



# IMPLICATION OF POPULATION DYNAMICS AND HUMAN DEVELOPMENT IN GHANA

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## ABSTRACT

Population dynamics can serve as a potential catalyst for development and economic growth if well managed in Ghana. The study investigated the implication of population growth for human resource development in Ghana. A descriptive research design was employed to study the relationship between population growth and human resources development a document analysis using secondary data obtained through desk review method used for discussion of results. Findings revealed that population growth does have positive and negative implications for Human Resources Development specifically in education, health, migration, and employment in Ghana. On this basis, the study recommended that human resources development should be improved in all aspect such education, provision of healthcare to minimize, and as well as neutralize the demographic dividend that can translate into social and economic development.

**Keywords:** Population growth, Demography, Human Resources Development, Ghana.

## Introduction

Population dynamics can serve as a potential catalyst for development and economic growth if well harnessed in Ghana. Population dynamics have long been a major concern for developing countries. While rich countries see negative population growth, some sub-Saharan African countries, such as Ghana, see population expansion outpacing economic growth (Zahonogo,2016; Saghir & Santoro,2018). Ahead of the deadline for the Sustainable Development

Goals (SDGs), the focus has shifted to population growth and human resource development (United Nations,2015; Swian,2018). Social scientists have long questioned the impact of population on micro and macroeconomic performance (Vashundra, 2012). People are a key determinant for socio-economic development. Their contributions to population growth and human resources development cannot be underestimated.

The contributions of population growth to a country's development are enormous but to list a few, it may include;(1) The labors force expands as the population grows, resulting in increased output and economic growth. (Yakubu, Akanegbu, & Jelilov,2020), and (2) It expands the consumer market for both native and foreign goods, perhaps attracting foreign direct investment (Erdogan & Unver,2015). Countries in the industrialized world are dealing with population growth that is not slowing down. This is because several policies have been implemented to encourage certain types of professionals and people with special skills to move to their countries to promote population growth (Turner,2018; Anson, Bartl,& Kulczycki,2019).

Incentives have also been provided to stimulate procreation and labor. Countries like Spain, for example, has sex minister. Even though they are mostly capital intensive and technologically savvy, they nonetheless require a reasonable population to maintain system equilibrium (Ahmed,2017; Chae et al.,2018). In the early 19th century, population growth attracted the attention of scholars. Malthus' theory raises concerns about the possibility of starvation and the world's inability to sustain itself based on population growth (Deliu &Ilea,2018; Hendrixson et al.,2020). Fortunately for the world, industrial advances in agriculture and other fields did not allow fears to become reality.

Theoretically, population growth, demographic transition, and human capital approaches underpin this study. The Malthusian population theory emphasizes the importance of demographic factors in productivity by focusing on population expansion as a crucial demographic element and its relationship with finite food production. In Western Europe, modernization and development of knowledge spurred fertility decrease, laying the groundwork for demographic transition theory by Nafziger (1948). He claimed that the population goes through four distinct stages of demographic transformation. In the first stage, both fertility and death rates are higher. In the second stage, mortality begins to drop, but birth rates remain high. The third stage sees a large drop in fertility accompanied by a slow reduction in mortality. Low birth and mortality rates, as well as an increase in life expectancy, characterize the

final stage. In addition, population dynamics were explained in overlapping generations' models to explain economic growth. Human capital also refers to the information, expertise, and skill that a person acquires via education and training. Human capital theory's social and economic significance is emphasized. Becker (1993) quotes the economist Alfred Marshall's dictum that "the most valuable of all capital is that invested in human beings" (p. 27).

Globally, The European Union states are experiencing minor demographic changes, as evidenced by the fact that people are living longer and national fertility rates are falling (Eurostat,2012). As a result, the population's average age will rise—albeit to varying degrees in different states—while the group of employees aged 55-64 will decline in comparison to those of lower age. In the United States, for example, the population of nonmetropolitan areas peaked in 1940 at 75 million people, accounting for 57 percent of the overall population (Gibson,2010). The majority of people resided in towns and small cities, as well as open countries. Natural growth, a significant migration of rural-to-urban migrants, and new immigrants from abroad have all supported Metropolitan expansion. (Wultnow,2018).

Bristol and Tisdell (2010) posit that globalized businesses are incorporating socioeconomic development policies as Human Resources management strategies. It helps the Human Resources managers of globalized firms the responsibilities to increase productivity, employee engagement, appraisal, value-added provision, and environmental sustainability (Abdelgalil & Cohen,2007). Again, Pacewicz (2012) asserts that the productivity of the employees is also dependent on various factors like management policy, modules, and educational level. In addition, socioeconomic development was criticized by Kramer (2013), because it leads to a pair of low-wage costs with higher productivity similar to value-added ratios such as valuation and motivation. However, the global labor market underlines that to achieve high productivity wages will increase gradually, which is why HR managers are adopting strategies to increase vocational training for new graduates. This policy reduces business capacity and local power which in turn turns the economy into development (Gilmore& Williams,2009).

In Africa, existing scholarly arguments about the influence of population dynamics on development are inconclusive because the findings of some scholars are of contradictory goals (Onwuka,2006; Adewole 2012; Bucci et al.2019). For instance, Nigeria, as espoused by (Adewole,2012), asserts that there is a positive relationship between population and growth on one hand and Onwuka (2006) in her study found a negative relationship between population

and growth. However, another study did Bucci et al., (2019) came out with different results for both developed and developing countries. The determining factor for company performance and the economy in general is human resources. Again, in Uganda Klasen and Lawson (2017) examined the impact of population growth on unemployment and poverty rates and found that population positively affects the overall unemployment rate. Ghana, like most developing nations in the world, has initiated several economic policies in its quest to provide employment opportunities through its human resources to empower economic growth (ISSER,2014)

Population growth due to rural migration also has a leveraging effect in favor of the suburbs with villages left for an aging population and the poor for farming. This has resulted in the growth of slums and congestion in urban areas. The effect of this migration trend adds up to the identified problems of human resources development in the country. More than 56% of doctors and 24% of nurses trained in Ghana are reported to be working in other countries (Clemens and Pettersson, 2006). The resultant skill level of Ghana emigrants is comparatively high. According to estimates, around 34 percent of Ghanaian migrants living in OECD nations had medium skills, while about 28 percent had high skills while Ghanaian emigrants who had no skills were only three percent (EU,2006). Inadequate career growth and poor working circumstances appear to be the primary motivators for highly qualified workers to relocate, particularly in the medical field. For example, a study on the migration intentions of health workers found that the potential for further training was an important factor in their decision to relocate(Agyei and Quartey, 2008).

The population of Ghana has grown from 24 million in 2010 to 30.8 million in 2021. However, the growth rate has decreased to some extent. Despite the decreased growth rate ratio, there is a high dependency ratio, unemployment, and for a middle-income economy like Ghana, this ratio could inhibit saving mobilization and capital accumulation, for socio-economic development (GSS Provisional results,2021). Given Ghana's richness of resources and population size, it is critical to prioritize human resource development to achieve long-term development. Dominant strands of literature focused on population growth and development-establishing relationship, policies, socio-economic development in Africa and Sub-Saharan Africa (Bambang,2007; Amade & Bakari,2015; Kwankye &Cofie,2015; Essien 2016) but little has been done to explore the population's implication for Human resources development in Ghana. In the context of this, this study seeks to investigate the implication of population dynamics for Human Resources Development in Ghana. Specifically, the study seeks to first, explore the relationship between population dynamics on human resources development and second, to ascertain the effect of population dynamics for

Human Resources Development in Ghana. This paper seeks to add to explorative contributions to literature about the consequences of a human population of roughly 30.8 million people, which is expected to double in the next half-century, for human resource development in Ghana

The rest of this study is as follows: Section 2 presents the theoretical and empirical review. Section 3 describes the methodology used, while Section 4 presents the results and discussion, while Section 5 concludes and recommends the study.

## **Literature Review**

### **Theoretical review**

The Malthusian theory is best-known for linking population growth and economic development (Malthus,1798). The famous dichotomous variables of population and agriculture show that agricultural productivity increases arithmetically, while population increases progress geometrically. He suggested that rapid population increase would fail to sustain economic growth, leading to scarcity of resources and unpredictable scenarios. As technical innovation allowed better agricultural production and robust economic growth, a group of demographic optimists arose, arguing that population growth may be an economic gain. Countries with more competence and a larger population, they argue, may make use of economies of scale to benefit from larger domestic markets and labor division with a larger population, boosting economic growth (Harrod 1939; Solow,1956).

Many economic developmental, demographers, and policy analysts are convinced by this simple equation that rapid population growth retrogresses economic development by restricting job markets, scaling up unemployment, and inhibiting labor force mobility across economic sectors (Coale,1986). The Malthusian theory is criticized for its inability to predict the advancement of technology and redistribution of resources to curtail the scarcity of resources. Again, the theory did not comprehensively explain how socio-cultural and geographical factors influence population growth across continents. Therefore, the Demographic Transition Theory comes to augment gaps found in Malthusian theory. Demographic Transition is a period of population growth characterized by high birth and death rates in the traditional, stable population, and into stable modern population are combinations of low fertility and Mortality (Nafziger,1984).

The four stages of the population growth for a given economy under the Demographic Transition Theory are as follows; the early stable, early expanding, late expanding, and late stable stages. First, the early stable stage consists of high birth and death rates with the former relatively stable, and the latter declining in response to different circumstances (Robinson, 1972). There could be a low life expectancy of 30 years as famines and war reduce to limit population growth. Therefore, the population at this stage will be relatively stable. Second, as a result of advances in health, nutrition, sanitation, transportation, communication, production, and commerce in the early expanding stage, the birth rate remains relatively high while death rates fall. Hence it is obvious population will be rapid at this stage. Further, at the late expanding stage, the death rate becomes higher than the birth rate because there could be increased use of contraceptives and birth control measures due to the rising cost of children, changes in value and social structure, high ambitions, education, and economic development. Expansion is stable during this stage despite a population increase. So much so, at the last stage of the transition, to decrease death rate become impossible to achieve, the birth rate approaches equality with its outcome eventually in stationary population. The persistent fall in birth rate at this stage is influenced by low risks or mortality vis-à-vis social safety nets coupled with the aspirations for the comfort of modernity.

Nonetheless, the importance of the theory to the study affirms the classifications of countries base on the stages of development. The first stage description fits the feature of a 'primitive' economy with not enough exposure to science and technology. Therefore, birth rates are restricted by nature, and death rates are controlled by natural and human problems. The features of Western Europe leading to the fourteenth century qualify for this description (Cadwell, 2007). Similarly, it has been also observed that the second stage is in line with the growth and development characteristics of the so-called developing countries (including Ghana). The third stage conforms to the features of middle-income countries as well as the four-stage depicting an experience of most countries whose economies have developed through re-organization (Robinson, 1972). Notwithstanding, this theory is criticized for excluding the intrinsic capacity and abilities of humans to solve problems that population and demographic changes come with hence the adoption of human capability theory will ideally explain the human aspect which is ignored by the two theories discussed.

Human capability theory is a normative paradigm that claims that the level of freedom people has to promote or fulfill functions they value should be the primary criterion for evaluating social arrangements (Sen, 1999). The

theory is built on two main claims; first, there is the freedom to achieve well-being, which is of essential moral importance, and second, comprehending individuals' freedoms to achieve well-being in terms of their capacities (real opportunities to do and be what they have reasons to value).

It emphasizes the significance of increasing individuals' substantive liberties (actual opportunities) to achieve valuable states of being and doing, with a focus on the quality of life that individuals can achieve. It means that people have access to the resources they need to develop these skills and make decisions that are important to them. According to Sen (1999), being well-nourished, being free of preventable diseases, being joyful, having self-respect, and being able to participate in community life are all examples of functioning. Capabilities, on the other hand, are the many combinations of functions that can be accomplished (Sen, 1987). Individuals with such capabilities have the freedom to perform valuable duties as active agents in the fight against unemployment, poverty, and the use of population increase to guide the country's socio-economic progress.

### **Factors for Population dynamics in Ghana**

The determinants of population dynamics in any country are mortality rate, birth rate, and migration. These variables are triggered by numerous factors such as awareness, success of family planning, contraception method, socioeconomic factors, cultural norms, and attitudes. These variables are forces of their own in driving economic growth, which sometimes promotes growth and other times impede economic development. In contrast to fertility, evidence suggests that Ghana's death rate has been progressively falling over time. Advances in modern health care aimed at improving health facilities and services, as well as family health education initiatives, have helped children live to maturity. Meanwhile according to Dyson (2013) claimed that as a result of the decrease in mortality, economic growth is aided, and the standard of living rises. This signifies that a population reduction may affect growth. Since population growth provides a pool of labor to be exploited in the production process, which has the potential to stimulate economic growth, it also creates significant problems that can hinder the country's efforts to achieve the desired economic growth and development.

Another examined factor of population growth in Ghana is the fertility rate. Current projections of fertility gathered from censuses and surveys show that fertility in Ghana has maintained at a very high level for a relatively long time. In Ghana, the average number of children a woman will have during her reproductive life is quite high

when compared to certain developed countries. For example, in 2000, it was predicted to be 4.6, but by 2004, it had fallen to 4.2 (World Bank,2012). Rapid population expansion has an unmistakable impact on the economy in a variety of ways. With a recent fertility rate of 4, the labor force is expected to reach 21.8 million by 2020 (Horton,1994). Furthermore, migration research shows that the emigration of labor, specifically skilled and unskilled or semi-skilled workers, occurred during the economic crisis in the middle of the 1960s as a result of a significant population increase. For obvious developmental reasons, the study of international migration also focuses on the emigration of eligible individuals in the health and education sectors (Kabki,2007). The warning that an unrestrained increase in the country's population could stymie its growth was not taken seriously or urgently enough. There was a considerable influx of foreign nationals, particularly from African countries. The 1960 population census verified this, with foreigners accounting for 12.3 percent of the population (Boadu, 1994).

### **Population dynamics and its effects on Human Resources Development**

Bucci et al. (2019) empirically and theoretically examined the “dilution effect” of population expansion on per capita human capital formation. The dilutive effect (related to the average schooling at the individual level and the average human capital at the aggregate level) focused on the addition of newborns without education, which had an impact on the levels of physical capital per capita both long-term and long-term. short term. Bucci et al. (2019) demonstrated that the dilution effect was heterogeneous and unique to each country. The regression analysis revealed that countries with high dilution effects had a negative relationship between population growth and economic growth, whereas countries with low dilution effects had an "ambiguous" relationship (i.e., negative, neutral, or positive) between population growth and economic growth. Furuoka (2016), together with a comparable research idea, examined the benefits of high population growth in the Indian economy. Using ARDL, the study uncovered a long-term negative relationship between population growth and economic growth, and it was suggested that continued population growth could harm the Indian economy.

When assessing the expansion of local employment using the example of West Germany (1977-2009), Suedekum, Blien and Wolf (2012) retained the effects of human capital and population growth as independent components and proposed reasons why countries with talented populations grow faster than countries with the least skilled population. A significant proportion of the highly skilled workforce has been lost, leading to a decline in the number of jobs required by skilled workers. An increase in human capital and population growth has a positive impact

on overall job growth, and low-skill jobs are more likely to increase than high-skill jobs. The study concluded that there is a considerable relationship between human capital, population increase, and employment growth. Dyson (2010), on the other hand, stated that a decrease in mortality boosts economic growth and, as a result, raises the standard of life. If individuals can live longer lives, they will be able to think more about the future and will be more willing to take risks and develop.

Klasen and Lawson (2007) examined the effects of population growth on unemployment and poverty. Cross-sectional and panel data were used in the study. The results showed that population growth had a positive effect on the overall unemployment rate. However, the figure is usually below one, suggesting that the number of people joining has a negligible proportional impact on unemployment. However, from 1997 to 2008, Rutger and Jeroen (2011) examined the influence of population dynamics (age structure) on economic growth in developing countries. The wealth index (used as a proxy for district GDP), GDP growth by capital, growth rate of labor force share, urbanization rate, landlocked land, life expectancy and openness to trade are the variables included in the model. The study's findings revealed a strong positive effect of the working-age population on GDP growth rates. As a result, the researchers proposed that the government create a favorable investment climate in order to give more jobs to absorb the expanding youth population. In addition, Kotani and Kotani (2012) used ordinary least squares (OLS) regression techniques on annual time series data collected for variables included in the model, such as GDP, population growth, lagged fertility, and net migration. To understand the impact of net migration in relation to population and migration Economic growth in Indonesia between 1993 and 2005. In a two-variable regression, the study found that lagged fertility had no effect on economic growth; however, when net migration is included as a variable in the model, the study finds a substantial negative link between population increase and economic growth. Consequently, the researcher came to the conclusion that net migration is an important predictor of economic growth.

Bucci (2003) studied whether a long-run link exists between population (number and growth) and per-capita income, concentrating on human and physical capital as replicable inputs. The study found that population expansion is negatively affecting economic growth. However, when individuals decide how much they want to save endogenously, population growth can have a neutral impact on economic growth. The study also expanded its analysis to include the case where physical and human capital work together to produce new human capital. When two types of capital in education replace each other, the effect of population growth on per capita income growth is always

negative. Instead, when human capital and physical capital are mutually beneficial, the impact of population change on real per capita income growth becomes ambiguous. His intuition is this: an increase in population leads to an increase in the aggregate physical capital stock for a given per capita physical capital stock. If physical and human capital are substitutes (in the sense that the greater amount of physical capital now available in the economy deters demand and, thus, supply of human capital), population growth combined with a reduction in the aggregate human capital stock determines an unmistakable decline in per-capita skill levels and, via this channel, a lower per-capita income growth rate. If, on the other hand, physical and human capital are complementary (i.e., an increase in the supply of physical capital stimulates demand and, as a result, the production of new human capital), an increase in population's final effect on per-capita skill levels and, thus, per-capita income growth can be positive, negative, or zero. In equilibrium, both the growth rate and the level of per-capita income are independent of population size; the long-run level of per-capita income is proportional to per-capita human capital (ibid). All these results further complement those of Klasen and Lawson (2007) and Rutger and Jeroen (2011).

The empirical studies discussed above does not focus on the qualitative aspect of population dynamics for human resources development. Moreover, most of the studies establish relationships and effects narrowly on population growth and economic development rather than the development of human resources. However, this empirical review will guide the study to explain the objectives outlined respectively. Therefore, this study will focus on the qualitative aspect through document reviews

## **Methodology**

The study employed a descriptive research design since it does examine a particular situation, thus, the population dynamics of two relationships as they were. The pragmatic philosophy in situating eclectic meanings to realities was preferred for the study. This is because it provides constructive meaning to the ideas and numeric information that come from different perspectives in a study. Again, it allowed for the understanding of the complexities associated with the research problem since most of the research is skewed to the quantitative side with little on the qualitative. Therefore, the pragmatic philosophy reinforces the gaps in both quantitative and qualitative research, thus, putting the practice of observable facts and experiences into action. A document analysis was used to analyze the objectives of this study. Document analysis gives the researcher the voice and meaning of the assessment of a research problem

(Cardno,2018). Document analysis was employed because it is time-efficient and cost-effective as well as points to questions that need to be observed for easy critical evaluation and comprehensibility (Cardno,2018).

Secondary data was mostly gathered through the examination of numerous papers pertinent to the study. This required scouring the internet for pertinent resources, reviewing records and documents, and generally going through literature for relevant things to serve as the background for the discussions. It also includes institutional reports, records, and articles from Ministries in Ghana, Ghana Statistical Service, Ghana Demographic and Health Surveys 2014 and 2017 as well as Census report of Ghana,2010 provided baseline information for the study. Again, a desk review approach was used base on the narrative literature review of available studies publicly on population dynamics and human resources development.

## **Results and Discussions**

### **Implications of population dynamics for Human Resources development**

The persistent high population growth in Ghana has been eroding a part of any development gains that have been made. A reduction in the fertility rate and decline of the population growth rate can serve as a catalyst for economic development, most essentially it helps utilize resources to develop the human and physical capital in the country. Beyond just numbers, rapid population growth has an impact on human well-being and development. High population growth usually has negative consequences for people's quality of life, health, education, income, and access to essential amenities like transportation, housing, sanitation, and security. Human growth and well-being, on the other hand, are not restricted to these factors; they also include people's self-respect, dignity, and freedom of choice. United Nations (2015) asserts that “Continued population increase fueled by rapid population expansion has repercussions for practically every element of a nation's life”.

### **Employment**

High population growth poses consequences for the provision of productive employment. Ghana's high population along the young age structure, scale up the supply of the labor force. With 55 percent of Ghana's population being below the age of 30 shows that there is a youth bulge in the country (GSS,2014). Ideally the rate of job creation should match the rate of supply of the labor force. Currently around 5.9 million (15 percent) of young people aged 15-24 are unemployed in 2020 (GSS,2013). Although the proportions of dependents have stalled due to the decline fertility rates in Ghana, the labor force remains large due to earlier high fertility rates. This reduction in dependency

ratio provides the golden opportunity to recoup the benefit of demographic dividend. However, this cannot be done without enough and timely actions taken to productively engage the young labor force. Majority of this young population, however, is uneducated or poorly educated and also does not possess the skill-set which could enable them to be productive. Increase In labor force but poor job prospects hold back technological advances and industrialization due to abject poverty, which in turn reduces the demand for manufactured goods.

People are forced to work in unproductive sectors or to take up traditional jobs-mainly agriculture, with its low productivity and poor wages. Low saving rates and low labor skills become the end results, both of which limit the full development and utilization of human and physical resources. There is a growing realization recently to engage young people in meaningful activities and respond to the high youth unemployment. However, resources are scarce as well as the challenges being multi-faceted. Importantly, the most pressing challenges among the lot are: the transition from school to the labor market is not easy; the youth unemployment rate is higher than the adult unemployment rate; many young people work in the informal sector as unpaid family helpers, alone or as casual workers; and, young women are in a worse position than their male counterparts on various job dimensions (Stein et al.,2014). While many issues in this area apply to adults as well, some challenges are specific to youth, such as inadequate performance when entering the job market for more educated youth. When this happens, the benefits of the demographic dividend are more likely to affect human resources in their education and training opportunities to minimize unemployment rates in the country. The discussion contradicts the findings of Rutger and Jeroen (2011) which revealed a strong positive effect of the working-age population on economic growth.

## **Education**

Education occupies a highly important place in most socio-economic development. Sufficient investment in human capital is critical to the productive capacity of an economy and the ability to provide a higher standard of living for its growing population. However, rapid growth of the school-age population has contributed to the decline in Ghana's per-pupil expenditure. Population growth has led to the reduction in the quality of education. In addition, continued rate of population growth poses challenges on educational facilities, then greater numbers may not be beneficiary of formal education in the country. For the obvious fact when large number of people do not get formal education due to the rate of growth, the development of the human resources to drive socio-economic development become an unattainable target in the country.

Moreover, no planning program can work in isolation to address the challenges of population growth. Other systems and sectors need to be in place to achieve the target of reducing the population growth rate. Girl's education for example requires immediate attention in the country where literacy rates are not encouraging (74.5 percent) as compared to the developed countries (UNESCO, 2018). Statistics on education in rural areas are even worse. The poor state of education, let alone women's education, is evident from the fact that government is spending only 3.989 percent of the GDP on educations (World Bank, 2020). Education and fertility are positively correlated. Education provides women tools to make informed choices which could change their fertility desire (Delbaere, Verbiest, & Tydén, 2020). Educated women are more likely to imbibe ideals of a smaller family. Research has shown that educated women are more responsive to family planning services as they have smaller family desires and incur more opportunity cost of having large families (Marsden, 2019). Again, studies have found that women with a primary and secondary level education are more likely to use contraceptive as opposed to illiterate women. Therefore, there is a tendency of the illiterate women in the rural and some urban areas to be procreating without measures which will cause high dependency ratio, decrease saving, and investment on the domestic households. This, then, leads to the decrease in human resources development vis-à-vis their education, health and improvement in their standard of living.

## **Migration**

Migration is a response of the population to the changing social and economic conditions of the country. As these conditions changed, the nature of the migrants and the reason for their migration also changed. The motivation to migrate lies in the demographic dynamics of the country as a determinant of migration. The rapid rate of population expansion in Ghana over the past three decades has typically increased the supply of indigenous labor and, in areas such as the Upper East region, has put pressure on the use of available land, fostering the migration (GSS, 2010). The gradual decline in the country's total fertility rate has led to an increase in the number of young adults willing to work. As more of these young people are educated, they become outsiders in rural communities and naturally migrate to urban areas to earn a living.

Urban nuclei or metropolitan areas have become targets of the main structural flows of population in the country. In this way, urbanization becomes part of the response to social change; a response that is an essential aspect of current socio-economic and political developments in Ghana (GSS, 2014). Ghana has one of the fastest urban

growth rates in the world. In 1960 about a quarter (23%) of the population lived in urban areas. Four out of ten Ghanaians (8 million) lived in cities in 2000, 12.5 million in 2010, and an estimated 14.1, 19.3, and 26.7 million in 2015, 2030, and 2050, respectively (GSS,2014). Greater Accra and Greater Kumasi have more people moving because of the distance between cities, where people often move for economic reasons, mainly for education, training and job opportunities.

Most of the population are groups are the youth. Population growth as a result of migration forces the youth to move to seek for greener pastures and qualitative improvement of the standard of living hence they move the greatest distances and already existing pre-determined patterns. Nonetheless, population growth leads to immigration of skilled human resources in the country. The brain drain is also known as the human capital drain. It is the migration of people, especially the most educated and competent people or workers, from less developed countries like Ghana to rich countries where they believe that the profitability of their human capital is valued. The effects of the emigration of skilled workers include, among others, the deterioration of the quality of the service due to the shortage of qualified workers in their countries of origin, to the economic advantages of the transfers.

A devastating effect of the skilled brain drain is a shortage of skilled workers in critical sectors such as education, healthcare, science, technology, and business. The lack of a competent person has direct and negative effects on the quality-of-service provision to the public in the countries of origin. (Adepoju,2008). In Ghana especially the healthcare sector has had the most disturbing effects of brain drain such as Nurses, Doctors, and Physicians has led to inadequate service delivery.

### **Conclusions and Policy Implications**

The study explored the implications of population dynamics for Human Resources Development in Ghana using document analysis, and secondary data. The implications of these demographic realities are numerous and pervasive. The obvious related dimensions of the age structure for example, are the labor force potential, consumption needs, high dependency ratios, migration, and social and economic requirements for the current and future generations. It is imperative to highlight the fact that population is the only substantive factor that relate with other variables in development model. Human Resources Development on the other hand, imbibe the characteristics of these demographic changes to ascertain the course of action be it education, training in skill acquisition and career

development of an individual. The findings show that population growth has bi-directional effects for Human resources development. This means that population dynamics drivers such as high fertility rates, increased migration (Internal or International) and decline in mortality rate due to advances in technologies lead to reduction in quality of education pressure on existing infrastructure, high rate of unemployment among the youth as well as the loss of skilled professionals (Teachers, Nurses, Doctors etc.) to developed countries due to Brain Drain amongst other decrease development of capacity and capability of the Human resources in Ghana.

The study recommends policy maker should pay more attention to improving the human resources development through education, provision of quality healthcare, and satisfying the basic needs of the human resources base. This would in the medium to long-term, limit the population growth rate of the country, and instead, translate the demographic dividend (human resources) into a potential panacea for socio-economic development.

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