



---

**No. 7**

APRIL 2017

---

**Living standards in  
pre-independent Ghana:  
evidence from household budgets**

by

ERIC GAISIE

**HISTORICAL HOUSEHOLD BUDGETS**  
**WORKING PAPER SERIES**

HHB working papers are circulated for discussion purposes. They have not been peer-reviewed by external referees or been subject to the review by the HHB Advisory Board.

You can copy, download or print HHB content for your own use, and you may include excerpts from HHB publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of HHB as source and copyright owner is given. All requests for commercial use and translation rights should be submitted to [info@hhbproject.com](mailto:info@hhbproject.com).

Comments are welcome and may be sent to [info@hhbproject.com](mailto:info@hhbproject.com).

---

*Please cite this paper as:*

Gaisie, E. (2017), 'Living standards in pre-independent Ghana: evidence from household budgets', *HHB Working Paper Series*, No. 7, April 2017, Rome.

---

HHB Project  
Via Columbia, 2  
00133 Rome  
Italy  
<http://hhbproject.com/>

© 2017 Historical Household Budgets

All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit is given to the source.

# Living standards in pre-independent Ghana: evidence from household budgets<sup>1</sup>

Eric Gaisie

Faculty of Architecture, Building and Planning, The University of Melbourne, Australia

[egaisie@student.unimelb.edu.au](mailto:egaisie@student.unimelb.edu.au)

April 2017

## Abstract

Poor living standards among indigenous residents have been cited as one of the main factors that motivated Africans to forcefully push for political independence from colonial rule during the first half of the twentieth century. Unfortunately, there has been limited evidence to back this assertion especially with personal welfare with reference often made to national level indicators. This article dwells on household budgets to provide empirical information about the living conditions of indigenous residents in Ghana prior to independence. In addition to a thorough analysis of the socio-economic conditions prevailing at the time, poverty measurements are made to estimate the incidence, depth and severity of poverty in the country in the 1950s.

**Keywords:** household budgets, Accra, Ghana, independence, poverty, living standards, poverty line

**JEL Classification:** I32, N37, D31

---

<sup>1</sup> This research was initiated during the author's studies at the Faculty of Economics, University of Rome, 'Tor Vergata', Italy. The author is grateful to the Erasmus Mundus Programme for sponsorship during his studies. The author also thanks Prof. Giovanni Vecchi, Giulia Mancini and the team at the Historical Household Budget (HHB) Project Office for their very useful comments and suggestions. The efforts of Lucia Owusu-Amponsah and Dennis Kwadwo Okyere in reviewing the manuscript are also appreciated.

## **1 Introduction**

Throughout humanity, wellbeing has been a critical factor underpinning a lot of political decisions at family, community, national and global levels. This was no exception in the twentieth century colonies during the political struggle for independence (Howard, 1999) as was the case in Ghana. It has been argued that the development of agricultural export economy in the late eighteenth and early nineteenth century resulted in the general improvement in living standards in Gold Coast (Ghana's original name) (Austin, Baten & Moradi, 2007), but others also contend that this improvement was largely unequal with indigenous people having poorer living conditions. For instance, Acquah (1958), Kironde (2007) and Smiley (2009) note the segregation of the urban landscape such that indigenous residents in urban African cities were made to live in areas that were deemed unhealthy for the white people. Howard (1999) also recalls the neglect of indigenous World War II veterans relative to the European counterparts as well as low paying jobs of the few educated indigenes.

Clearly, as many recent studies have shown, overall economic outlook indicators such as national output and income per capita are not good measures of living standards since they blur the inherent distributional problems (Milanovic, 2002). In this regard, it is prudent to understand the distribution of wellbeing to ascertain the extent and differences in living standards.

Though the interest of economic historians to unearth standards of living dating back in time has increased in the past few years, the unavailability of quality data that match those obtained through modern surveys remains the greatest challenge. As a result economists have devised innovative strategies using many different indicators for welfare measurement. While anthropometric data (mainly heights and its relation with nutrition) have been the most widely used proxy (e.g. Engerman, 1997; Austin et al, 2007; Steckel, 2008; Cogneau & Rouanet, 2009; Moradi, Austin & Baten, 2013; among others), others have used night-time light as welfare measure instead (e.g. Ghosh et al, 2013; Mveyange, 2015; Anthony, 2015). Whereas the former can derive welfare measures at micro levels, the latter is only useful for aggregate

level studies. Inarguably, the best data type for examining personal income or welfare distribution is through the use of household budgets. Unfortunately, such data appear to be only well derived recently, especially in developing countries following the introduction of the World Bank's Living Standards and Measurement Surveys (LSMS). Milanovic (2002) used such household survey data from 99 countries for his ground breaking study which examines the distribution of personal income globally.

Armed with mountains of historical household budgets, A'Hearn, Amendola and Vecchi (2016) elucidate their potentials for explaining living standards over time. They observe that even though some of these budgets may not have been gathered through a well-planned randomly sampled study, methods like post-stratification abound to correct the errors. Recent progress in economics and statistical research has also ensured that within the limitations of access to unit level information, grouped data and summary statistics have become useful for distributional studies.

Measurement of personal welfare in Ghana also seriously began in 1987 as part of the World Bank's LSMS programme. The Ghana Statistical Service (GSS) has since published reports on six waves of household surveys based on micro-data. This paper, however, uses household budgets data in the early 1950s to reconstruct living standards in Ghana's capital, Accra. In addition to the assessment of the general socio-economic conditions at the time, a poverty line is constructed to estimate the prevalence, depth and severity of poverty among indigenous workers at the time. With the aid of the World Bank's POVCAL software, grouped data is modelled by fitting Lorenz curves to assist the measurement and analysis of poverty.

The article is structured under five sections. Subsequent to the foregoing, section 2 briefly discusses the economic situation of the country as well as a review of household budgets surveys in the 1950s, identifying the institutional and other design factors that can affect the validity of living standards studies. It further outlines the methodological issues relating to the budgets used in this paper. The third section analyses the conditions of lives of residents at the time of the survey, covering general socio-economic characteristics, housing conditions as well as income and consumption patterns. Section 4 examines the level and nature of poverty based on the Forster-Greer-Thorbecke (FGT) indices, while section 5 concludes the study.

## **2 Welfare and household budgets in Ghana**

### **2.1 Understanding historical personal welfare in Ghana: which methods were used?**

The economic history of Ghana has been very well documented over the years. Serving as a major hub for the slave trade in Africa, the standard of living was very poor until attaining the prestigious feat as the world's largest producer of cocoa in 1910-11. This development was even more accelerated by the subsequent increase in transportation investments, commercial farm production and the operationalization of European mines in the forest zone of the country (Austin et al, 2007). The Gold Coast, apart from its political dominance was seen as a major economic powerhouse among the British colonies, once being the second largest contributor to the dollar pool only after *Malaya* (International Bank for Reconstruction and Development [IBRD], 1953). In the first half of the twentieth century, the country ranked among the most advanced economies in the sub-Saharan Africa, with output per capita only behind that of South Africa (Poleman, 1961). Whereas macroeconomic statistics supported this stance, the effects on living standards of the average indigenous African remained contentious. Being extremely dependent on the export of cocoa for foreign exchange (which affected food production levels), the high increases of cocoa prices between 1948 and 1951 led to hikes in food prices and deteriorating costs of living (Poleman, 1961).

Even though it has long been a political subject, historical study of living conditions in Africa is generally limited. While poverty has long been associated with Africans, earlier studies could not determine absolute lines for measuring poverty. A comprehensive study by Iliffe (1987, p.2) on the poor in Africa (with some descriptions on Ghana) rather used the manifestation of poverty depicting a certain level of 'physical want'.

Contemporary scholars, however, have attempted understanding the historical trends in living standards. For instance, Cogneau and Rouanet (2009) used data on heights obtained from household studies as proxy for welfare in Ghana and Cote d'Ivoire. Dwelling on the correlation between heights development and improvements in childhood living conditions, particularly related to the quantity and quality of nutrition, they guesstimated the standards of living in West Africa, in general and the two countries in particular between 1925 and 1985.

Austin et al (2007) also studied the average living standards over a longer time span, i.e. 1880-2000, using anthropometric data (mainly heights as well) of recruits in the Ghanaian army. In addition, Moradi et al (2013), also using data on heights show a relatively higher average well-being in cocoa producing regions. Even though this approach has been widely used in many welfare studies in many different countries, it is not without some weaknesses. Since height data for welfare studies are mostly derived from military records, some cohorts of the population whose heights and/or other health conditions excludes them from recruitment are not considered and hence may not derive a representative measure (Engerman, 1997). Deaton (2007) also notes that given the known average income of countries around the world, Africans are generally taller although income levels (and even nutritional contents in countries like Chad) are lower. Even at the local level, the same study by Austin et al (2007) found that although the northern territories of Ghana were evidently poorer, the nutritional content of their staple foods as well as other genetic factors made them relatively taller than their compatriots in the south.

One of the surest ways to understanding living standards lately focuses on the allocation of household resources as contained in their budgets (Vecchi, 2017). Since the late 1980s, the GSS periodically design multi-topic household surveys with technical support from the World Bank through its LSMS programme, with a key component capturing budget data. While this has certainly led to improvements in the survey methodology and quality of data, it is not the first of household budget studies by the statistical office in Ghana. With the aim of assessing the general economic life of the Gold Coast colony, the Office of the Government Statistician (established in 1948) undertook a series of household budget surveys from 1952. The subsequent section describes some of such surveys.

## **2.2 Household budgets in the 1950s**

Even though data gathering by the colonial administration on economic circumstances of the Gold Coast colony was done through the best part of the colonial era, it was not until the last days that it commenced planned surveys on household budgets. Even with that, the underlying political interests ensured that these studies did not have a national scope but rather concentrated on areas with high strategic political and economic relevance to the

administration (Serra, 2014). As a result many of the surveys undertaken prior to independence (in 1957) focused on urban areas with the only rural surveys strategically done in cocoa producing regions and major food production sources. Table 1 enumerates seven key household budget surveys undertaken during the period and their main objectives. Whereas the urban-based surveys were done to examine the expenditure patterns of households for revising retail price indices, the rural surveys were either done because of the areas connectedness and relevance to food supply to the cities or the significance in cocoa production. In effect, the bias of these studies towards urban centres was consistent with the colonial policies that directed most infrastructure development projects towards them (Adarkwa, 2012). This is not surprising considering that the cities had become the centres of consistent agitations and protests for the independence struggle.

**Table 1. Household budgets surveys in Ghana in the 1950s**

<b>Survey</b>	<b>Purpose</b>	<b>Urban/rural</b>
Agricultural Statistical Survey of South-East Akim Abuakwa, 1952–1953	Obtain income and expenditure data, farm production and food exports to cities.	rural
1953 Accra Survey of Household Budgets	Revise retail price indices	urban
1954 Akuse Survey of Household Budgets	As part of the Volta River hydroelectric project inquiry	urban
Sekondi-Takoradi Survey of Population and Household Budgets, 1955	Provide information on expenditure patterns for retail price indices	urban
Kumasi Survey of Population and Household Budgets, 1955	Provide information on expenditure patterns for retail price indices	urban
Survey of Population and Household Budgets of Cocoa Producing Families in the Oda-Swedru-Asamankese Area, 1955–1956	Examine household expenditure patterns as well as capture farm records	rural
Survey of Cocoa Producing Families in Ashanti, 1956–1957	Examine household expenditure patterns and capture farm records	rural

**Source:** Compiled from *Office of the Government Statistician (1953)*, *Economic Commission for Africa (ECA) (1959)*, Serra (2014)

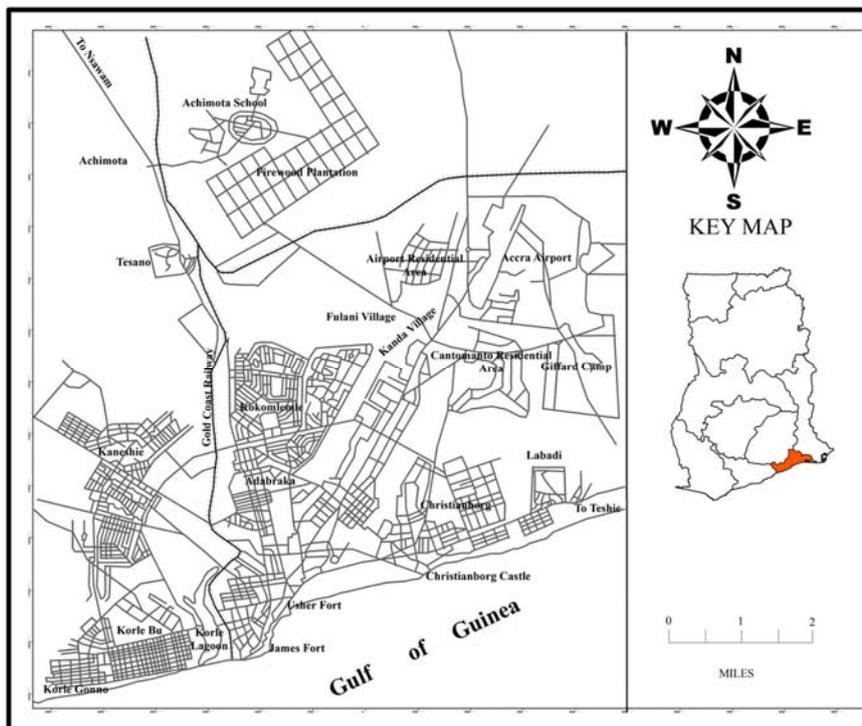
Acknowledging the forgoing as the motives for undertaking household budget surveys, their institutional construction assumed that price fluctuations would generally affect the standards of living of waged workers with that of traders and other self-employed workers changing in the direction of the price changes (Office of the Government Statistician, 1953). Initial urban surveys were as a result, designed to capture the changes in consumer price indices as well as capture the variations in expenditure of wage earning households. But following preliminary surveys designed to capture the basic socio-economic characteristics of residents, the lower proportion of household heads engagement in waged employment ensured that subsequent studies in Kumasi captured budgets of all forms of indigenous households (Serra, 2014). Nonetheless, the availability of government institutional, commercial and factory employments in Accra and Sekondi-Takoradi ensured that majority of the households had wage earning heads.

In order to enable thorough analyses of conditions and budgets, this study is limited to the household budgets survey conducted in Accra. This approach lends itself to some advantages as follows. First, given that the available household budgets surveys were not designed as one broad national study, the differences in methodology would require major statistical transformation to make them comparable. Although current statistical tools allow for some transformation (A'Hearn et al., 2016), the focus on only wage-earners in some surveys renders them difficult to compare with the others which covered non-wage earners as well. It also saves the complexities of adjusting for time differences which span years between surveys. Second, owing to the age of these surveys and their non-existence in digital forms, issues with assembling the reports which are scattered in libraries across continents are overcome considering time and resource constraints. That notwithstanding the political and economic dominance of Accra over the years makes it a good case to focus on. The succeeding section describes the methodology used in gathering household budget data in Accra.

### 2.3 The Accra household budgets

Earlier described by the governor of the Gold Coast as the most ‘disorderly and uncivilized’ part of the country, boundaries were demarcated for the Accra Municipality in 1896 to pave way for formal administration after the passing of the Town Council Ordinance (Acquah, 1958; p.21). Subsequently as the administrative centre of the colony, it saw some expansion to engulf other suburbs and new neighbourhoods created (see Figure 1). It is unsurprising that it since remained a hotbed for political, economic and administrative activities of the country. Moreover, being the nation’s capital since 1877 and largest city for almost a century prior to the survey, it is not far-fetched as to why it was selected as one of the few areas for investigations into the general conditions of lives of the people. Today, the city has emerged as a modern metropolis, gaining international recognition and presently a major transportation and business hub in West Africa.

**Figure 1: Map of Accra in 1954**



Source: Adapted from Acquah (1958)

The Accra Survey of Household Budgets of 1953 conducted by the Gold Coast Office of the Government Statistician was purposed to revise prevailing retail price indices at the time. This was probably in response to the persistent agitations preceding it. It was designed to capture information on incomes and expenditure incurred by households in the city. Under the assumption that price changes adversely affected waged families whereas incomes of traders and other informal workers ‘moved with prices’, the main focus of the study was directed at households headed by wage earners (Office of the Government Statistician, 1953; p.2). However, in order to enable a generalization of findings for the entire city, a representative two stage sampling approach was adopted. In a preliminary survey, a stratified sampling ensured that data was collected in all seven wards/zones of the city in which about 25% of households were covered, that is, every fourth address included (see Appendix 1). From this category of respondent households, it emerged that about 48% of them had wage-earning heads out of which a sub-sample was selected for the detailed budget study in the second stage. The selection criteria employed subsequently involved the following.

**Table 2. Selection of respondent households for detailed budget record**

Description	Ward						Total
	A	B	C	D&E	F	G	
Total number of households in preliminary sample	736	498	689	1,977	625	373	4,898
Number of households with wage-earning heads	473	212	431	706	342	168	2332
<i>Representing (% of all households)</i>	<i>64.3</i>	<i>42.6</i>	<i>62.6</i>	<i>35.7</i>	<i>54.7</i>	<i>45.0</i>	<i>47.6</i>
Total Number of households eliminated ( <i>after applying exclusion criteria</i> )	535	393	528	1,678	466	286	3,886
Households available for detailed budget record	201	105	161	299	159	87	1,012
<i>Representing (% of all households)</i>	<i>27.3</i>	<i>21.1</i>	<i>23.4</i>	<i>15.1</i>	<i>25.4</i>	<i>23.3</i>	<i>20.7</i>
<i>Representing (% of all households headed by wage earners)</i>	<i>42.5</i>	<i>49.5</i>	<i>37.4</i>	<i>42.4</i>	<i>46.5</i>	<i>51.8</i>	<i>43.4</i>
No. of households selected for detailed study	95	55	75	150	75	50	500
<i>Representing (% of suitable households available)</i>	<i>47.3</i>	<i>52.4</i>	<i>46.6</i>	<i>50.2</i>	<i>47.2</i>	<i>57.5</i>	<i>49.4</i>

**Source:** Extracted from *Office of the Government Statistician, (1953).*

In order to minimize distortions, extremely low and, mostly high earning households were omitted with the focus dwelling on those who earned £50 – 180 per annum constituting 70% of all households with wage-earning heads. Single member households, households with more than eight members as well as non-African households were also discarded. This led to 1,012 eligible households representing 21% of all households and 43% of those with wage-earning head. 500 of these households were randomly drawn for the detailed study out of which only 453 budgets came out as suitable for further analysis and reporting. Essentially, the study captured detailed budget of African (mostly indigenous) households with wage earning heads and a stable annual income of £50-180 excluding single member households and those with more than eight members. This turned out to be households with low to middle incomes. However in order to ensure representation, these respondents were evenly distributed to capture all parts of the city of Accra. The various stages of sampling procedures together with the corresponding eligible units are summarized in Table 2.

From the foregoing, the categories of data gathered in the two stages allow for different levels of analyses centred on living standards. Therefore, this is the posture adopted for the remainder of the present paper. It is worth mentioning at this stage some scholarly works to which this budget have been used. While Serra (2014) describes the political economy under which this budget survey, and others were designed and executed, Poleman (1961) stresses on the typologies, nutritional content and economies of the foods consumed by households. In addition to analysing the general conditions as captured in the survey, this paper constructs welfare aggregates with which the nature and levels of poverty are examined.

### **3 Analysis of findings**

#### **3.1 Socio-economic characteristics**

This section analyses the socio-economic features of the residents of Accra at the time of the survey. Under this circumstance, the data gathered in the preliminary study is relevant for the discussions. While this captured a quarter of all residents in the city, the systematic selection of respondents mimicking random sampling offers grounds for which the data could portray the general conditions in the entire city. The analyses, therefore, focus on the household characteristics including sex and age composition, ethnic affiliations, income sources, occupation, housing conditions among others.

##### **3.1.1 Household structure, composition and characteristics**

Given that the study set out to gather detailed budgets of households with wage earning heads, it was imperative from the onset, to identify the number of such households vis-a-vis those with non-wage earning heads. The preliminary survey that sought to gather this information revealed that about 48% of all households in the city were headed by wage earners compared to more than half whose income came from trading and other unstable sources (see Table 3). This is not to suggest that the latter did not have wage components in their overall household incomes but rather the wage (which constituted 16% of their income sources) did not come from their household heads. Even though the study did not provide an operational definition for *household head*, it is not unusual to attempt at doing so. As has been used by the GSS (2013), the head of the household is the one recognized as such by other members and generally has the economic and social responsibility for the household.

**Table 3. Classification of households by main income source of the heads**

<b>Category</b>	<b>Number</b>	<b>Percentage (%)</b>
Wage earning heads	2332	47.6
Non-wage earning heads	2566	52.4
<i>Total</i>	<i>4898</i>	<i>100.0</i>

*Source: Office of the Government Statistician (1953)*

The 4,898 households surveyed at this stage were made up of 29,143 people with an average household size of 5.95. Interestingly, households headed by non-wage earners were larger (6.82 persons) than those of wage earners (4.99 persons). Table 4 shows a similar trend when distributed by sex and age with more persons per households among those headed by non-wage earners than wage earners under each category. Moreover, the population of the city as of 1953 exhibited a very youthful structure with almost half of them being 18 years or younger.

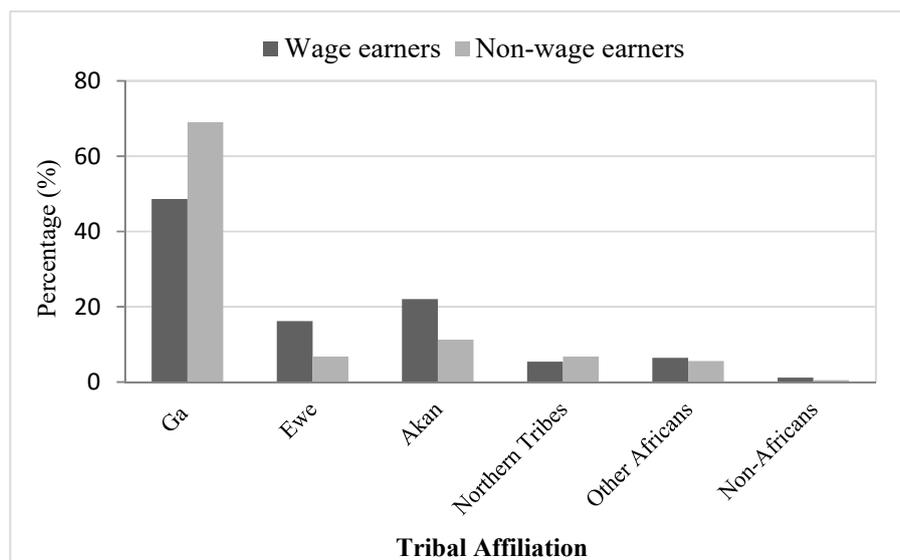
**Table 4. Number of persons per households by age, sex and household type**

<b>Age &amp; sex composition</b>	<b>Proportion of total population</b>	<b>Number of persons per household</b>		
		with wage earning heads	with non-wage earning heads	all households
Children (0-5 years)	19.5	0.94	1.36	1.16
Children (6-18 years)	29.9	1.48	2.05	1.78
Male adults (19+ years)	23.7	1.33	1.48	1.41
Female adults (19+ years)	26.9	1.24	1.93	1.60
<i>Total</i>	<i>100.0</i>	<i>4.99</i>	<i>6.82</i>	<i>5.95</i>

*Source: Compiled from Office of the Government Statistician (1953)*

Information about ethnic affiliation was also gathered during the first part of the study. The Gas, the main indigenous people who first settled in the town of Accra, constituted about 60% of the residents. However, as shown by Figure 2, only about half of the wage earning heads were Gas compared to almost 70% of non-wage earning heads. The Akans, Ewes, other Africans and non-Africans constituted higher proportion among the wage earning household heads than the non-wage earning counterparts. This may not be surprising as these people may have migrated to the city in search of more stable jobs in the public service and commercial sectors available those days. Data on occupation type also shows that the wage earners are distributed among clerical/commercial work (47.5%), artisans (25.7%), public/technical/military services (14.5%) and labourers (12.3%). On all occasions but for public/technical/military, more people were employed by the non-governmental sector than the government showing the dominance of the private sector in formal employments at the time. Whereas a lot of the non-wage earners were employed as commercial and artisanal workers, others were also engaged in farming/fishing (5.8%), transport and other related occupations (3.3%) or were unemployed (13.4%). Interestingly, however, about 9 out of every 10 of the unemployed were Gas.

**Figure 2. Tribal affiliation of household heads by income source**



Source: Office of the Government Statistician (1953)

With regard to the sources of household income, Table 5 shows that wage constituted more than two-fifth of all sources. Comparing with present shows that the prominence of wage as a contributor to total household income has declined over the years, constituting a little over a quarter of incomes in Accra and other urban areas by 2013 (GSS, 2014a). The increasing dominance of non-wage employment as a source to incomes can be attributed to the high rate of employment from the informal sector, which presently stands at over 80% nationwide (Osei-Boateng & Ampratwum, 2011; Haug, 2014).

**Table 5. Sources of household income**

Source of Income	Accra in 1953	2013	
		Accra	Urban localities
Wage income	42.9	26.9	28.4
Non-wage income	57.1	73.1	71.6
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

**Source:** Compiled from *the Office of the Government Statistician (1953)* and *Ghana Statistical Service (2014)*.

### 3.1.2 Housing conditions

Another dimension of examining living conditions relates to issues of housing. The data affords the opportunity to analyse housing conditions emphasizing the number of households per house, room occupancy rates and rental values. The study covered 1,806 houses indicating an average of 2.7 households per house. About 36% of these houses were occupied by single households who constituted 13.4% of all the households interviewed. Of the multi-family houses, 24% were occupied by 5 or more households. With regard to room occupancy levels, the study reported an average of almost 2 persons per room with 65% of residents living in a room to themselves. While this may suggest that residents in general were not overcrowded in their rooms, almost one in every five household had 3 or more members occupying a room. Approximately 55% of the respondent households paid rent while the remainder did not but rather lived in their own homes or as free occupants. Housing studies (e.g. Konadu-Agyemang, 2001; Pellow, 2008) in the past showed the prominence of housing arrangements

where people mostly lived in houses belonging to their extended family (a type of family that transcends the immediate nuclear family to other blood relations). Strikingly, more households (73%) with wage earning heads paid rent compared to their compatriots with non-wage earning heads (i.e. 40%). This is corroborated by a research by Monroe, Weber and Hollingworth (1939) which showed that in Washington and Oregon, non-wage earners owned homes than wage earners, even in cases where incomes of the former were lower. However, factors such as ages of household heads and number of children were also major determinants. Unfortunately in this instance, the nature of the data available does not permit such multidimensional analysis. Information on rental values show that households spent on average, 30.7 Shillings on rent while the average rent paid for each room amounted to 19.1 Shillings<sup>2</sup>. Table 6 shows the average rent paid per household and for each room based on the number of rooms occupied. Although focusing only on wage earning headed households, the detailed budget study as will be shown subsequently, revealed that 5.4% of household expenditure went to rent. These budgets are analysed thoroughly in the following sections.

**Table 6. Monthly rent by rooms occupied per household**

<b>Number of rooms occupied</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>More than 4</b>	<b>Total</b>
Average monthly rent per family (Sh.)	23.6	43.5	52.8	56.2	53.5	30.7
Average monthly rent per room (Sh.)	23.6	21.8	17.7	14.0	8.9	19.1

*Source: Office of the Government Statistician (1953)*

<sup>2</sup> 10 Shillings was equivalent to ₵1.00 (the new currency introduced in 1965) or USD 1.39 at the time. Following a redenomination in 2007, ₵10,000.00 (of the old cedis) is equivalent to GHS 1.00 of today's currency.

### **3.2 Welfare aggregate and structure of household expenditure**

The details of the information gathered in the second part of the study provide a useful basis for welfare analysis. It must be stressed that the details of the budget used in the subsequent analysis were drawn from the 453 households with wage earning heads who satisfied the selection criteria outlined in section 2. Following common practices in many developing countries, household expenditure (as a measure of consumption) is more suitable for the analysis of living standards, since they do not fluctuate as much as incomes over time, especially from informal and agricultural sector sources (Deaton & Zaidi, 2002). In fact, this approach also lends itself for comparison with recent living standards analyses in the country which adopt consumption as a measure of living standards (GSS, 2014a; Molini & Paci, 2015).

A few shortcomings with this dataset are worth mentioning at this stage. Since the detailed budget inquiry dealt with only a segment of the city's population, some welfare related measurements such as inequality may be undermined with errors. In this case, measures that compare the upper and lower bands of the distribution are used here instead of that which assigns single estimates. Nonetheless, the structure of the data makes it suitable for undertaking estimates of welfare aggregates, typical expenditure levels as well as poverty measures. Even though these, especially the latter, could be a little conservative, historical estimates of such personal welfare indicators are better underestimated than to be overestimated. More importantly, the errors related to an appreciable minimum level of wellbeing would be minimized if absolute poverty lines are used over relative lines. That notwithstanding the interpretations derived should be dealt with meticulously.

Table 7 shows the categories of consumption as reported in the survey and the proportion of household expenditure spent on each item. This is compared with the current national trends as recorded by the Ghana Living Standards Survey (GLSS) round 6. Even though, in the case of the former, detailed budget study was conducted over a one month period (i.e. mid-May to mid-June), expenditure on clothing was collected over a year period and monthly estimates imputed. Records on consumption types were grouped under eleven expenditure classes with their respective mean total expenditure reported along with the proportions expended on each item. Again, whereas the 'normal' monthly household expenditure estimates are recorded

along with the actual expenditure recorded during the survey period, the latter is used for the analyses since the former is difficult to be verified. Following Deaton and Zaidi (2002), it can be observed that the details of consumption captured correspond to suggestions for constructing welfare aggregates. Table 7 shows that food expenditure took the largest share of household expenditure constituting 58%, which comprised 49.2% on food produced locally and 8.8% on imported foods. Current data shows that household expenditure commitment to food has declined with only 45.8% devoted at the national level and 41.7% in Accra. This signals an improvement in living standards over the years since it is expected for food share of total expenditure to decline as incomes increase (Barrington, 1997). Expenditure on housing and its associated services (10.1%) has somewhat stabilized when compared with national figures (11.3%) but show an increase in Accra (16.7%) by 2013.

**Table 7. Components and average proportions of aggregate consumption <sup>3</sup>**

Category	% of Total Aggregate	
	Accra (1953)	Ghana (2013)
<b>Food</b>	<b>58.0</b>	<b>45.8</b>
Local food	49.2	n.a
Imported food	8.8	n.a
<b>Non-food</b>	<b>42.0</b>	<b>54.2</b>
Clothing & Footwear	12.1	6.8
Drink & Tobacco	6.1	1.0
Housing and Rates	10.1	11.3
Services	5.8	25.3
Household durables	3.6	3.9
Miscellaneous	4.3	5.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>

n.a. – Not available

**Source:** Compiled from *the Office of the Government Statistician (1953)* and *Ghana Statistical Service (2014)*

<sup>3</sup> Service comprises expenditure on health care, education, postage, transportation, entertainment, laundry, shoe repairs and domestic assistance. The miscellaneous sub-component also consists of cleaning and washing materials, toiletries as well as newspapers. Since durables may be used over a period of time, imputations were made to capture the monthly consumption derived from such items like household equipment and furniture.

### 3.3 Examination of detailed household budgets

#### 3.3.1 Summary of descriptive statistics

Table 8 presents the summary statistics of key household, income and expenditure variables. While the minimum and maximum household sizes of those studied were 2 and 8 respectively, the average household size was 4.24. This shows an insignificant decline from 4.99 recorded for all households headed by wage earners. The average monthly household income was 328.59 *Shillings* whereas the average household expenditure stood at 304.19 *Shillings*. Similarly, the monthly per capita expenditure [PCE] (Sh. 71.63) fell short of the corresponding per capita income (Sh. 77.38) implying some savings on average, among residents. This translates into average daily PCE levels of 2.39 *Shillings*, which was roughly equivalent to ₵0.239 or USD 0.332 during 1953<sup>4</sup>. Although the budgets focused on households with wage earning heads, parts of their overall household incomes came from non-wage employment activities (mostly part-time jobs and trading). While the average wage income was higher than non-wage income, there were higher variations from the mean in the latter compared to the former, as given by their corresponding standard deviations. Yet, further analysis show that non-wage income contributed more to the total household incomes in the high expenditure classes (57% in the highest class) as against the low expenditure classes (15% in the lowest class). This shows that other non-wage employment was critical to determining the level of wellbeing of residents at the time. But overall, a higher proportion (about 66%) of total household incomes came from their wage employments which had a more stable amount.

---

<sup>4</sup> This is equivalent to GHS 3.95 PCE per day in today's real currency or USD 1.17 (Feb, 2017 exchange rate).

**Table 8. Summary statistics of selected variables**

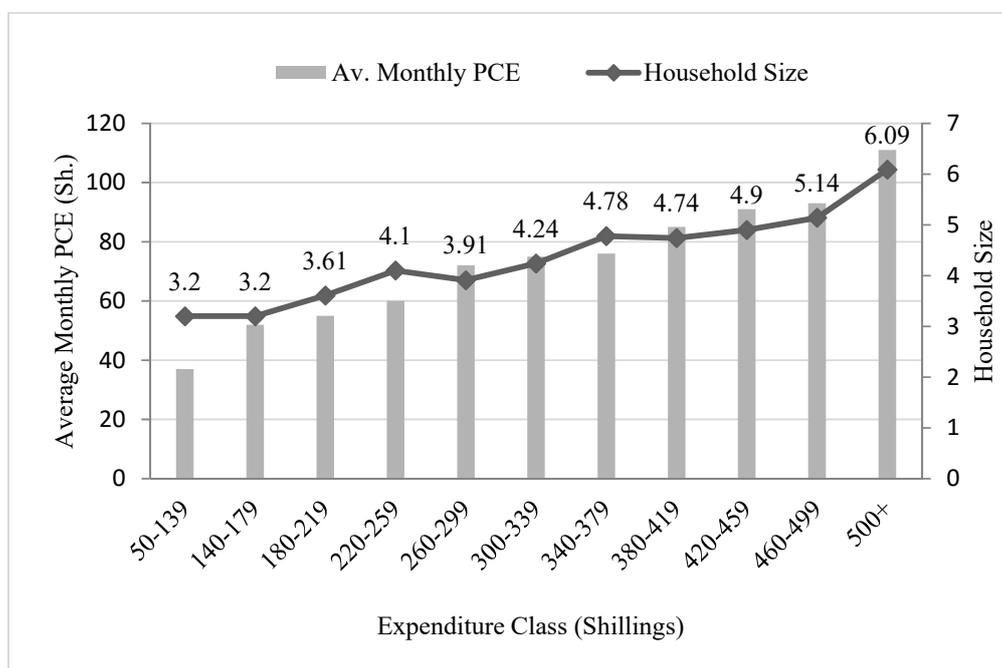
<b>Variable</b>	<b>Mean</b>	<b>Standard deviation</b>
Household income (Sh.)	328.59	133.97
Household wage income (Sh.)	224.40	35.39
Household non-wage income (Sh.)	127.78	114.25
Household expenditure (Sh.)	304.19	144.41
Per capita income (Sh.)	77.38	16.94
Per capita expenditure (Sh.)	71.63	19.99
Household size	4.24	0.77

*Source: Accra Survey of Household Budgets, 1953*

### **3.3.2 Household size and personal welfare**

While the average household size increases with the expenditure classes, Figure 3 shows that the monthly PCE also changes in the same direction. Residents belonging to the lowest household expenditure class consumed only one-half of the mean monthly PCE while those of the highest expenditure class spent one and a half of it. Comparing the two classes indicate that the highest class consumed three times as much as the lowest class. While information on the respective household composition, especially the ages of members, are lacking and therefore does not allow adjustment by equivalence scale, it can be inferred that higher PCE connotes higher standard of living as measured by consumption levels. In this regard, then nearly 53% of residents involved consumed more than the prevailing mean PCE. One needs to be cautious with interpreting this to mean high living standards amongst most of the residents in Accra, as it is indicated earlier that households headed by non-wage earners were not included. That notwithstanding, if the assumption of the researchers (i.e. Office of Government Statistician) that non-wage incomes rose with price increase is held true, one could safely make such conclusions in relative terms. Then again, that cannot be taken to mean very high living standards as the mean PCE is even below the amount required by each individual to maintain acceptable basic needs as would be shown latter.

**Figure 3. Monthly PCE and household size by expenditure class**



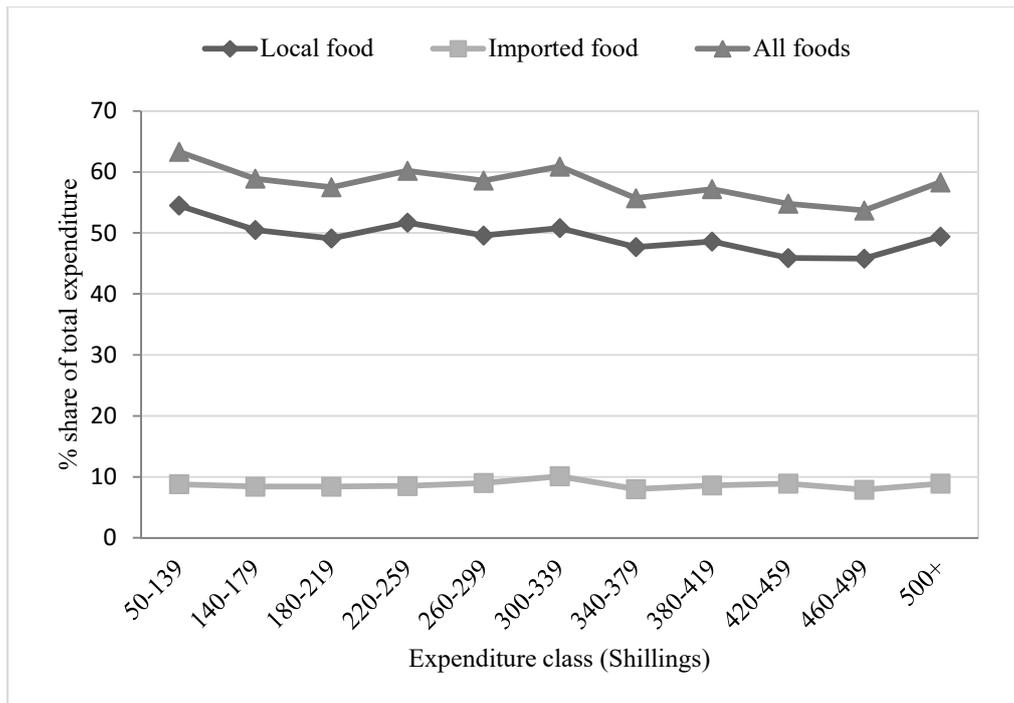
Source: Office of the Government Statistician (1953)

### 3.3.3 Household expenditure on food

Analysis of the components of the expenditure items shows a rather irregular trend. Unlike the suggestions by Engel's law, the share of total expenditure on food does not decline with expenditure class but rather exhibit an undulating trend (see Figure 4). Chakrabarty and Hildenbrand (2011) argue that this phenomenon might be due to the fact that other observable variables that affect both food and total expenditures (for example prices, household attributes and demographics) have not been controlled for. Even though the households may be confined to one geographical location, the differences in prices and tastes could influence the variations in actual expenditure on food; the rich may be consuming more of expensive food items while the poor buy cheaper ones. Again the shares of expenditure on imported foods which were generally more expensive do not support the Engel's law, so do the individual food items. As will be shown later, rigorous analysis of the data shows that even the richest do not have extremely high consumption levels as their PCE is less than twice the poverty line. Another probable explanation is the fact that the exclusion of the topmost part of wage

earners might not enable us to see a clear drop in the food expenditure ratio. Against this backdrop, it is not surprising that their food expenditure share ratios do not vary too much.

**Figure 4. Food share of total household expenditure by expenditure class**



**Source:** *Office of the Government Statistician (1953)*

## **4 Estimating poverty levels**

Comparing the per capita levels of consumption with a certain proportion of the average PCE, as shown in the previous section, may suggest that living conditions were relatively ‘normal’ among residents. However Kwakwani (2003) observes that since the prevailing standards of living in itself may not reflect an acceptable standard, the use of relative poverty lines is often not suitable for developing economies. As a result, an absolute measure which sets a certain minimum condition and allow for better evaluation of performance towards reducing poverty is more appropriate. Even though poverty has been a persistent development challenge in Ghana for a long time, as in other economies, serious attempts at measurement started after the introduction of the World Bank’s Living Standards Measurement Studies (LSMS) in the late 1980s. That notwithstanding, recent studies seeking to evaluate policies towards poverty reduction have sought to understand trends over time. Some scholars like Ross, Danziger & Smolensky (1987) adopted an approach of price-indexing official absolute poverty lines to enable comparing historical trends of poverty in a particular jurisdiction. However, Barrington (1997) shows that adopting such an approach does not make the poverty line absolute and instead argues for determining them based on the circumstances at the time in question. This paper adopts the latter in determining a suitable poverty line.

### **4.1 Setting the poverty line in Accra in the 1950s**

The most fundamental ingredient in poverty analysis is the determination of an appropriate poverty line with which various measures and profiles could be defined. While relative poverty lines offer a straightforward approach, the absolute poverty was adopted for this study following current practices for studies in developing countries as well as its inherent advantages over the former (see Kwakwani, 2003). Given the quality of data available, the most ideal methods for estimating the poverty line were the Orshanky and Cost of Basic Needs (CBN) methods. Unfortunately, the data as presented in the Accra Survey of Household Budgets report lacked information on food quantities which make calculations of calorie components and cost of calories derived from food items impossible. The next best strategy was to use figures from similar studies in the country and/or sub-region. Relying on

surveys conducted in Kumasi and Sekondi-Takoradi (other urban areas in Ghana) which captured food quantities, Poleman (1961) had estimated the cost per kilocalories of several food items. Recognizing price differentials across locations, adjustments were made to estimate the cost at 0.82 Shillings per kcal in Accra using spatial price indices constructed by the national statistical agency (GSS, 2014a)<sup>5</sup>.

The next stage involved the determination of the minimum caloric intake requirement. Nicholls (1951) cited by Poleman (1961) calculated a daily energy allowance of 2,100 calories required to maintain healthy life and undertake light physical activity in the tropics based on the 1948 recommendations of the Food and Nutrition Board<sup>6</sup>. Subsequent to the foregoing was the need to estimate the food poverty line with which a final poverty line would be calculated.

Whereas Mollie Orshanky originally used the costs of the economy food plan (i.e. the cheapest plan to attain a certain predetermined energy/nutrient requirements), the average cost of calories is used here due to the unavailability of information on different food plans. This stance is also justified by the fact that there were not any marked differences in the food consumption pattern among various expenditure groups. Based on this, the monetary requirement needed to meet the minimum food requirement was estimated at 52.26 *Shillings* per capita each month. This is set as the Food (or extreme) Poverty Line. The Orshanky Poverty Line was then calculated by the following formula:

$$Z = F_m * F_z$$

Where

$Z$  = poverty line

$F_m$  = food multiplier (calculated as the inverse of the food share of expenditure)

$F_z$  = food poverty line (or the expenditure to meet the minimum food requirement)

---

<sup>5</sup> Since there is lack of data on cost of living indices across all cities (and regional areas) during the 1950s and with the available data given by GSS (2014) showing no change over time in price differences between Kumasi and Sekondi-Takoradi, it was safely assumed that the relationships with Accra has also not changed. This served as the basis for adjusting the costs in the two cities to that of Accra.

<sup>6</sup> This energy intake recommended for the sedentary population is chosen under the assumption that urban residents are and have always been less active than the rural counterparts.

The relatively flat slope of the food share ratio by expenditure groups in Accra provides a basis for using the average food share in our analysis. The final poverty line ( $Z$ ) by the Orshanky method is therefore estimated at *90.10 Shillings* per capita per month.

On the other hand, the CBN method requires scaling up the food poverty line to allow for non-food component. Following Ravallion (1994) and the World Bank (2011), the expenditure group with PCE closer to the food poverty line was used as reference to estimate the non-food basic needs allowance. The average non-food expenditure of the three reference groups closest the food poverty line (representing approximately 41% of their typical PCE) was calculated at *22.02 Shillings* per capita per month. Thus the final poverty line by the CBN method, which is the sum of the food and non-food basic needs allowances, is estimated at *74.28 Shillings per capita per month*. While the Orshanky and CBN methods result in significantly different final poverty lines, using both in the analysis are useful to establish upper and lower bounds of poverty measures.

## **4.2 Poverty measures**

The widely used Forster-Greer-Thorbecke indices were used for poverty analysis in this study to enable easy comparison with recent studies on Accra. These include the poverty incidence or headcount ratio (H), poverty gap index (PG) and the poverty gap squared index (PG<sup>2</sup>). Table 9 shows an incidence of poverty between 49% and 67%. Assuming that the most of 30% of wage earners excluded from this survey had higher incomes than those considered, then the lower headcount ratio of approximately 49% will qualify as the more representative figure of poverty incidence in Accra as of 1953. Recent study by the Ghana Statistical Service suggests that poverty incidence in the city reduced to 12% in 2005/06 and 3.5% by 2012/13 (GSS, 2014a). This marks a tremendous improvement in general living standards in the city since independence compared to other regions of the country that still have poverty incidence in double digits (GSS, 2014a). The relatively higher standards of living in Accra might be a major contributing factor to the high in-migration in the Greater Accra region, which has approximately 66% of its residents being migrants (GSS, 2014b). Considering the depth of poverty, the data shows that on average the poor fell short of minimum consumption

expenditure by 24.8% in 1953. This figure has gradually declined to 3.4% in 2005/06 and 0.9% in 2012/13.

**Table 9. Poverty incidence, depth and severity in Accra, 1953**

<b>Measure</b>	<b>Orshanky</b>	<b>CBN</b>
Headcount ratio (H)	67.34	49.16
Poverty gap index (PG)	24.81	17.72
Poverty gap squared index (PG2)	13.13	9.27

**Source:** Author's calculations based on *Accra Survey of Household Budgets, 1953*

### **4.3 Incidence of extreme poverty**

While the [upper] poverty line connotes insufficiency of a person to meet the minimum basic needs, extreme poverty imply the inability to meet the basic food requirements even if all resources are expended on food. Given an extreme poverty line of Sh. 52.26 per capita expenditure per month, about 26.9% of residents were extremely poor in Accra in 1953. This has consistently declined to 4.5% in 2005/06 and 0.5% by 2012/13 (GSS, 2014a). Similarly, the average gap from the extreme poverty line reduced from 9.3% in 1953 to 1.1% in 2005/06 and to 0.1% in 2012/13.

## 5 Conclusion

Over the years, discussions about wellbeing in Ghana has been very contentious with some arguing that the general living conditions were better during colonisation and the immediate years after independence but only began deteriorating from the early 1970s following successive coup d'états and structural adjustment programmes (Austin et al, 2007). Others argue that even if the national economic outlook looked good, the European exploitation led to poor economic conditions of the indigenous residents and therefore cite that as an incentive towards the push for de-colonisation (Acemoglu, Simon & Robinson, 2002; Kironde, 2007). Wherever one stands, it is generally agreed that the growth of an economy ought to positively affect the people and be inclusive. While it is acknowledged that a nationwide data would be more appropriate for examining how the national wealth were distributed, analysis on Accra, which was the centre of government, planning and all forms of agitations should give an indication of the level of wellbeing across the country.

This paper has dwelt on old household budget data gathered principally for determining consumer price indices to examine the personal income distribution and level of income related deprivation among indigenous workers in Accra in the 1950s. Measuring in relative terms, one would argue that there were no marked differences among residents of Accra those days given by their PCE relative to the mean. However, adopting an absolute approach reveal higher incidence of poverty in the region of about half of the population. The most part of household expenditure devoted to food among all expenditure classes further gives credence to general low standards of living among indigenous residents at the time. This perhaps, and as shown by the rate of poverty, gives the indication that residents did not earn much to spend on non-food basic needs or in the extreme cases, on luxurious items. Considering the political and economic importance of the city, it is not unusual to suggest that such poor conditions of living were just a replica of the entire country of Ghana.

Even among the different categories by expenditure, it has been shown that incomes generated from traditional wage sources were not enough to maintain a reasonable level of welfare. Non-wage component of incomes from family trade, self-employment and other non-waged jobs remained a major contributor to household wellbeing, rising to as much as 57% among

the top expenditure group. It also shows unsurprisingly that the wage component of household incomes were more dotted closely around the average compared with the non-wage component, pointing to an indication of similarities in wage incomes among residents. The low values of spread recorded during 1953 are a reflection of the relative homogeneity in the city with regards to ethnicity, educational attainment and employment.

Today, the rate of poverty in the city has declined to below 5%. This general improvement in standards of living, in monetary terms, could partly explain the increased migration of residents of other regions to Accra which has contributed to the city consistently being ranked among fastest growing towns in Ghana. That notwithstanding, further research is required to examine how other non-monetary indicators of wellbeing have changed over time. Regardless that the old household budget surveys may not cover the scope of variables that are studied in modern surveys, a careful scrutiny of the sources along with other census documents and other technical reports on the country provides wealth of information to study about the economic history of the country.

## References

- A'Hearn, B., Amendola, N. & Vecchi, G. (2016). On Historical Household Budgets. *Rivista di Storia Economica*, XXXII, 2: 137-176.
- Acemoglu, D., Simon, J. & Robinson, J.A. (2002). Reversal of fortune: Geography and institutions in the making of the modern world income distribution. *Quarterly Journal of Economics* 117(4), 1231-94.
- Acquah, I. (1958). *Accra Survey: A social survey of the capital of Ghana, formally called Gold Coast, undertaken for the West African Institute of Social and Economic Research, 1953-1956*. London: University of London Press Ltd.
- Anthony, M. (2015). *Night lights and regional income inequality in Africa* (UNU-WIDER Research Paper No. 85).
- Austin, G., Baten, J. & Moradi, A. (2007). *Exploring the evolution of living standards in Ghana, 1880-2000: An anthropometric approach*. Retrieved on 08/06/2016 from <http://www.ehs.org.uk/dotAsset/896f8e5d-6516-4b25-9e4e-e8665e79da5f.pdf>.
- Barrington, L. (1997). Estimating Earnings Poverty in 1939: A Comparison of Orshansky-Method and Price-Indexed Definitions of Poverty. *The Review of Economics and Statistics*, 79(3), 406-414
- Chakrabarty, M., & Hildenbrand, W. (2011). Engel's law reconsidered. *Journal of Mathematical Economics*, 47(3), 289-299.
- Cogneau, D. & Rouanet, L. (2009). *Living Conditions in Côte d'Ivoire, Ghana and Western Africa 1925-1985: What Do Survey Data on Height Stature Tell Us?* A paper prepared for the World Economic History Congress, Utrecht, 3-7 August 2009.
- Deaton, A. & Zaidi, S. (2002). *Guidelines for Constructing Consumption Aggregates for Welfare Analysis*. LSMS Working Paper No. 135. Washington D.C: World Bank.
- Deaton, A. (2007). Height, health, and development. *Proceedings of the National Academy of Sciences*, 104(33), 13232-13237.
- Economic Commission for Africa [ECA] (1959). *Statistical Field Surveys in Ghana, Office of the Government Statistician*. Conference of African Statisticians, 28<sup>th</sup> September – 8<sup>th</sup> October, 1959, Addis Ababa, Ethiopia. Working Paper 16.
- Engerman, S.L. (1997). The Standard of Living Debate in International Perspective: Measures and Indicators. In Steckel, R.H. & Floud, R. (Eds.) *Health and Welfare during Industrialization* (17-46.), University of Chicago Press.

- Ghana Statistical Service (2014b). *2010 Population and Housing Census: District Analytical Report, Accra Metropolitan*. Accra.
- Ghana Statistical Service [GSS] (2013). *2010 Population and Housing Census. National Analytical Report*. Accra.
- Ghana Statistical Service [GSS] (2014a). *Ghana Living Standards Survey Round 6: Poverty in Ghana (2005-2013)*. Accra.
- Ghosh, T., Anderson, S. J., Elvidge, C. D., & Sutton, P. C. (2013). Using night time satellite imagery as a proxy measure of human well-being. *Sustainability*, 5(12), 4988-5019.
- Haug, J. (2014). *Critical overview of the (urban) informal economy in Ghana*. Friedrich Ebert Stiftung, Ghana Office.
- Howard, A. (1999). *When the People Decide: A Study of the Independence Movement in Ghana*. African Diaspora ISPs. Paper 41.
- Iliffe, J. (1987). *The African poor: A history* (African Studies Series No. 58). Cambridge University Press.
- International Bank for Reconstruction and Development [IBRD] (1953). *Report on the Gold Coast*. Department of Operations, Europe, Africa and Australasia. (March 13, 1953).
- Kironde, J. L. (2007). Race, class and Housing in Dares Salaam. In: J.R. Brennan, A. Burton & Y. Lawi, (Eds.), *Dar es Salaam. Histories from an emerging African Metropolis* (pp. 97-117), Dar es Salaam: Mkuki na Nyota Publishers.
- Konadu-Agyemang, K. (2001). A survey of housing conditions and characteristics in Accra, an African city. *Habitat International*, 25(1), 15-34.
- Kwakwani, N. (2003). *Issues in Setting Absolute Poverty Lines*. Poverty and Social Development Papers No. 3, Asian Development Bank.
- Milanovic, B. (2002). True world income distribution, 1988 and 1993: First calculation based on household surveys alone. *The Economic Journal*, 112(476), 51-92.
- Molini, V. & Paci, P. (2015). *Poverty Reduction in Ghana: Progress and Challenges*. Washington DC: The World Bank.
- Monroe, D., Weber, M. S., & Hollingsworth, H. (1939). *Family income and expenditures. Pacific region 1, Family income*. US Department of Agriculture Miscellaneous Publications.

- Moradi, A, Austin, G. & Baten, J. (2013). *Heights and Development in a Cash-Crop Colony: Living Standards in Ghana, 1870-1980*. Retrieved from [http://users.sussex.ac.uk/~am401/research/Heights\\_Ghana\\_1870\\_1980.pdf](http://users.sussex.ac.uk/~am401/research/Heights_Ghana_1870_1980.pdf) (Accessed on 02/09/2016).
- Mveyange, A. (2015). *Night lights and regional income inequality in Africa*. World Bank.
- Office of the Government Statistician (1953). *1953 Accra survey of household budgets*. Statistical and economic papers, no. 2, Gold Coast.
- Osei-Boateng, C & Ampratwum, E. (2011). *The informal Sector in Ghana*. Friedrich Ebert Stiftung, Ghana Office.
- Pellow, D. (2008). *Landlords and lodgers: Socio-spatial organization in an Accra community*. University of Chicago Press.
- Poleman, T. T. (1961). The food economies of urban Middle Africa: the case of Ghana. *Food Research Institute Studies*, 2, 121-175.
- Ravallion, M. (1994). *Poverty Comparisons*, Harwood, Chur.
- Ross, C., Danziger, S. & Smolensky, E. (1987). The Level and Trends of Poverty in the United States, 1939-1979. *Demography* 24(4), 587-600.
- Serra, G (2014). An uneven statistical topography: the political economy of household budget surveys in late colonial Ghana, 1951–1957. *Canadian Journal of Development Studies*, 35(1), 9-27.
- Smiley, S. L. (2009). The City of Three Colors: Segregation in Colonial Dar es Salaam, 1891-1961. *Historical Geography*, 37, 178-196.
- Steckel, R. H. (2009). Heights and human welfare: Recent developments and new directions. *Explorations in Economic History*, 46(1), 1-23.
- Vecchi, G. (2017). *Measuring Wellbeing. An History of Italian Living Standards*. New York: Oxford University Press.
- World Bank (2011). *Poverty Trends, Profiles and Small Area Estimation (Poverty Maps) in Republic of Fiji (2003-2009)*. Accessed on 08/03/17 from <http://documents.worldbank.org/curated/en/541511468249704606/pdf/638420ESW0P1150isclosed0100310110FJ.pdf>

### **Appendix 1: Sub-districts of the wards in Accra**

The sub-districts making up the wards include the following:

<b>Wards</b>	<b>Sub-districts</b>
A	Korle Gonno, Korle Bu & Larteh Biokoshie
B	Sabon Zongo, Kaneshie, Abossey Okai
C	Adabraka
D	James Town and Ussher Town
E	Tudu
F	Christianborg, including South Labadi Estate
G	Labadi

*Source: Office of the Government Statistician (1953)*