcomes between women and men, as evidenced by, among others, higher rates of underemployment and considerably lower mean wages for the former.

Championing the employment of young people carries the prerequisite that interventions are put in place to ensure that learners receive quality basic education and some form of post-schooling training to equip them with the skills necessary to find and keep work.

In addition to the measures already outlined in Botswana's National Development Plan 11 to address this, policies should address four sets of issues: (i) quality of education, with a focus on promoting an interest in Science, Technology, Engineering and Mathematics (STEM) among young girls; (ii) the mismatch between the skills held by the youth and those required by employers; (iii) the role of apprenticeships and on-the-job training; and (iv) providing resources for entrepreneurs. Underlying many of these programmes is a focus on the upliftment of females both through targeted skills development and the promotion of female entrepreneurship.

7. Conclusion

The extent to which Botswana can reap the remaining first demographic dividend is dependent on the educational, health and labour market outcomes of the country's significant youth population.

Policy interventions have the ability to potentially strengthen (or weaken) the dividend or prolong (or shorten) the positive dividend period.

Education, health and labour market policies that improve the employability, productivity and remuneration of young people will be crucial if Botswana is to maximize what remains of the first demographic dividend.

Improving the labour incomes for youth cohorts, addressing gender gaps in these areas and addressing the challenges facing young people as they engage in the labour market can substantially boost the magnitude of the dividend. The second demographic dividend, which arises if ageing boom cohorts accumulate savings over their working lives, will be substantially eroded if young people are unable to find productive employment. Thus, growing the Botswana economy along an appropriate growth path that prioritizes the creation of good quality jobs and enables young people to leverage their skills must be a primary policy objective.



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