

University of Windsor

## Scholarship at UWindor

---

Electronic Theses and Dissertations

Theses, Dissertations, and Major Papers

---

1990

### Characteristics and behaviour of migrants and non-migrants in southeastern Ghana: A case study of two selected villages in relation to Koforidua town.

Siaw. Akwawua  
*University of Windsor*

Follow this and additional works at: <https://scholar.uwindsor.ca/etd>

---

#### Recommended Citation

Akwawua, Siaw., "Characteristics and behaviour of migrants and non-migrants in southeastern Ghana: A case study of two selected villages in relation to Koforidua town." (1990). *Electronic Theses and Dissertations*. 1389.

<https://scholar.uwindsor.ca/etd/1389>

This online database contains the full-text of PhD dissertations and Masters' theses of University of Windsor students from 1954 forward. These documents are made available for personal study and research purposes only, in accordance with the Canadian Copyright Act and the Creative Commons license—CC BY-NC-ND (Attribution, Non-Commercial, No Derivative Works). Under this license, works must always be attributed to the copyright holder (original author), cannot be used for any commercial purposes, and may not be altered. Any other use would require the permission of the copyright holder. Students may inquire about withdrawing their dissertation and/or thesis from this database. For additional inquiries, please contact the repository administrator via email ([scholarship@uwindsor.ca](mailto:scholarship@uwindsor.ca)) or by telephone at 519-253-3000ext. 3208.



National Library  
of Canada

Bibliothèque nationale  
du Canada

Canadian Theses Service

Service des thèses canadiennes

Ottawa, Canada  
K1A 0N4

## NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

## AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

CHARACTERISTICS AND BEHAVIOUR OF MIGRANTS AND  
NON-MIGRANTS IN SOUTHEASTERN GHANA: A CASE  
STUDY OF TWO SELECTED VILLAGES IN  
RELATION TO KOFORIDUA TOWN

BY

Siaw Akwawua

A Thesis submitted to the  
Faculty of Graduate Studies and Research  
through the Department of Geography  
in Partial Fulfillment of the  
requirements for the Degree  
of Master of Arts at the  
University of Windsor

Windsor, Ontario, Canada

1990



National Library  
of Canada

Bibliothèque nationale  
du Canada

Canadian Theses Service    Service des thèses canadiennes

Ottawa, Canada  
K1A 0N4

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-61874-4

Canada

*[Faint, illegible handwritten text]*

Copyright Siaw Akwawua 1990.

## ABSTRACT

In most studies of rural-urban migration especially in the developing countries, migration behaviour is mainly examined through surveys at the point of destination of the migrants. This approach ignores the home origins of the migrants and hence, the decision to migrate or not to migrate is not examined from this perspective. Also such studies do not distinguish between the reasons for selecting a destination and the reasons for moving out of the source areas.

This study departs from conventional migration research tradition in that it examines migration behaviour from evidence obtained from migrants at their destination, Koforidua and also from non-migrants at the home origins of the migrants. This is in line with the theoretical perspectives on migrant selectivity. The salient methodological approach of the study focuses on three main issues. Firstly, we tried to assess the significance of individual level factors and the areal\contextual variable of distance in determining the likelihood of out-migration. Secondly, we attempted to disaggregate our operationalization of the migration decision-making process into two stages: (i) the decision to move out of the home village and (ii) the selection of Koforidua as a destination. Lastly, we also provided evidence on the reasons why the non-migrants do not migrate, an issue that is often neglected in migration studies.

The procedure used to evaluate the above three issues involved two main stages. In the first stage, logit analysis was used in the identification of the important determinants of out-migration. In the estimation model, the dichotomous dependent variable, migration status, was related to such individual level factors as age, marital status, education, and skill levels and also distance to Koforidua.

The maximum likelihood estimates indicate that all the estimated coefficients have directions consistent with the findings of previous research and our theoretical perspectives. More research is, however, needed for definitive conclusions to be made on our findings.

In stage two of the analysis, the subjective approach was used to ascertain the factors influencing the migrational behaviour of the survey population. The analysis suggests that while non-migration has economic undertones, perhaps the most apparent influences on the non-migrants' mobility are the socio-psychological factors of family considerations and psychic attachment to the village of origin. With respect to the migrants, while job opportunities are important considerations in the decision to out-migrate and the selection of Koforidua as a destination, in the latter decision, the role of social ties and channels of information assume prominence.

## ACKNOWLEDGEMENTS

I am particularly grateful to my advisor, Dr. A. Lall and committee members, Dr. G. Romsa and Dr. P. R. Burrell for their careful guidance and suggestions. Despite their tight schedule of work they found time to read through the manuscript.

The study would not have been possible, however, without the sustained interest and moral support of my wife, Dora. All the coding of the questionnaires were done by her single handedly.

The assistance of my brothers and friends who helped me with the tedious survey work in the villages and in the slum areas of Koforidua town is also appreciated.

Thanks are also due to all the Faculty and staff of the Department of Geography for their friendliness and co-operation which, in no mean way, contributed to the successful completion of this study. They aided me in ways too numerous to mention.

All errors of the study are, however, entirely mine.



## TABLE OF CONTENTS

ABSTRACT .....	iv
ACKNOWLEDGEMENTS .....	vi
TABLE OF CONTENTS .....	vii
LIST OF TABLES .....	viii
LIST OF FIGURES .....	x
CHAPTER I. INTRODUCTION .....	1
CHAPTER II. LITERATURE REVIEW .....	11
CHAPTER III. METHODOLOGY .....	34
CHAPTER IV. ANALYSIS AND RESULTS .....	68
CHAPTER V. CONCLUSIONS AND RECOMMENDATIONS .....	103
APPENDIX (SURVEY QUESTIONNAIRES) .....	112
BIBLIOGRAPHY .....	131

LIST OF TABLES

1. Measures of Variables .....	53
2. Place of Birth of Heads of Households by Migration Status (In Percentages) .....	67
3. Age Composition of Survey Population by Migration Status (In Percentages) .....	68
4. Marital Status of Survey Population Classified by Migration Status (In Percentages) .....	69
5. Educational Status of Survey Population by Migration Status (In Percentages) .....	70
6. Occupational Groups of Survey Population Classified by Migration Status (In Percentages) .....	71
7. Migrants' Post-migration Occupational Changes (In Percentages) .....	72
8. Skilled Trades of Survey Population Classified by Migration Status (In Percentages) .....	73
9. Income Distribution of Survey Population Classified by Migration status (In Percentages) .....	74
10. Distance from the Home Villages of the Survey Population to the Destination town, Koforidua by Migration Status .....	75
11. Correlation Coefficients of the Independent Variables .....	77
12. Logit Estimate Results .....	79
13. Classification Table of Predicted versus Observed values of Migration Status .....	89
14. Distribution of Migrants by Reasons for Moving out of the Survey Villages .....	91
15. Distribution of Non-Migrants by Reasons for Staying in the Survey Villages .....	93
16. Distribution of Migrants by Reasons for Selecting Koforidua as a Destination .....	95

17. Distribution of Migrants by sources of Information about the Destination, Koforidua .....	97
18. Distribution of Migrants by Residence on First Arrival at Koforidua .....	98

LIST OF FIGURES

1. Map of Ghana Showing Study Areas ..... 6(a)  
2. A Priori Model ..... 45

CHAPTER 1  
INTRODUCTION

Evidence from the literature on migration indicates that research effort is directed towards the determination of the variables relevant in the migration decision-making process in order to provide explanations of the differences in individual propensities to migrate. Some of the theories developed to explain these differences deal specifically with the characteristics of migrants (Ravenstein, 1885; Lee, 1966). The migration literature is, therefore, replete with studies which use differences in age, sex, education, marital status, etc. between migrants and non-migrants to explain the movements of people (Addo, 1975).

It should be noted, however, that most of such studies are done at the urban destination of the migrants. Thus, it is usual for such studies to compare the characteristics of the migrants with the characteristics of the non-migrants (ie. natives) at the destination areas. Therefore, in spite of the theoretical formulation on migrant selectivity (Lee, 1966) it can be said that relatively few attempts have been made to investigate the characteristics of migrants in relation to the characteristics of the non-migrants in the source areas ie. the home origins of the migrants. It is because of this that some scholars are wont to suggest that knowledge about migrant selectivity is at best speculative and inferential in character and so, the crucial question as to what characteristics distinguish migrants from non-

migrants is still posed in the literature (Browning and Feindt, 1969; Goldstein, 1984).

Another research gap which this study seeks to fill is the neglect of the subject of non-migration from surveys of migrants (Uhlenberg, 1973). Since most migration studies are conducted either with aggregate data or in the case of survey data, in the urban destination of the migrants it is not possible to obtain the reasons for not moving from the non-migrants in the source areas of the migrants. But it has been suggested that in order to understand the migration process, sometimes the basic problem is not why some people choose to migrate but rather why some other people choose not to migrate (Peterson, 1958). In this context, some scholars have pointed out that theory formulation in migration studies is hampered not only by the multivariate factors involved, but even more important, by the emphasis on the motivation for migration to the neglect of the constraints on mobility (Uhlenberg, 1973).

Since people respond differentially to incentives to migrate, it is argued that migration behaviour must be factored into two dimensions; namely, the decision to move, and the choice of destination (Brown and Moore, 1970; Morrison, 1973). Operationalizing migration behaviour in this way allows the adoption of a convenient two stage analytic procedure. The first stage focuses on the out-migration decision and is crucial to the determination of the characteristics of the movers and non-movers and explanations of both types of behaviour. The second stage of

the procedure involves the examination of the determinants of the destination selection. This two stage approach is very important in survey research because the migrants' reasons for moving out of their place of origin are not the same as their reasons for the choice of their particular destinations.

Little previous research has been conducted with the specific goal of exploring the empirical utility of this two stage analytic approach (Williams and McMillen, 1980). Furthermore, most of the few previous studies done in this area are from the developed countries particularly the United States of America. Examples include the works of Clark and Ballard (1980) in the Appalachia, and Gustavus and Brown's (1977) study in Columbus, Ohio. As already pointed out above, in the developing countries, especially Ghana, most migration surveys concentrate on the urban destination of migrants so that the non-migrants in the home origins of the migrants interviewed are not considered in the analysis. This is done in spite of persistent calls for research focusing on both migrants and non-migrants (Goldstein, 1984). Also, the studies do not have as a specific goal the need to promote understanding of the destination selection process as distinct from the decision to move out of the home origin. Such studies, therefore, according to Brown and Sanders (1981), ignore the decision to migrate or not to migrate. This is a serious research omission which this study attempts to correct.

Additionally, the findings of the above mentioned previous research are for a highly industrialized country and the question

can be posed whether similar patterns can be found in a country like Ghana which is at a very low level of development. More specifically, it can be argued that in a country like the United States, which has attained a relatively high level of economic development, the socio-economic differences between the various parts of the country, especially between the rural and urban areas, have been drastically reduced. On the other hand, in many developing countries such as Ghana, the differences in socio-economic development levels between rural areas and the growing industrializing and commercial towns and cities are particularly pronounced. In such countries, there is a clear bias in the distribution of national resources and the developmental efforts of the various governments such that, there is a concentration of the most modern socio-economic infrastructure in the few towns and cities to the apparent neglect of the rural areas (Cox-George, 1973; Amin, 1974). Given these differences, it appears reasonable to assume that the characteristics of the migrants, and the non-migrants as well as the causes of their particular migrational behaviour may be different.

This study seeks to address the above problems and omissions by means of analyzing micro-level data obtained through surveys of non-migrants in two selected villages and of migrants from these same villages who have moved to take residence in the destination, Koforidua, which is a fast-growing commercial town in the southeastern part of Ghana. The study can therefore be looked upon as basically exploratory in nature being necessitated by the



paucity of research in this area.

### Scope and Purpose

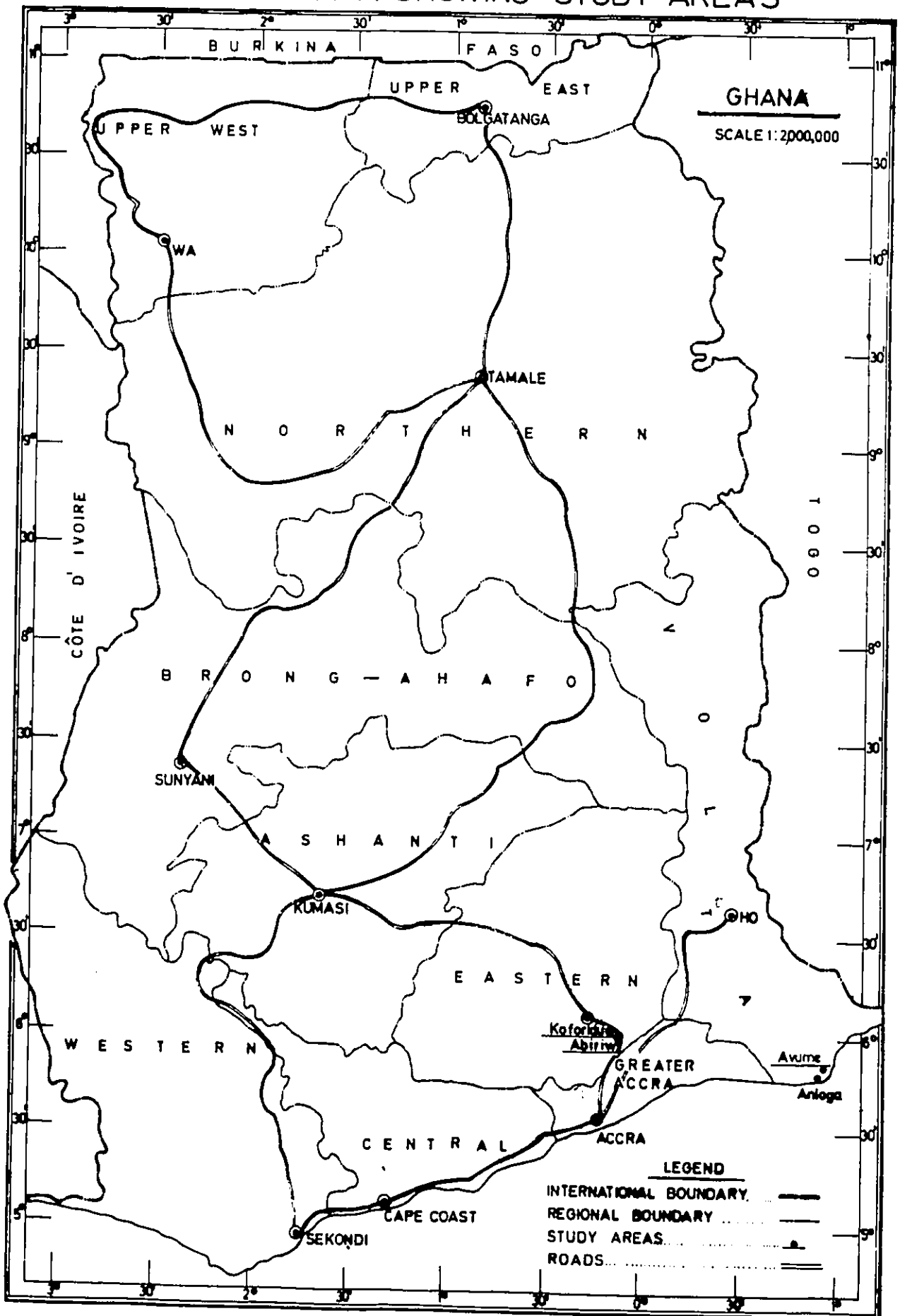
In this study we adopt a cross-sectional analysis to study the migration decisions among a sample of non-migrants who are residents of two selected villages and migrants who have moved from these same villages to the urban town of Koforidua. The purposes are the following:

1. To examine individual level factors such as age, educational attainment, skill levels, and marital status and assess how they differentially affect the propensity to migrate or not to migrate.
2. To find out and analyze the factors which hinder or promote migration.
3. To identify and analyze the factors which influence migrants in their choice of Koforidua as a destination.

### The Study Area

The Southeastern part of Ghana has been chosen as the study area for the purposes of this research. From this area, two villages and one urban centre are selected for the survey locations. The two villages, Abiriw and Avume, were selected for the survey of the non-migrants while the urban town, Koforidua, served as the survey location for the destination of the migrants (see map). The selection of the southeastern part of Ghana for

# MAP OF GHANA SHOWING STUDY AREAS



investigation was prompted by several considerations. Of all the geographical regions of the country, it is the southeastern part which typically satisfies the needs of the study. In the first place, the area is the most urbanized part of Ghana although rural settlements remain important features of the cultural landscape (Boateng, 1955; Addo, 1966). Secondly, the southeastern part of Ghana is characterized by a diversity of ecological, economic, and socio-cultural conditions (Forde, 1968; Dickson, 1969) and is therefore an area which is suitable for the purposes of this study.

The area embraces the forest zone suitable for the cultivation of cash crops such as cocoa, rubber, kolanuts, and oil palm. It also embraces the open savannah grasslands whose characteristic landscape consists of extensive plains broken up in places, especially towards the south, by swamps, lagoons, and coastal creeks. The grassland areas are utilized for peasant food production such as cassava and maize; with some sugar cane and coconut been produced for the local market. It must be noted, however, that large areas occupied by the swamps, lagoons, and coastal creeks reduce the amount of arable land. The survey locations were selected to reflect these different ecological and economic conditions. While the village, Avume, is located in the savannah grassland subsistence cropping zone, the other village, Abiriw, and the town, Koforidua, are situated in the forest cash cropping area. However, the forest cash cropping area is not a uniform or homogeneous ecological zone. For, the fertile lowlands are broken up by the Akwapim-Togo mountain ranges on which Abiriw

is located. Here farmland is severely restricted by the mountain ranges (Dickson, 1969).

There is yet a third consideration. Previous research indicates that the southeastern part of Ghana is an area of considerable migration (Engmann, 1972; Addo, 1975a). The forest cash cropping area attracts migrants especially tenant farmers and farm labourers from the rest of the country. In particular, the land starved people of the Akwapim-Togo ranges where Abiriw is located and also the land hungry peasants of the savannah grassland area where Avume is situated are drawn to the rich forest areas (Dickson, 1969; Poly Hill, 1977). Poly Hill (1977), in her study of migrant cocoa farmers of southeastern Ghana, has succinctly documented the phenomenon of chain migration set in train by migrants from the above two poor ecological zones to the forest area, particularly to Koforidua and its environs where cocoa, the mainstay of Ghana's economy, is the main cash crop.

From the foregoing it can be seen that the forest zone of the southeastern part of Ghana is an area characterized by both in- and out-migration. There is persistent out-migration from the area of the two villages, Abiriw and Avume. On the other hand, the area centred on the town, Koforidua, is a zone which is noted for considerable in-migration. Previous research indicates that not everybody out-migrates. Also, there is evidence that out-migrants invariably return to their home places of origin. Thus, in the southeastern part of Ghana, it is possible to find all forms of migration: in-migration, out-migration, return migration, and also

non-migration.

On the basis of the above considerations the selection of the study area was deemed justifiable. It was considered necessary to conduct the first survey ie. the non-migrant survey, in areas of out-migration. For, it is in areas of out-migration that we can better investigate the phenomenon of non-migration. Furthermore, a survey in such areas would allow us to easily obtain information concerning out-migrants and where they are currently residing ie. their destinations. Thus, empirical evidence from the surveys in the two villages pointed to the town Koforidua as the major destination of the majority of the out-migrants.

The choice of the survey locations is also consistent with the standard definitions of town and village in Ghana. In that country, the statistical definition of an urban area or town is any locality with population 5,000 or more. Other localities with population less than 5,000 are classified as rural. According to the 1970 Population census of Ghana, the population of Koforidua was 46,235. Out of this number, only 18,987 persons were born in the town, whereas 27,248 people were classified as born elsewhere. Thus, going by the place of birth statistics, 58.9% of the population of the town were classified as migrants in 1970. (It should be pointed out that the results of the latest census in 1984 have not been officially published). Therefore, not only does Koforidua have an urban status and hence is a town, but even more important, since more than one half of its population are migrants it can be described as a migrant town. The 1970 populations of the

two villages, Abiriw and Avume, were 1,362 and 786 respectively.

#### Importance of the study

This study can be said to have both theoretical and practical importance. The refinement of migration theories, the development of new concepts, and the building of models to explain differentials in individual propensities to migrate, all require the empirical testing and verification of various hypotheses at the micro-level. In this context, this study will provide new evidence which will help further the understanding of previous research findings relating to the relevant variables in migration decision-making. Since we compare migrants with the non-migrants in the source areas of the migrants, the analysis is more in keeping with the theoretical formulation on the selectivity of migration (Lee, 1966) which requires that migrants be compared with the populations of their origin areas and not with the populations of the destination areas to which the migrants move to take residence as most research would have us believe.

There is another theoretical importance of this study. This derives from the fact that the phenomenon of non-migration is largely an unexplored component of migration behaviour. This study therefore has the added advantage that it will provide information about the reasons for not moving. Such pieces of information are needed to supplement the reasons for moving for theory development (Uhlenberg, 1973).

At the policy making level, an adequate and concise knowledge

of the peculiar characteristics of migrants is necessary to provide the framework for the evolution of policies to redirect migration to desired areas so as to ease the congestion of the towns and cities in many developing countries. Furthermore, it is when we know why certain people do not migrate that we can evolve policies aimed at improving the living conditions of the people of the rural areas in order to enable their localities retain a greater proportion of their inhabitants. In this way we may be able to avoid the total decay and stagnation of the rural areas.

Lastly, it can be said that since only very few previous research efforts have been directed specifically to study migration behaviour within a two-stage analytic procedure, the study will serve the expected role of filling a yawning research gap in a developing country, Ghana.

CHAPTER II  
LITERATURE REVIEW

Migration research has always been dominated by three main questions; namely, who moves, why do they move, and where do they move? In providing answers to these questions, recent migration research has been less descriptive and more analytical in approach. There is a greater emphasis on model building and the construction and testing of frameworks to explain and/or predict migration behaviour both in aggregate terms but more especially, at the micro-level with survey data.

In survey research, the phenomenon of migration is conceptualized as a decision-making process (Rossi, 1955). Some scholars argue that it is a process which involves more than one decision. In fact Brown and Moore (1970), have suggested that for a significant number of migrants, migration involves at least two decisions: (i) the decision to leave an area of origin (ie. out-migration decision) and (ii) the decision of where to move (ie. in-migration decision or destination selection). It is necessary to distinguish between these two decisions because the usual survey questions about the reasons for moving, elicit from the migrants the factors which influenced their decision to out-migrate. Thus, there is the need for a separate question to ascertain the factors surrounding the destination selection.

Williams and McMillen (1980), examined the migration behaviour of 710 in-migrants to 75 non-metropolitan counties in the Mid-west



of the United States that had more than 10% net in-migration between 1970 and 1975. In the survey questionnaire, the authors included separate open-ended questions which elicited from the respondents their reasons for leaving the place of origin and also the criteria for the selection of the destination. The analysis of the responses to these questions ignored multiple reasons and concentrated on only the major reason cited by each respondent.

Williams and McMillen's (1980), analysis found that the motivational factors influencing both the in- and out-migration decisions of their sample population were very different. While only about 18% of the respondents decided to leave their home origins because of some form of ties, nearly half ie. 47.6% chose their destination on the basis of some ties to the destination area. Some of these ties were: moving closer to business, to family and friends, and to receive property. Such ties are referred to as 'location-specific capital' and it is a concept which was developed by DaVanzo and Morrison (1978), to account for the phenomenon of return migration. By applying this concept, Williams and McMillen (1980), found that 65% of the migrants who had prior experience of an area gave reasons which showed that they were influenced by location-specific capital in their destination selection. On the other hand, only 40% of those who did not have any previous experience of the area were influenced by some ties in their choice of destination. This finding demonstrates the influence of 'ties' to a place or location-specific capital in both the decision to leave a place and also the choice of a new location or destination.

The analysis by Williams and McMillen (1980), was also able to identify migrants whose choice of a destination could be directly linked to the reason for leaving the home place. This category of people included persons on transfer or those who had found or were seeking a new/better job. Thus, 57% of the migrants who were motivated to leave their home place for job reasons, tended to choose a destination on the basis of job-related criteria.

McHugh (1985), examined the migration reasons for a sample of 167 households in Illinois and Pennsylvania, U.S.A. The initial survey dealt with prospective migration ie. whether the respondents had any intentions to migrate or not, and if they would move the possible destinations they would select. There was a follow-up survey, conducted by telephone eight months after the first which found that 42 out of the 167 respondents actually migrated. In the research, reasons for moving and the reasons for the destination selection were ascertained from all the respondents who indicated a wish to move and the actual movers. Also, reasons for non-migration were elicited from the non-movers.

With regards to the reasons for not moving, McHugh (1985), found that the most dominant reasons were employment related and social ties. Social ties were identified as family and friends and affiliations to church and clubs. Other reasons included ownership of property and an amenities factor, defined as environmental, educational, and cultural. With respect to the reasons for moving, the analysis of the open-ended responses found that 40% were

employment reasons. A second group of reasons related to the stages in the life cycle. In particular, school related reasons such as attending school and graduation, accounted for 10-15%, while marriage, establishment of own household, separation and divorce, retirement, health and death of spouse, comprised 15-20% of the reasons.

In the analysis of the reasons for the destination selection, McHugh (1985), found that 31-44% of the responses could be categorized as employment related. As well, about one-third represented social ties. Finally, environmental amenities such as climate, healthful environment, attractive scenery, and recreation facilities, formed a third group of the reasons for the destination selection. It is obvious that the pattern of responses obtained by McHugh, especially the factor of environmental preference, are not likely to hold true for a survey for the present study which is from a developing country. Gustavus and Brown (1977), examined the migration decisions of a sample of 278 migrants in Columbus, Ohio in 1972. In this study, the authors focused on the analysis of the factors which influenced the migrants in their destination selection. They approached the problem in two stages. In the first stage, the migrants were asked to compare their new destination, Columbus with their former place of residence, and also with any other alternative locations they would prefer to select as possible destinations. The migrants had to consider the relative importance to them of certain local or place attributes such as public services and facilities. These attributes actually represented the

migrant's evaluation of their 'place utilities' or the attractive factors of a place. There were thirteen such local attributes of which schools, health care facilities, jobs, and housing were the most important influences on the migration decisions of the respondents. Factors which were considered least in importance were nearness to home and welfare payments. Urban amenities such as shopping facilities, recreation centres, and entertainment spots were also found to be unimportant in the migration decisions of the sample population.

The second stage of Gustavus and Brown's (1977), procedure involved the analysis of the responses given by the migrants to an open-ended question as to why they moved to Columbus. The analysis found that the most important consideration of the migrants was jobs, which was cited by nearly 35% of the respondents. The next important variable considered was the 'kind of people in Columbus', a factor mentioned by 27% of the sample. The authors explained that the factor of 'kind of people in Columbus' is in reality a reflection of the fact that the migration decision was influenced by the presence of friends and relatives in Columbus. They suggest that personal contact plays a crucial role in explaining the migrant's evaluation of potential destinations. This is so because the migrant may feel that personal contacts at the potential destination confirm the correctness of his perceptions of the attributes of a place and he will therefore have no problems of assimilation and adjustment.

Another study which provides evidence in support of the above

finding that jobs are of great importance in influencing destination selection by migrants, is that by Fields (1979). Utilizing data provided by the 1970 United States Census of Population, Fields (1979), analyzed the gross-migration among the Standard Metropolitan Statistical Areas. The model which was developed and tested was fashioned by Sjaastad's (1962), concept of migration as an individual's human capital investment. The dependent variable, migration rate, was related to real income; measures of turnover in the labour market (ie. new hires, quits, and layoffs); and also distance. The findings indicated that destinations with higher levels of real income were better able to attract migrants than those with lower incomes. Not surprisingly, distance was found to be negatively related to migration. Finally, the most important factor determining migration behaviour was found to be availability of jobs.

Clark and Ballard (1980), employed data provided by the Continuous Work History Sample of the Social Security Administration of the United States to examine out-migration from the Appalachia region between 1958 and 1975. The authors adopted a twofold operationalization of migration behaviour and subsequently formulated two models. The first determined the magnitude of out-migration from the Appalachians while the second model determined the destination of the out-migrants. In the first multiple regression equation, the dependent variable was the volume of out-migration from the Appalachia in six industry groups. The independent variables which referred to the characteristics of the

origin included employment growth, unemployment rate, and wage rates. The authors estimated their equations in ordinary least squares regression framework and found that the origin variables were significant determinants of out-migration. Employment opportunities emerged as the most important factor in out-migration.

The second stage of Clark and Ballard's (1980), analysis was the estimation of a destination model in which the dependent variable was out-migration from the Appalachia to a destination state. The independent variables emphasised the characteristics of the destination state. They were a gravity index ie. population divided by distance; employment growth, and an index of climate ie. average temperature. Findings from the destination equation were that the gravity index and the employment parameters significantly influenced migrants in their choice of destination. It was also found that distance had declined in importance in affecting destination selection. A good climate was likewise found to be an important place utility in the choice of a destination.

Clark and Ballard's (1980), finding that origin factors are important in out-migration decisions contradicts the evidence from previous research. For example, Lowry's (1966), multiple-regression analysis of U.S. Census data for 1950 and 1960 found that income and unemployment levels were important determinants of gross in-migration rates but not gross out-migration rates. These contradictory findings raise the issue of which are more important determinants of migration behaviour-origin factors or destination

factors? In other words, are the 'pushes' of economic adversity at the origin more important than the 'pulls' of economic opportunity at the place of destination?

Becker (1988), employing an econometric model to examine urban population growth in Africa pointed out that although 'pull' factors are given the greatest attention in the migration decision-making process in the developed and some developing countries, in the African situation 'push' factors are more crucial. Hirschman (1976), after analyzing urban trends in Peninsula Malaysia, arrived at a similar conclusion as Becker's (1988), that it is not the 'pull' forces of economic opportunities in cities that cause the growth of cities but rather the 'push' factors of rural poverty and overcrowding. Brown and Sanders (1981), made the important point that it is in the out-migration decision that the influence of 'push' factors become relevant. On the other hand, 'pull' forces are important in decisions to select a new destination ie. in-migration decisions.

Toney (1978), examined the destination selection made by a sample of 825 migrants in Rhode Island, United States. He employed both objective and subjective measures of economic and social factors which influenced the choice of destination. The objective indicator of the economic factor was population growth. The subjective social measures were the extent of family ties and previous residential experience at the destination. These subjective measures were provided by the responses to an open-ended question in the survey which asked the respondents why they moved

to the destination. These responses were categorized into economic and social for reasons such as "to change jobs, or to make money" and "to be near kin or friends" respectively. Toney (1978), found from his data analysis that 42.3% of the destinations were selected for economic reasons and only 18.3% were selected for social reasons.

Another finding from Toney's analysis was that 63% of the moves were to destinations where the migrants did not have any previous family residence, indicating that most moves were to destinations where no ties existed. It must be pointed out that this finding runs counter to the findings from the studies by Williams and McMillen (1980), and McHugh (1985), already noted that many migrants draw upon location-specific capital in the form of ties in the selection of destinations. However, Toney (1978), found that the choice of low population growth areas as destinations was more likely to be made by migrants who had some social ties at those destinations. Generally, family and social ties were more important to migrants who selected low population growth areas as destinations than to those migrants who preferred to choose destinations located in high population growth areas. Toney's (1978), finding that migrants move to destinations with high population growth rates without consideration of ties, is important in explaining migration behaviour. For instance, Perloff et al. (1960), pointed out that localities with attractive economic conditions could draw sizeable numbers of migrants from other localities. However, what was important in determining out-



migration from a locality suffering from economic distress was the proportion of the economically active population who were willing to leave to seek jobs elsewhere. Perloff et al. (1960), argued that this proportion was invariably determined by the personal characteristics of the residents of the locality such as their age and education.

The role of personal characteristics in explaining the differential behaviour of potential migrants cannot be overemphasized. For, a person's individual characteristics affect the way in which he evaluates his circumstances and hence, how he forms place utilities. Research findings support this view. Bach and Smith (1977), analyzed the out-migration decisions of a sample of 221 white residents of Durham, North Carolina in the United States. Two dependent variables were used. These were: expectations to migrate, and actual migration behaviour. These were operationalized as dichotomous dependent variables and related to nine background factors: viz, duration of residence, homeownership, objective ties to the community, subjective orientation toward the community, age, sex, education, income, and the presence or absence of children under eighteen years of age. Most of these independent variables were dummy coded ie. 1 or 0. The ordinary least squares multiple regression analysis found that all the background factors with the exception of sex had an influence on an individual's satisfaction with the community of residence. Furthermore, satisfaction with community, in turn, was found to be an important factor in predicting out-migration expectations. The variables

which were found to have direct effects on migration expectations were duration of residence, age, income, and sex.

A finding which is common to migration research is the selectivity of migration and this is often used to determine the characteristics of the migrants, and to evaluate the differences between migrants, non-migrants as well as return migrants. Browning and Feindt (1969), examined the characteristics of a sample of 1640 male migrants aged 21-60 years in Monterrey, Mexico in 1965. In order to compare the characteristics of the migrants with those of the non-migrants in the origin areas of the migrants, the authors relied on aggregate data provided by the Mexican 1940 and 1960 Censuses of Population. They found that the migrants had better educational levels and occupational statuses than the non-migrants. However, they also found that the positive selection of migrants had a tendency to decline over time. The most recent migrants had lower educational levels and inadequate skills and were more likely to be married.

This latter finding by Browning and Feindt (1969), is an interesting reflection of the changing migration patterns and behaviour in the developing countries. The deteriorating socio-economic conditions in these countries affect different people in varying degrees. It is reasonable to assert that generally it is the relatively poor individuals and families, and the lower ranks in the society who will suffer most from the economic hardships. And these are mostly the poorly educated, the unemployed, and the unskilled. It is these categories of people whose threshold levels

of adjustment to the stresses and imbalances in the socio-economic environment are so low that they will readily respond to the pushes of economic adversity and so out-migrate.

Bilsborrow et al. (1987), examined the out-migration decisions of 3,569 individuals aged 12-25 years in a sample of 3,427 rural Ecuadorian Sierra households. The authors pointed out that migration decisions were made in the prevailing institutional and structural conditions. These decisions were also influenced by the characteristics of the potential migrant and his or her household characteristics as well. Bilsborrow et al. (1987), therefore, developed a model which included individual level variables, household level factors, as well as contextual variables. They defined the dependent variable as a binary choice variable: to migrate or not to migrate from the rural area. Thus, the migrants included only those who selected urban destinations, with 1 indicating such choice and 0 otherwise. The independent variables were: age, education, marital status; land owned by the farm household; the number of adults in the household; and areal/contextual variables, distance, agricultural labour absorptive capacity of the area, size of the local urban labour market and households without electricity.

Bilsborrow et al. (1987), specified the relationship between their dependent and independent variables in a probit regression. Probit regression analysis and also logit regression analysis can be likened to the more popular ordinary least squares multiple regression framework. The logit and probit specifications are more

often employed when the dependent variable is operationalized as dichotomous, and, coded 1 or 0. As will be explained more fully later on in the model specification section of this study, logit transformation and also probit transformation are the monotonic transformations of probability such that the resulting variable is not confined to the arbitrary range 0-1 but rather it has the range minus infinity to infinity (Theil, 1971; Blalock, 1979).

Some of the findings from the analysis by Bilsborrow et al. (1987), run counter to the evidence from previous research. For instance, they found that the effect of age on migration was positive and significant. The authors explained that this result was due to the fact that they restricted the sample to the youth who were aged 12-25 years; and added that teenagers migrate less often than adults. The education variable was created as dummy variables and these produced negative and statistically significant coefficients for males. As well, in the case of females, they found that it was the least educated who were more prone to move. These findings led them to infer that for males, the propensity to migrate increased to a high point at the primary school level. After this point was surpassed, higher levels of education were associated with lower out-migration propensity. From this inference, they argued that the finding from studies employing the human capital approach to migration that education was a positive factor which influenced rural to urban migration was not correct. They claimed that it was the less educated who were more obliged to move because of their poor economic situation. It is interesting

to note that this aspect of Bilsborrow et al.'s (1987), study lends credence to the observations made about Browning and Feindt's (1969), findings already noted above.

Other findings from the study by Bilsborrow et al. (1987), were that marital status had a negative and significant influence on the out-migration of female daughters but did not have any such effect on males. With regards to the household level variables, it was found that the factor of land had a negative and significant effect on the out-migration of males. With respect to the community-level factors ie. the contextual variables, the findings were as follows: Distance had a negative and significant effect on out-migration; the availability of electricity in the community had a significantly negative influence on out-migration; the rural labour absorptive capacity and the factor of local urban labour market, had deterrent effects on out-migration. It was also found that an inverse relationship existed between land owned and out-migration for short distances, but this declined in intensity with greater distances.

Fogarty and Mehta (1982), examined the out-migration decisions of 810 individuals in a sample of 463 households in 17 villages near the city of Ahmedabad in India. The dependent variable used, migration status, was created as a dummy variable and coded: 1 if migrant and 0 if non-migrant. With regards to the non-migrant category, two subsets were created; viz, those who did not consider migrating at all and those who did consider migrating but did not actually migrate. The following were the independent variables

used: age, marital status, education income, landownership, occupation, distance, caste, and the development level of the village ie. whether the village is classified as developed or undeveloped. It should be noted that although the authors did not specifically mention it, these independent variables can be categorized into three main groups as in the case of the work by Bilsborrow et al. (1987). These three groups are: individual level variables; household level variables; and contextual variables. The logit regression analysis employed by Fogarty and Mehta (1982), found that individual characteristics which were positively related to migration were educational level, marital status, and occupation. It should be noted that the finding on the education variable contradicts the finding from Bilsborrow et al.'s (1987), study already reviewed above.

Turning to other findings from the study by Fogarty and Mehta, we find that one aspect of Bilsborrow et al.'s findings is corroborated. This relates to the finding that it was the poor, mostly agricultural labourers, and persons belonging to lower caste families who were more likely to consider out-migration. Fogarty and Mehta (1982), also found from their analysis that income had a negative association with migration; individuals or families considered migration only when they could not meet their threshold consumption preferences. Thus, it was the economically deprived persons who were more prone to consider migration. However, since migration is not costless, it was the economically better off among those who considered migration who could finance a move and hence

were more likely to implement their decision to migrate. Finally, those who considered migration but did not actually migrate did not have a contact person at the place of destination. This latter finding supports Gustavus and Brown's (1977) conclusion, already noted above, that personal contacts are crucial in destination selection.

Brown and Goetz (1987), utilized data provided by the 1971 Venezuelan Census of Population to examine out-migration among 65,994 economically active persons ie those aged 15 years and over and were employed. The dependent variable they used was migration status which was a dichotomous dependent variable, coded 1 if out-migrant and 0 if stayer. The independent variables were the individual's age, education, gender, and indices of development. The findings from the logistic regression analysis indicated that the probability of out-migration was inversely related to age, was positively associated with educational attainment, and was greater for females and for persons located in areas with more traditional socio-economic structures and higher levels of population pressure. This latter finding from Brown and Goetz's study, supports the contention that structural or contextual factors have significant influence on migration decisions and they should therefore be introduced as exogenous variables in models of migration behaviour.

A study of migration behaviour which does not analyze household level and contextual variables is that by Speare Jr. (1971). Speare examined the out-migration decisions of a sample of 691 Taiwanese males aged 23-42. The sample consisted of 321

migrants in Taichung City and 370 non-migrants from four counties which were the home origin areas of the migrants. Initially the sample of migrants interviewed in the survey was 480. However, in order to reduce the incidence of recall lapse, a time reference of two years was defined and only those who moved two years prior to the survey were included in the analysis. This reduced the migrant sample from 480 to 321. The dependent variable used by Speare was migration status which was created as a dichotomous dependent variable and coded 1 if migrant and 0 if non-migrant.

In his study, Speare (1971), developed and tested a model which was fashioned by the concept of migration as a form of an individual's human capital investment. Thus, he referred to the independent variables as cost-benefit variables. There were seven of these; namely, expected income, unemployment, source of information, cost of moving, homeownership, location of parents, and location of wife's parents. The dependent variable was migration status which Speare created as a dichotomous dependent variable with 1 for migrant and 0 for non-migrant. This dichotomous dependent variable was related to the cost-benefit variables in an ordinary least squares multiple regression framework.

After estimating the parameters of the model with the cost-benefit variables, Speare (1971), evaluated its success by introducing seven background variables which are known to influence migration behaviour. These were age, education, previous city residence, lived on farm, self-employment, number of brothers, and distance. The main findings from the analysis included the



following: All the seven cost-benefit variables had significant independent effects on migration, and together they explained 44.7% of the variance in the dependent variable. The variables with the strongest effect on migration were the location of parents, cost of moving, and unemployment; and, the effects of monetary factors was greater than the effect of non-monetary factors in influencing migration. Other findings were that the background variables influenced migration through the cost-benefit variables; age was negatively correlated with the probability of moving and distance also had a negative and significant effect on migration.

In discussing his findings, Speare rightly pointed out that potential migrants do not actually engage in a calculation of the costs and benefits of migration. As well, only a few people could make accurate guesses about the income they expected to earn at the place of destination. Furthermore, not many people could provide approximate estimates of the cost of moving and, for the non-migrants, most of them had not even given any thought to the idea of moving anywhere. It is probably because of these data inadequacies that Speare did not provide actual statistical tests of his hypotheses. Although it would be a useful exercise to attempt a replication of Speare's work, with the hindsight provided by his own concerns about the measurement of the data, it is only possible for the present study to adopt some aspects of his methodology. Data on the cost-benefit variables as used by Speare could not be collected in the survey for the present study. Thus, only relevant aspects of his study will be combined with insights

provided by the literature review to develop the framework for this study.

Caldwell (1969), conducted a rural-urban migration survey of Ghana in which the migrational behaviour of 2,367 households involving 16,943 individuals were examined. The analysis found that the most mobile population groups were the young males aged 15-34 years; that distance was a deterrence to migration; about 75% of the respondents gave economic reasons for migration-"to obtain jobs, money, consumer goods." In addition, the attractions of the town were availability of entertainment, better trading and shopping centres, and transport facilities; the cost of living and housing were higher in the towns. Village life was said to be advantageous because of the low cost of food and accommodation; but the disadvantages were the lack of jobs; social amenities and consumer goods. The major reasons for non-migration were found to be family responsibilities and the possession of farms in the villages.

Caldwell (1969), also found evidence which seem to support the concept of migration as a survival strategy adopted by households. When Caldwell classified rural households by apparent economic levels, he found that the proportion of households above average, average, and below average income containing adult members who had never migrated to the town was 59%, 69%, and 77% respectively. In other words, it was the richer households whose members were more likely to migrate. Caldwell (1969), explained this association in two ways: firstly that the migration of more

family members increased the income of rural households and secondly that more income enabled rural households to acquire education, and it is education which encouraged migration.

From the above literature review it can be said that migration, especially in the developing countries, takes place as a response to regional differentials in economic opportunities which are generated through the particular socio-economic development processes (Beals et al. 1967; Knight, 1972; King, 1978). However, the evidence shows that not everybody migrates; people respond differently to migration stimulating impulses (Morrison, 1971; London, 1986). Furthermore, the phenomenon of migration involves more than one decision and hence, more than one behaviour has to be explained. Thus, in order to gain a more comprehensive understanding of the underlying factors influencing migration behaviour, it is necessary to disaggregate the migration decision-making process into two stages (i) the out-migration decision and (ii) the criteria for the destination selection. It is when the migration decision is factored into two that the researcher, using survey data, is better able to investigate both migrants and non-migrants in the first stage of the analysis and examine the underlying factors motivating migration and non-migration. The approach also enables the researcher to focus exclusively on the migrants in the second stage which involves the identification and analysis of the factors influencing the destination selection by the migrants.

Furthermore, the above review of the literature also reveals

that there is an overriding need for survey research to demonstrate the empirical utility of the two-fold analytic approach at the micro-level. For, since migration involves the desires, intentions, expectations, and the predispositions of individuals with different demographic and socio-economic characteristics, it is a phenomenon which is not adequately explained with aggregate census data. Aggregate data leave unexplained the important question as to why some people move and others stay. This question is better addressed through surveys of both migrants and non-migrants to elicit their subjective ideas about their perceptions and evaluations of their own circumstances.

Lastly, it should be pointed out that the use of survey data to account for why people move and also why they do not, necessitates the use of a binary choice or a dichotomous variable, migration status, ie. whether one can be classified as a migrant or a non-migrant, as the dependent variable to be explained. This dichotomous dependent variable is conceptually more realistic than the conventional migration rate which is employed in studies using aggregate data and which has the tendency of neglecting the non-migration component. More often than not this dichotomous dependent variable is related to the exogenous variables in either logistic or probit regression analysis.

Thus, to summarize, the conceptual framework and the methodology for this study will draw upon the above literature review. Following the works of Fogarty and Mehta (1982), and Bilsborrow et al. (1987), we use migration status as a dichotomous

dependent variable; and, as independent variables individual level factors such as age, education, marital status, and the areal/contextual variable of distance. Furthermore, in line with the studies by Williams and McMillen (1980), Clark and Ballard (1980), and McHugh (1985), we operationalize the migration decision-making process as involving two stages and distinguish between reasons for moving and the reasons for destination selection. Finally, we adopt Fogarty and Mehta's (1982), and Bilsborrow et al. (1987), method by relating our dichotomous dependent variable to the independent variables in a logit analysis which is explained in the next chapter.

CHAPTER III  
METHODOLOGY

Proposed Theory, Model and Hypotheses

Theoretical Framework

Migration is such a complex, multidimensional and multidisciplinary subject that some scholars frown upon attempts to develop a single integrated theory to explain it (Chan, 1981; Addo, 1975b). In this context, Liaw (1986), has pointed out that "in migration research the strict adherence to one conceptualization to the exclusion of another is an unwise decision (1986: 228)." In view of Liaw's caution, the formulation of a comprehensive theoretical framework to analyze our survey data will draw upon some of the concepts and relevant aspects of the theories which have been developed to explain migration as a demographic behaviour.

One of the earliest attempts in this direction was by Ravenstein (1885), who adopted the gravity concept to postulate his "laws of migration" according to which migrants move from areas of low opportunity to areas of high opportunity. Distance is a factor which influences the choice of destination, with migrants moving to nearby towns and later towards large cities. He observed further that each stream of rural-urban migration produces a counter stream from the urban areas and that while males are more migratory than females, over short distances females dominate the migratory stream. According to him migration also accelerates transport and communication development and expands trade and

industry.

Ravenstein's (1885), first and fifth laws are the basis of the gravity model so popular with geographers. The first law states the idea that most migrants move over short distances, while the fifth law holds that long distance moves generally terminate in large metropolitan centres. The gravity model deriving from these ideas states that the numbers of migrants between two areas are directly proportional to the product of populations of the areas and are inversely proportional to the distance between them (Jones, 1981). This is the P/D hypothesis as proposed by Zipf (1946, 1949).

However, several versions and modifications of the gravity model have appeared in the literature. Stouffer (1940), argued that distance was not an important deterrent to migration and, proposed the "intervening opportunities" hypothesis that migration between two areas depended on the intervening opportunities between the two places. Stouffer (1960), broadened his concept so as to take account of what he termed "competing migrants". In other versions of the gravity model formulation, the relationship of migration to distance is described by a Pareto function (Morrill, 1963) thus:

$$F = aD^{-b}$$

where F indicates the flow of migrants

D indicates distance

a & b are constants

Studies employing the gravity model and its variants confirm the negative relationship between migration and distance (Hagerstrand, 1957; Olsson, 1965). It should be pointed out,

however, that in our literature review in the last chapter, we saw that Clark and Ballard (1980), using aggregate census data in a multiple regression framework, incorporated a gravity index and found that distance had declined in importance in influencing destination selection. However, it is not the purpose of the present study to employ the gravity model. nor is it one of our purposes to prove or disprove that model. Suffice it to say that scholars employing gravity models with aggregate census data are more interested in deriving macro-analytic models (Jones, 1981). Such models provide only aggregate explanations of migration flows and hence the subjective motivations of migrants have to be objectively deduced.

The school of thought whose ideas fashion our theoretical perspective argues for a micro-analytic approach to migration analysis. This approach is based on the conviction that migration is a decision-making process and, therefore, is largely a behavioural phenomenon. Thus, in order to understand migration we need to adopt a behavioural approach by conducting micro-level sample surveys and elicit from the migrants themselves the behavioural and personal factors important in their migration decisions. This approach is exemplified in the works of Rossi (1955), Lee (1966), Wolpert (1965), and Bilsborrow et al. (1984). We employ this approach and use the distance factor not in terms of the gravity model approach but rather in the sense used by Bilsborrow et al. (1987), ie. as a contextual variable which may or may not be a deterrent to migration depending upon how the



individual evaluates the perceived push factors.

Lee (1966), drawing upon Ravenstein's (1885), empirical generalizations, developed a very convenient theoretical framework for the study of migration behaviour. In his theory of migration, Lee classified the factors entering into the migration decision-making into 'pull' factors and 'push' factors or attractive forces and impulsive forces respectively, at both the origin and destination of the migrant with some intervening obstacles (such as distance or the cost of moving) between the two areas. Lee points out that the factors affect different people in different ways and, he also allows for the influence of individual differences in the perception and assessment of the factors by introducing a fourth set of factors ie. personal factors. According to Lee "personal sensitivities, intelligence and awareness of conditions elsewhere enter into the evaluation of the situation at the origin, and knowledge of the situation at the destination depended upon personal contacts or upon sources of information (1966:51)." The importance of sources of information and personal contacts in influencing destination selection has already been noted in the literature review above and hence we should expect to find that both these factors have a positive effect on migration.

It should be pointed out that the above push-pull polarity model is applied to migration selection and behaviour ranging along a continuum from total migration to non-migration (Peterson, 1958; Uhlenberg, 1973). Even more important, the contrast between origin and destination factors has no doubt, influenced the argument that

the migration decision actually involves more than one decision and hence more than one behaviour needs be explained. Thus, the suggestion that the migration decision-making process should be conceptualized as involving two stages: (i) to migrate or not to migrate from an origin, and (ii) the selection of a destination (Brown and Moore, 1970). In such a twofold framework, the origin and destination factors are of different importance to the migrants and the non-migrants who do not want to move out of the origin. Thus, an analysis of the choice of destination can focus only on the migrants.

Elsewhere, migration has been conceptualized as an individual's human capital investment. This theory proposed by Sjaastad (1962), treats the decision to migrate as an investment decision which involves costs and returns. The important idea is that the full benefit of migration is accrued over a stretch of time after migration. Thus, migration needs not be irrational if the immediate benefit enjoyed at the destination is less than the current benefit at the place of origin plus the financial and psychic costs of the move to the point of destination. Not only does this conceptualization of Sjaastad fit into Lee's general framework but also it is particularly helpful in explaining the inverse relationship between migration and the demographic factor of age. Research findings show that people who are most prone to migrate are the young adults (Zachariah, 1966). For, the young adults have a longer life expectancy, and so there can be a waiting period for the benefits of migration to be accrued over a longer

period of time; these persons also tend to have weak social ties at the place of origin and also few physical assets. Thus they invariably have lower moving costs and hence higher mobility. Connell et al. (1976), point out that "almost everywhere, migration concentrates extremely heavily on villagers aged 15-30 years (1976:39)."

Sjaastad's (1962), human investment theory posits that migration occurs in response to differential opportunities for earning income at different locations. It, therefore, predicts that the migration behaviour of the people who are more prone to migrate is largely motivated by employment oriented reasons. In this regard, there is a school of thought which argues that in many developing countries, migration is both a survival strategy and an upward social mobility strategy (Adepoju, 1977; Arizpe, 1982; Findley, 1987). With restricted economic opportunities in the rural areas, migration is actually a survival strategy adopted by the household to supplement its income. The household may sponsor migrants to work in the town with the hope that the migrant in turn will send back home money remittances to support the family. Thus, Caldwell (1969), in his survey of Ghana found that it was the richer households who had the greater number of migrant members away from the village and that money remittances from migrant members formed a highly significant proportion of the income of many households. Moreover such sponsored migrant members often returned home better off than they were before and then were in a better position to contribute to the household income.

Furthermore, migration in the developing countries is also used by individuals as a form of an upward social mobility strategy. The concentration of modern social and economic infrastructure in the urban areas of these countries mean that those persons who wish to rise up the socio-economic ladder have no option but to migrate to the cities (Addo, 1975; Preston, 1979; Todaro, 1969). We should therefore expect to find that most young migrants select their destination for job related reasons as confirmed by the evidence from the literature reviewed above.

A theoretical model of rural-urban migration which places primary emphasis on economic motivation of migration is that by Todaro (1979). The basic behavioural assumption of the Todaro model is that the potential migrant decides to move to the city because of the desire to maximize his\her "expected" income. The two economic factors involved in this decision are: (i) the existing urban-rural real wage differential and (ii) the probability of obtaining an urban job. A crucial shortcoming of the Todaro model is that it fails to recognize that most urban workers are employed in the so-called traditional sector. For instance, Cole and Sanders (1985), point out that the Todaro economic model is limited to explaining the movement of persons possessed of sufficient human capital to qualify them for modern sector employment. Furthermore, the Todaro model by emphasizing urban-rural real wage differential does not improve our understanding of the causes of non-mobility among a large proportion of the rural population (Adepoju, 1977).

The subject of non-mobility is often ignored in studies of migration. Yet a distinguishing characteristic of rural populations is the fact that a very large majority do not migrate. Hence the question "why don't they migrate?" (Goldstein, 1984). Peterson (1958), suggested that to understand the migration process, "sometimes the basic problem is not why people migrate but rather why they do not (1958:258)". It can be argued that a study of non-migrants can help promote a better understanding of migrants for if the reasons that keep people from moving are known, then the situation conducive to migration can be better understood and future migration flows can be better predicted.

An important point to emphasize at this stage is that all the foregoing concepts imply that migration is a behavioural response to some ecological constraints or opportunities (Shrestha, 1987). In this context, Wolpert (1965), developed the intriguing concept of "place utility" which is a measure of an individual's level of satisfaction or dissatisfaction with respect to an area. When the place utility of the present location is thought to be lower than that of a different location, then the individual will consider moving and subsequently decide to move. When this decision is arrived at, then the choice of destination comes to the fore.

The choice of destination is conceptualized as the result of a search process by the potential migrant within his 'action space'. According to Brown and Moore (1970), the concept of 'action space' defines the subset of all locations about which the potential migrant has some information. In this regard, Wolpert

(1965), points out that "information about prospects must somehow compensate for the absence of personal experience (1965:162)." It can be said that sources of information enable a potential migrant to focus his attention on specific potential alternative locations. In this respect, it is reasonable to assume that both these factors ie. information and personal knowledge, are positive influences on migration; and the lack of them must also negatively influence migration.

This latter idea ie. the personal knowledge of an area, can be translated into a form of 'tie'. Ties play a very special role in migration decisions, in fact in each of the two stages of the process ie. the decision whether or not to migrate and even more importantly, the decision as to which destination to choose. In the rural villages of the developing countries, for instance, it is a fact that the uneducated usually rely on social ties for information. With regards to the influence of 'ties' in destination selection, DaVanzo and Morrison (1978), developed the concept of 'location specific capital' which refers to all the factors that 'tie' a person to a particular place. Examples include personal knowledge of an area, property ownership, community ties, and close friendships. As King (1978), points out the presence of relatives and friends in a potential destination encourages migration to that area. All this and the evidence from the literature reviewed above lead to the expectation that the location of friends and relatives has a positive influence on the migrant's choice of destination.

The foregoing conceptualizations emphasize the freedom of the

individual to make personal decisions. However, there is another school of thought which argues that the causes of migration behaviour should focus not only on the characteristics of the potential migrant but also on his/her household characteristics as well as the areal or contextual factors (Bilsborrow et al., 1984). Thus, aspects of the socio-economic environment such as public services and facilities are said to enter into the migration decision (Findley, 1987). This is the 'amenities factor' the lack of which act as 'push' forces in out-migration decisions in the rural areas. On the other hand, their presence in the urban areas act as 'pull' forces in the choice of destination.

The theoretical basis for this study therefore highlights a framework which incorporates the following:

1. The need to examine individual level factors such as age, educational attainment, skill levels, and marital status characteristics of the migrants and the non-migrants in order to assess the extent to which such variables differentially affect the propensity to migrate or not to migrate.
2. The necessity of taking into consideration the subjective reasons of the migrants and the non-migrants for moving and not moving respectively, as representing the motivational factors which promote or hinder migration.
3. The importance of operationalizing the migration decision as a two-stage process: (i) the out-migration decision and (ii) the choice of destination.

In the first stage, we adopt an approach which is similar to

some of the studies reviewed above; in particular, the works of Speare Jr. (1971), and Clark and Ballard (1980). We look at both the migrants and the non-migrants and examine the factors which differentially affect their migration propensities. This involves the estimation of an out-migration model. In the second stage, we follow the approach which was used by Williams and McMillen (1980), and also by Gustavus and Brown (1977), and focus only on the migrants and analyze their responses to the open-ended question about their choice of Koforidua town as a destination. In this stage, we also provide an analysis of the reasons for moving and not moving which were obtained in the survey.

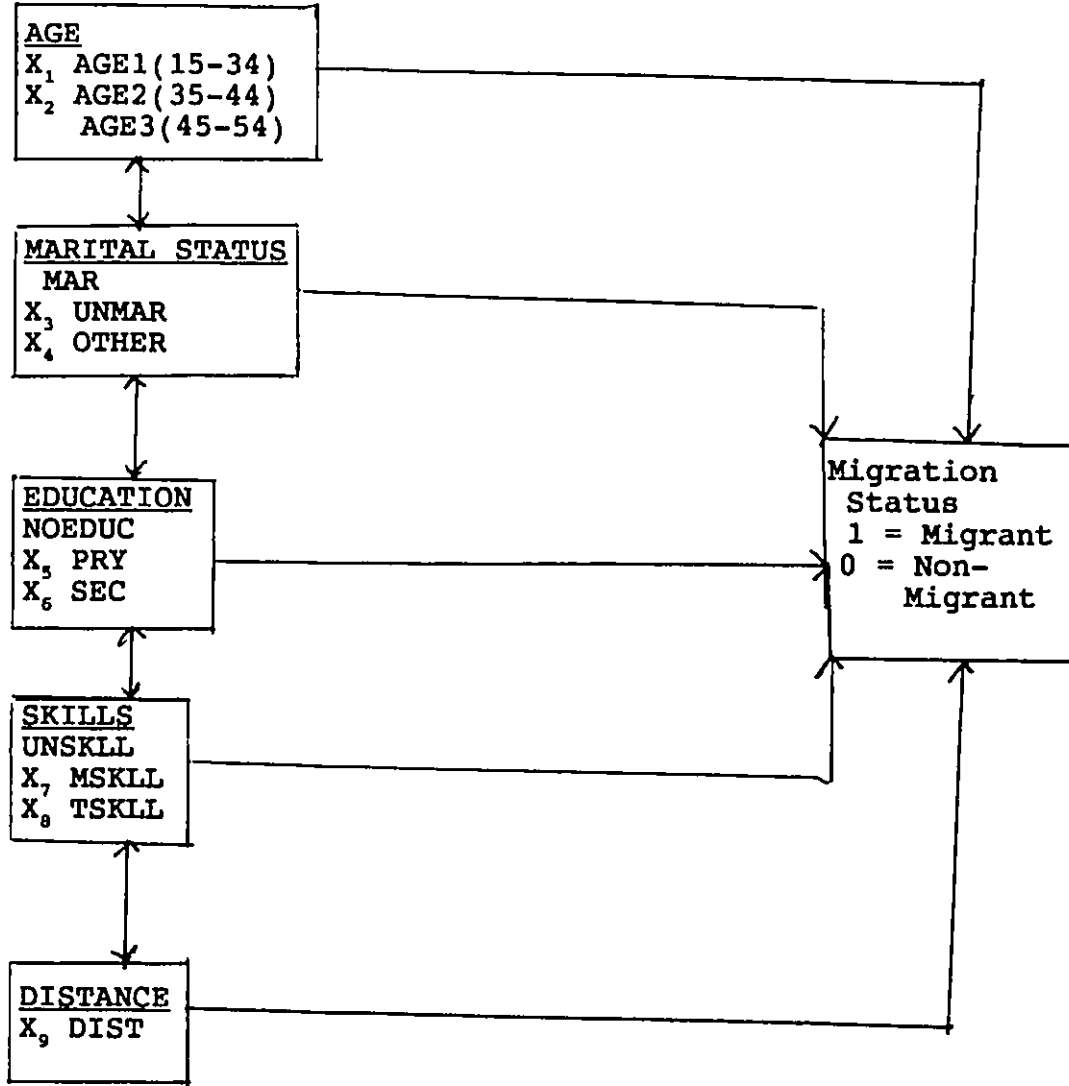
#### The out-migration model

In order to address the questions as to who are the migrants and the non-migrants and why some people move out of the survey villages while others stay, it is necessary to consider the relative importance of some of the factors which, a review of the literature indicates, are potentially related to migration. However, it is not possible to consider all the relevant factors within the scope of this study as already stated. It is necessary, therefore, to be selective. Thus, in the survey comparable data on five migration predictors were collected for migrants and non-migrants. Following insights drawn from the literature review, these variables are grouped into three main categories: viz, (a) demographic variables-age and marital status; (b) socio-economic variables-education, and skills; and (c) road distance-as a



contextual variable. It is these three groups of factors which serve as the explanatory variables in the a priori model under investigation. The expected relationships between these exogenous variables and the dependent variable, migration status, are diagrammed below in our a priori model.

A Priori Model



### Model Specification

Based upon the theoretical framework formulated above and following insights from the literature review, the model proposed to explain the differentials in the migration propensities among the survey population, includes a selected number of the characteristics of the migrants and the non-migrants. It is assumed that these characteristics influence, to a very large extent, the migration intentions, expectations, and subsequent behaviour of an individual. We introduce the variable distance to take account of the out-of-pocket costs of moving and other factors which may vary with distance such as information. Thus, the decision to migrate or not to migrate is assumed to be a function of the characteristics of the individual, and also the factor of distance. The relationships in the estimation model for this study are as posited in the a priori model above and may be represented by the function:

$$M = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, e)$$

where M is the dependent variable, migration status, created as a dummy variable and operationalized below.

$X_1, X_2, \dots, X_9$  are the independent variables specified in the a priori model above and defined below.

e is the random disturbance or error term.

### Logistic Regression

In the migration function specified above we have a dichotomous dependent variable which is coded 1 for migrant and 0 for non-migrant. Evidence from the literature suggests that it will not be appropriate to employ the conventional regression model and estimate a linear probability function for the dependent variable, migration status, using the ordinary least squares (OLS) procedure. This is so because in situations where the dependent variable is a dichotomous one, the OLS estimates of the regression coefficients are known to be inefficient (Theil, 1971; Blalock, 1979; Wrigley, 1985). The literature shows that if the OLS procedure is used, problems arise because the residual or error term does not satisfy the classical assumptions of the regression model.

In the first place, since the dependent variable,  $M$ , takes on only two values 0 or 1, it follows that the error term,  $e$ , also takes only two values. The error term,  $e$ , is therefore not normally distributed but has a discrete distribution. Thus, the OLS assumption that  $e$  is normally distributed is violated.

A further problem in estimating a linear probability function for a dichotomous dependent variable is that since there are only two possible values of the error term, then the expected value of  $e$ ,  $E(e)$ , is not equal to zero and therefore the OLS assumption of zero mean,  $E(e)=0$ , is violated.

With regards to the variance of the error term,  $\text{var}(e)$ , it should be pointed out that because  $e$  has two discrete probabilities of occurrence, then  $\text{var}(e)$  is not a constant but depends on the

values of the independent variable. In this case, we say that the disturbances are heteroscedastic and hence the OLS assumption of constant error variance or homoscedasticity is violated. Thus, the OLS estimates of the regression coefficients ( $\beta$ s) will not be normally distributed and, the variance of  $b$  will be biased so that the  $t$ -test of significance cannot apply (Theil, 1971; Wrigley, 1985). The  $t$ -test cannot be used because the  $t$  distribution assumes a normal distribution.

Lastly, a further problem is that there is no guarantee that the predicted probabilities of the dependent variable,  $M$ , will lie in the confined range of 0-1. In fact it is suggested that the predicted values of  $M$ , may exceed either of the limiting values of 0 or 1 (Blalock, 1979; Theil, 1971; Wrigley, 1985).

One way of avoiding all the above difficulties is to apply a monotonic transformation to the probability ( $P$ ), or in our case, ( $M$ ), in such a way that when  $P$  increases from 0 to 1, its transform increases from minus infinity to infinity so as to avoid the problem of a finite range (Theil, 1971; Blalock, 1979). One such transformation is the logit transformation which is the preferred technique used in this study. It achieves the transformation by the use of the natural log to the base  $e$ . Another transformation is probit, which is said to be a transformation of probability based on the cumulative probability density function of the normal curve. However, probit regression is said to give approximately the same results as the logit regression (Blalock, 1979; Wrigley, 1985).

In our binary logit model, the probability,  $P$ , that a

respondent with a given set of characteristics (ie. given the independent variables) will move (ie. being migrant), is given by

$P = \exp(a+b_1X_1+b_2X_2+\dots+b_9X_9) / 1 + \exp(a+b_1X_1+b_2X_2+\dots+b_9X_9)$  and the probability of not moving,  $1-P$ , (ie. being non-migrant) is given by

$$1-P = 1 / 1 + \exp(a+b_1X_1+b_2X_2+\dots+b_9X_9)$$

where  $P$  and  $1-P$  are as defined above.

$a$  is a constant

$b_1, b_2, \dots, b_9$  are the regression coefficients.

$X_1, X_2, \dots, X_9$  are the independent variables.

In the terminology of logistic regression analysis, we have to think of probability in terms of the odds in favour of moving.  $[P/(1-P)]$  describes the odds in favour of moving and is called the logit of a move. The coefficients of the logistic regression thus measure the change in the log of the odds,  $(P/1-P)$ , of moving as a result of a unit change in the explanatory variables (Theil, 1971). In situations where the data are coded 0 and 1 as is done in this study, the technique produces a separate coefficient for each category of a given variable. A positive coefficient indicates that the odds are increased for those in the category, relative to the mean, while a negative coefficient indicates that the odds are decreased for those in the category (Landale and Scott, 1985).

## Definition of Variables and Formulation of Hypotheses

### Operationalizations

Before we define our variables and formulate the hypotheses to be tested, it is necessary to operationalize certain key concepts used in the study so as to facilitate a clear understanding of the analysis.

### Time Reference Period

The operational definition of migration demands that we specify the period of time within which a move to another geographical location, involving a change of residence can qualify as migration. This is necessary because in Ghana and many other developing countries, rural folks engage in a variety of geographical mobility such as daily commuting to farms, seasonal migrations to farm villages, periodic residences in towns for social functions, and also circulation between village, market or town for both economic and non-economic reasons. All these migratory patterns have the tendency of concealing the reality of migration and, particularly non-migration.

For the purposes of this study, therefore, we need to define a time interval which is small enough to ensure that any gross changes in the characteristics of the migrants are highly restricted so that they are still comparable to the non-migrants whom they left behind in their home origins. A migration interval of six months is, therefore, here defined as appropriate for this purpose. In line with the literature review, we use this time

criterion and exclude from the analysis all those migrants who are found to have resided in the destination for more than six months. Another reason for excluding those migrants who did not meet the six months criterion is that it is known that as the migration interval increases, there is a corresponding increase in memory gaps about the really felt reasons for migration. Migrants who suffer recall lapse often tend to rationalize their reasons for moving.

#### Age Limit

Following insights from the literature review, the analysis is limited to males aged 15-54 years. The lower limit of the age interval is fixed at 15 years because below age 15 much geographical mobility is involuntary. For instance, children have to accompany their parents when the latter are moving. The upper age limit is fixed at 54 years because the literature documents the fact that the age profile of migration tapers and drops off at the advanced ages. Also, beyond age 54 much of the noticeable population migration can be classified as elderly migration (Liaw, 1981) which is a subject not considered in this study.

#### Household

A household is defined as an individual or group of people either kin or non-kin who share one residential unit and who eat from the same pot or who share food communally.



### Migration

Migration is defined as residence outside the two selected villages and in the destination town, Koforidua, for a minimum period of six months before the time of the survey.

### Mobility

Mobility is defined as movement over space from one geographical unit, such as a village or town, to another and involving a change of residence for a minimum period of six months prior to the time of the survey. In this study mobility and migration are used synonymously.

### The Dependent Variable

In our binary logit model the variable to be explained is migration behaviour which can be defined as the outcome of a migration decision ie. actual movement to take residence in the destination or non-migration. Thus, if a person remained in the survey villages six months prior to the survey and also has never before migrated to take residence elsewhere for the specified time period of six months, he is considered as a non-migrant. This definition at once excludes return migrants. On the other hand, persons who moved to the destination, Koforidua town, within the specified time period are classified as migrants. Thus, for convenience, we use the term migration status ie. whether or not a respondent is a migrant or non-migrant. This is a dichotomous dependent variable or a binary choice variable and it is similar

to that encountered in the literature review. It allows the examination of the differences in the probability of migration. It is coded:

1 = Migrant

0 = Non-migrant

Independent Variables and Hypotheses

A list of the independent variables used in the logit regression equation is provided in Table 1.

Table 1  
Measures of Variables

<u>Variable</u>	<u>Indicator</u>	
	1	0
X <sub>1</sub> AGE1	If aged 15-34	Otherwise
X <sub>2</sub> AGE2	If aged 35-44	Otherwise
X <sub>3</sub> UNMAR	If unmarried	Otherwise
X <sub>4</sub> OTHER	If divorced, separated or widowed	Otherwise
X <sub>5</sub> PRY	If primary education	Otherwise
X <sub>6</sub> SEC	If secondary education	Otherwise
X <sub>7</sub> MSKLL	If modern skill	Otherwise
X <sub>8</sub> TSKLL	If traditional skill	Otherwise
X <sub>9</sub> DIST	If distance <50 km	Otherwise

## Age

Age is defined here as the number of completed years of a respondent. In line with insights drawn from the literature review, we restrict our sample to male migrants and non-migrants aged 15-54 years. A consistent finding in migration research in general and also from the literature reviewed above is that there is a decline in migration propensity with advancing age. It is argued that the young adults are more prone to migrate than the older age groups because the young adults have a longer life expectancy ahead of them and can therefore invest in migration which according to the human capital approach involves benefits, expected to accrue over a certain stretch of time. In Ghana, Caldwell (1969), found that young males 15-34 years are the most mobile. In India, Connell et al.'s (1976), empirical evidence shows that it is persons in the 15-30 age group who are most prone to migrate. The fact is that persons in the older age groups with a shorter period of life ahead do not deem it fit to undertake a venture the benefits of which may not be derived in their life-time. Some scholars also argue that younger persons have weaker ties to their community and that ties and the propensity to migrate are inversely related (Harbison, 1981). Thus, the hypothesis to be derived from our theoretical perspective is that age is a significant variable in the logistic model proposed to be tested. The expectation is for a negative sign for the coefficients of the age variables. Age is measured on the interval scale and is classified into three age groups, 25-34, 35-44, and 45-54. In order to capture the effect of age on migration,

we create two dummy variables for the regression equation viz, (a) AGE1(15-34) and (b) AGE2(35-44). AGE3(45-54) is the omitted category. We have two dummy variables for the three age categories because of the need to avoid perfect multicollinearity. It is suggested that where there are J categories we have to create J-1 dummy variables (Lewis-Beck, 1980).

### Marital Status

Previous research findings and evidence from the literature reviewed above show that unmarried individuals are more likely to migrate than the married persons. This needs a little bit of qualification however. For, there are some isolated research findings which contradict this assertion. For instance, in Bilsborrow et al.'s (1987), study it was found that being married negatively influenced the migration of females but not the migration of males. Thus, a consideration of migration propensities by sex may reveal differences between the sexes. However, following insights drawn from the literature reviewed above, we limit the analysis to male heads of households. If we narrow our focus on the males we can argue that unmarried individuals are not as encumbered as the married especially those who have children to care for.

Furthermore, the cost of undertaking a move is higher for a married person than for an unmarried fellow. For, the addition of a dependant child in the family will increase the cost of moving for the married person. Moreover, many individuals may also not be willing to leave their spouses and children and migrate. All this

point to a reduced probability of migration for the married. Thus, it appears reasonable to hypothesize that marital status is a variable which contributes to differences in migration propensities; and it is therefore a significant variable in our estimation model. Marital status is trichotomized into MAR, UNMAR, and OTHER the last two of which are used as the dummy variables in the regression equation with MAR as the omitted category.

### Education

Evidence from previous research indicates that the better educated people in a community are more likely to migrate than the less educated. It is argued that education promotes migration because it improves a person's ability to obtain and process information and, therefore, leads to the expansion in the awareness about alternative opportunities in different geographical locations. In this way education can be said to increase the employability of an individual. Furthermore, education also leads to the acquisition of knowledge and values which enable a person to sever social ties at a particular locality and at the same time be able to establish such ties elsewhere (Greenwood, 1975). For instance, it is the better educated who are easily able to break with traditional social ties and village bonds with impunity.

It is probable that the views expressed above represent the conventional research finding. For, evidence from the literature review seems to indicate that there are instances where the positive role of education is not tenable. The finding from

Bilsborrow et al.'s (1987) study reviewed above is an example of this. However, since Bilsborrow et al.'s finding appears to be an isolated case we shall agree with the overwhelming conclusion that education facilitates geographical mobility. It must also be noted that elsewhere, some writers have argued that it is a plausible assumption that the possession of education actually increases the economic benefits to be gained from rural to urban migration (Addo, 1975b; Mabogunje, 1975). There are two main reasons for this contention. Firstly, in Ghana and many African countries, the disparity in income by educational levels is very wide. Secondly, the distribution of national resources and governmental development efforts is such that almost all the jobs which require at least a middle school education are disproportionately concentrated in the towns.

The survey data indicate that it is possible to trichotomize the education variable into (a) NOEDUC, (b) PRY, and (c) SEC. We use dummy variables PRY and SEC in the regression. The hypothesis is that the lack of education should reduce the probability of migration while the possession of some education should have the opposite effect. Education is, therefore, a significant variable in the proposed model.

### Skilled Trades

Skills as a variable is defined as the particular techniques or trades which an individual has learnt. It is different from educational attainment and can be acquired irrespective of whether

the individual has formal schooling or not. In the survey villages under consideration, and even more generally in many African countries, skills are particularly important since they enable individuals to obtain their means of livelihood. Examples of such skills are: village crafts such as pottery, weaving, basket making and cane chair making. Others are black smiting, carpentry, tailoring, masonry and bicycle repairs.

It can be argued, and quite rightly too, that a skill, like education, is a kind of a resource and reward which can either promote or retard migration impulses. For, many skilled persons and craftsmen, often set up their own small businesses as self-employed persons. It is pointed out elsewhere that self-employed persons usually establish a set of clientele upon whom they rely for their livelihood. Since migration results in the loss of this clientele and the necessity of establishing a new one in an unfamiliar location, it is reasonable to postulate that skilled individuals will be less prone to migrate (Sandefur and Scott, 1981). This may explain the empirical observation that it is usually the unskilled youth who flock to the cities of the less developed countries and into unemployment.

It must be noted also that since the attainment of political independence from the British colonial government in 1957, the various national governments have tried to develop the rural areas through the implementation of rural development programs (Bortei-Doku, 1974). Such programs have resulted in the siting of small scale industries in the rural areas. Examples include such rural

industries as soap making at Daamang near Kade and other agricultural schemes such as the oil palm project at Kumanin village (Brown, 1974). All these rural industries and projects tend to attract some of the rural folks who possess some skills. We hypothesize that the factor of skills is a significant variable in the model proposed to be tested in this study. The skill variable is also trichotomized into (a) UNSKLL, (b) MSKLL (ie. modern skills) and (c) TSKLL (ie. traditional skills).

#### Distance

A factor which is of special interest to geographers is distance and this is not surprising in view of their traditional concern with spatial problems. Previous research findings show that distance has a negative relationship with migration. In particular, studies employing gravity models document the negative effect of distance on migration (Olsson, 1965; Rogers, 1967). However, as already pointed out it is not the purpose of this study to utilize the gravity model. Our theoretical perspective is fashioned by the behavioural approach and so we use micro-level survey data to analyze migration behaviour. Thus, the distance factor enters into our analysis as a contextual variable as used by Bilsborrow et al. (1987) and also Fogarty and Mehta (1982).

It is obvious that there are certain costs involved in moving. These can be transportation costs as well as the psychic cost of leaving a familiar place of residence for an unfamiliar location. It is likely for these costs to increase when long distances are



involved. Thus, findings from the works of Beals et al. (1967) and Caldwell (1969) from Ghana; Connell et al. (1976) from India, and Bilsborrow et al. (1987) from Ecuador indicate an inverse relationship between migration and distance. It is, therefore, hypothesized in this study that distance is a significant factor in the model to be tested.

#### Data Sources

The basic data for this study are derived from responses to questionnaire items and interviews in two villages, Abiriw and Avume, and in an urban town, Koforidua, in July and August 1988. The purpose of the surveys in the villages was to interview non-migrants so as to obtain information about their characteristics and their attitudes towards the phenomenon of migration; and also to determine the destination of the majority of the out-migrants from the villages. Thus, another survey was launched in the town, Koforidua, when it was known from the interviews that, that town is the most popular destination of the majority of the migrants moving out of these two villages. This second survey was designed to interview migrants at the destination, Koforidua, in order to determine their characteristics, motivations for migration, and why they opted to select this particular town as a destination instead of some other place.

Two types of questionnaires were designed for the purposes of the surveys. There was a non-migrant questionnaire which was administered to the non-migrant respondents in the two villages.

A second interview schedule was designed to survey the migrants at Koforidua, the destination. In all cases the heads of the households were interviewed. In the absence of the head, his spouse or the most senior member of the household was administered the interview schedule. It must be pointed out however, that although the questionnaire is a household interview schedule, in this study we are concerned with individual migration and not the collective behaviour of the household. Thus, the analysis focuses on the individual male heads of households aged 15-54.

The questionnaires were designed to gather information about the demographic, socio-economic and other related characteristics of respondents and other household members. Some of the items include age, sex, marital status, education, ethnicity, and birth place. Other questions probed the future mobility intentions; the channels and flows of information influencing the behaviour of the migrants; rural-urban links as well as the perceived role of the migration phenomenon. It must be pointed out here that only those aspects of the survey questionnaire data which are deemed relevant for the objectives of this study as outlined previously are employed in the analysis. The questionnaires are included as Appendix.

### Sampling Design

In all the survey locations the method of sampling adopted was simple random sampling. In order to obtain an unambiguous sampling frame, a physical count of all the housing structures in

each survey location was made to prepare a list. In the two selected villages the house listing produced 114 structures at Abiriw and at Avume 86. The selection of sampling units was done by the use of a table of random numbers. 50 households were selected for interview by this procedure in each village for a total of 100. The administration of the interview schedules was facilitated by the hiring of four interviewers for the purpose.

Turning to the survey at Koforidua, the destination of the out-migrants from the two villages, it needs be noted that Adepoju (1977), has rightly suggested that migration surveys in the towns of West Africa are facilitated by the typical residential pattern of these towns. This consists of native quarters, migrant zones and relatively modern residential quarters for government workers and the elite. Thus, the researcher only needs to concentrate on the migrant quarters if the interest is in migrants only. In the course of the interviewing in the villages, the respondents were asked to tell us not only the destination of the out-migrants but also the specific section of the town where these absentee migrant members could be located. It should be pointed out however, that no attempt was made to obtain the actual addresses of the out-migrant members since it was considered impracticable to undertake a tracer survey of the migrants from the villages. This was because of the limited time and lack of funds for the research.

From the interviews with the non-migrants in the two villages, Abiriw and Avume, we were able to identify the main sections of Koforidua town where the out-migrants are located. Migrants from

Abiriw are to be found at Betom while those from Avume are located at Anlo Town. A point to note here is that in Ghana and many other developing countries, migrants from villages tend to settle in those sections of the towns and cities where members of their tribal groups are found. In many of these towns and cities, therefore, the migrant zones are named after the tribal group living in the area. For instance, in our particular situation, that section of Koforidua town called Anlo Town is named after the Ewe tribe who live in that area and who are called in the local dialect Anlo.

Based upon the information received during the village surveys, the decision was made to launch the migrant survey at Betom and Anlo Town sections of Koforidua town. The sampling procedure consisted of the adoption of simple random sampling to select the sampling units. For this purpose, a sampling frame was constructed. This consisted of a listing of all the housing structures in the two areas separately. At Anlo Town, 125 sampling units were listed and at Betom 147. It was decided to draw samples of size 50 from each of the two areas for a total of 100. A table of random numbers was used to select the sampling units in each area. Four interviewers were hired to administer the interview schedules in the two areas.

Overall, therefore, a total of 200 households were selected for the administration of the interview schedules, 100 in the two villages and 100 in the town, Koforidua.

2. The population data relevant for the study are collected

from secondary sources, mainly the published Population Census statistics of Ghana for 1970. As already pointed out the results of the latest census in 1984 have not been officially published.

### Analysis of Data

#### Sample Size

As already pointed out we adopt a time reference period of six months to define migration. Also following the work of Speare Jr. (1971), we limit our analysis to males aged 15-54 years. Thus, going by the six months time interval and the age-sex specification, our migrant sample reduces from 100 to 63 while the non-migrant sample also reduces from 100 to 84 for a total sample size of 147.

#### Data Processing

After editing the filled-in questionnaires, the information will be coded for computer analysis.

#### Analysis

In line with the two stage analytic approach of operationalizing the migration decision-making process, the approach adopted in this study has two interrelated, but separate stages. The first stage of the analysis involves the use of SAS Computer Package Program with the method of maximum likelihood estimation (MLE) to estimate the parameters of the logit model. We use the MLE method because where data on individual observations

are available, it is the preferred technique of parameter estimation (Wrigley, 1980). The method of MLE chooses as estimates those values for the parameters which make the data most probable ie. those parameter values which imply a large probability of the sample (O'Brien and Garcia, 1971; Theil, 1971). The student's t-test will be used to determine whether the hypothetical associations are statistically significant or are merely due to chance occurrences.

#### Motivations for non-migration and migration and destination selection

Given stage one of the approach adopted in this study, ie. the estimation of the logit model explaining the differences in the propensity to migrate, the second stage of the analysis involves a descriptive analysis of open-ended responses to questionnaire items in order to (i) find out the factors underlying the migrant's and non-migrant's motivations to migrate or not to migrate; and (ii) identify the factors which influence the migrants in their choice of Koforidua as a destination.

CHAPTER IV  
ANALYSIS AND RESULTS

In this chapter we provide an analysis of our survey data and present a discussion of the results. As pointed out earlier, the analysis proceeds in two main stages. In stage one, we develop a logit model to help explain out-migration from the survey villages. Stage two is a descriptive analysis of open-ended responses to questionnaire items on the reasons for migration and non-migration and the destination selection. Before stage one, however, we offer a preliminary discussion of the survey population.

The Survey Population

As pointed out in the previous chapter this study deals with individual migration rather than the collective behaviour of household members. It is obvious that heads of household are the individuals who are more likely to undertake voluntary migrations since they can be assumed to be more independent than any other household member. Thus, the analysis presented here refers to the heads of household who are males and who were aged 15-54 at the time of the survey. These heads of household are, therefore, described as our survey population.

1. Migration Status

We use the place of birth criterion for delineating migration and classify our survey population into migrants and non-migrants.

It has already been noted that the migrants were enumerated in the town, Koforidua, and the non-migrants in the villages. Going by our age-sex specification and the six months migration interval, 59% of the migrants and 56% of the non-migrants came from the cash cropping village. On the other hand 41% of the migrants and 44% of the non-migrants originated from the subsistence cropping village (Table 2).

Table 2  
Place of birth of heads of households  
by migration status (In percentages)

Place of birth/ Village type	Migration status	
	Migrant	Non-migrant
Cashcropping	58.7	56.0
Subsistence cropping	41.3	44.0
Total %	100	100
N	63	84

## 2. Age

In Table 3 we present an analysis of the age composition of the survey population. It can be seen that the population age distribution shows marked variations by migration status. The age structure of the non-migrants is relatively older than that of the migrants with 54% and 21% aged 45-54 respectively. While 11% of the



migrants were found in the lowest age range 15-24, only 1% of the non-migrants was in that category.

Table 3  
Age composition of survey population  
by migration status (In percentages)

<u>Age Group</u>	<u>Migration status</u>	
	<u>Migrant</u>	<u>Non-migrant</u>
15-24	11.1	1.2
25-34	38.1	8.3
35-44	30.2	36.9
45-54	20.6	53.6
<u>Total %</u>	<u>100</u>	<u>100</u>
<u>N</u>	<u>63</u>	<u>84</u>

### 3. Marital Status

Data relating to the marital status composition of the survey population is presented in Table 4. The table shows that the two most important marital status categories are the married and the single (in terms of absolute size). About 40% of the migrants and 83% of the non-migrants were married. On the other hand while as much as 44.4% of the migrants were single only a low 1.2% of the non-migrants was single. Very small proportions are divorced, separated or widowed. Table 4 shows that more non-migrants (6.0%) than migrants (3.2%) are divorced. However, more migrants (7.9%)

than non-migrants (2.4%) are separated. The much older age structure of non-migrants than migrants (Table 3) is also indicated in the proportion widowed; 7.1% for non-migrants and 4.8% for migrants.

Table 4

Marital status composition of survey population  
classified by migration status (In percentages)

Marital status	Migration status	
	Migrant	Non-migrant
Married	39.7	83.3
Single	44.4	1.2
Divorced	3.2	6.0
Separated	7.9	2.4
Widowed	4.8	7.1
Total %	100	100
N	63	84

#### 4. Education

71% of the non-migrants in our survey have had no schooling compared to 14% of the migrants. On the other hand a higher proportion of migrants (about 43%) than non-migrants (about 23%) have had primary education (Table 5). More migrants (32%) than non-migrants (5%) have had secondary education. Lastly, while 11% of the migrants have had post secondary education, only 1% of the non-

migrant has acquired that level of education.

Table 5  
Educational status of survey population  
by migration status (In percentages)

Educational status	Migration status	
	Migrant	Non-migrant
None	14.3	71.4
Primary	42.9	22.6
Secondary	31.7	4.8
Post-secondary	11.1	1.2
<u>Total %</u>	<u>100</u>	<u>100</u>
<u>N</u>	<u>63</u>	<u>84</u>

### 5. Occupation

The occupational classification of the survey population (Table 6) refers to the occupations of the non-migrants at the time of the survey while the pre-migration occupations of the migrants when they were in the survey villages are reported. Table 6 indicates that farming is the major occupation, engaging about 92% of the non-migrants while 52% of the migrants were also farmers at the time of the survey. Differences in occupational structures can be observed between migrants and non-migrants. There is a higher proportion of traders among migrants (14.3%) than among non-migrants (4.8%). The proportion of non-migrants classified as

professional, technical and clerical is low (1.2%) compared to the migrants (16%).

Table 6

Occupational groups of survey population  
classified by migration status (In percentages)

<u>Occupational</u> <u>Group</u>	<u>Migration status</u>	
	<u>Migrant</u>	<u>Non-migrant</u>
Farming/Fishing	52.3	91.7
Trading	14.3	4.8
Services	9.5	2.4
Professional/ Clerical	15.9	1.2
<u>Unemployed</u>	<u>7.9</u>	<u>0.0</u>
<u>Total %</u>	<u>100</u>	<u>100</u>
<u>N</u>	<u>63</u>	<u>84</u>

The observed differences by migration status with regard to occupation may be explained by the factor of educational attainment. For the educational levels of the survey population show that the migrants have higher educational statuses than the non-migrants (Table 5) and it is known that individuals with higher educational levels are less willing to take to farming.

A consideration of the post-migration occupational changes of the migrants indicates that most of them were occupationally

mobile. In fact, soon after migration they underwent a very rapid occupational transformation (Table 7).

Table 7

Migrants' Post-migration occupational changes  
(In percentages)

<u>Occupational Group</u>	<u>Pre-migration</u>	<u>Post-migration</u>
Farming/Fishing	52.3	0.0
Trading	14.3	47.6
Services	9.5	25.4
Professional/ Clerical	15.9	17.5
<u>Unemployed</u>	<u>7.9</u>	<u>9.5</u>
<u>Total %</u>	<u>100</u>	<u>100</u>
<u>N</u>	<u>63</u>	<u>84</u>

The majority of the migrants found jobs as traders (48%) while the services employed 25% and the professions 17%. Only a paltry 9% reported that they were unemployed at the time of the survey. Not surprisingly, most of these findings about the characteristics of our survey population corroborate Lall's (1986) empirical findings from his study of Chandigarh in India which is also a developing country like Ghana.

## 6. Skilled Trades

In order that some meaningful analysis can be made of the factor of skilled trades, the respondents were classified into three main groups; viz, those with no skills, those with modern skills such as mechanics, welding, and rubber stamp making; and those with traditional skills such as weaving, black smithing, and basket making (Table 8).

Table 8  
Skilled trades of survey population classified  
by migration status (In percentages)

<u>Type of skill</u>	<u>Migration status</u>	
	<u>Migrant</u>	<u>Non-migrant</u>
None	63.5	44.0
Modern skills	31.7	31.0
Traditional skills	4.8	25.0
<u>Total %</u>	<u>100</u>	<u>100</u>
<u>N</u>	<u>63</u>	<u>84</u>

More migrants (about 64%) than non-migrants (44%) had no skills at all. However, about equal proportions of migrants (32%) and non-migrants (31%) had acquired some form of modern skills. On the other hand, a higher proportion of non-migrants (25%) than migrants (5%) had acquired traditional skills.

## 7. Income

Data on the average annual income of the survey population at the time of the survey are presented in Table 9.

Table 9  
Income distribution of survey population  
classified by migration status (In percentages)

Income group (cedis)	Migration status	
	Migrant	Non-migrant
Under 5,000	9.5	34.5
5,001-9,999	36.5	20.2
10,000-14,999	33.3	10.7
15,000-19,999	9.5	8.3
20,000 & over	7.9	4.8
Not stated	3.2	21.4
Total %	100	100
N	63	84

The non-response rate differentiated by migration status is higher for the non-migrants (21.4%) than for the migrants (3.2%). This high non-response from the non-migrants may be explained in three ways. Firstly, in the rural areas farmers do not often keep records of their transactions and so they do not know their actual incomes. A second reason may be the fear that the income figures may be used for taxation purposes. Thirdly, some respondents may suffer from

sheer unwillingness to disclose their incomes to strangers.

Overall, Table 9 shows that about 35% of the non-migrants compared to about 10% of the migrants earn under 5,000 cedis a year. About 37% of the migrants and 20% of the non-migrants earn between 5,000 and 10,000 cedis, while roughly 8% of the migrants and 5% of the non-migrants earn 20,000 cedis and more per year.

### 8. Distance

The two survey villages were selected in such a way that an evaluation could be made of the effect of distance on migration.

Table 10

Distance from the home villages of the survey population to the town, Kforidua by migration status.

Distance to Koforidua	<u>Migration status</u>			
	Migrant		Non-migrant	
	#	%	#	%
< 50km	37	58.7	47	56.0
50km & more	26	41.3	37	44.0
<u>Totals</u>	<u>63</u>	<u>100</u>	<u>84</u>	<u>100</u>

The cash cropping village is located about 30km from the destination town, Koforidua, while the subsistence cropping village is about 250km away. For the purposes of the analysis the distance



factor was dichotomized into less than 50km or more than 50km. Based upon this classification Table 10 shows that about 59% of the migrants moved over a distance of less than 50km while 41% moved over more than 50km. Furthermore, 56% of the non-migrants are located at a distance less than 50km to the destination of the migrants while 41% are located more than 50km away.

#### Model Estimation

The binary logit model which was described in the previous chapter was applied to 147 observations from our survey. The variables used in the estimation process are listed in Table 1. The first step in this stage of the analysis involved the examination of a matrix of correlations between the independent variables (Table 11) in order to check for the absence of perfect multicollinearity. Multicollinearity is always a problem with non-experimental social science data, such as our survey data, since the independent variables are virtually always intercorrelated (Lewis-Beck, 1980). If there are large correlations between the variables in the model, the parameter estimates of the independent effects of each of the variables will not be precise and hence unreliable. Some scholars have suggested the use of a threshold value of 0.70 for the identification of "high" correlations (Hanushek and Jackson, 1977). Another suggestion is to use the value of 0.80 as high correlation (Lewis-Beck, 1980). We used the more drastic value of 0.70 so as to arrive at a very robust model.

Table 11

Correlation coefficients of the independent variables

	AGE1	AGE2	UNMAR	OTHER	PRY	SEC	MSKLL	TSKLL	DIST
AGE1	1.00	-0.43	0.49	-0.06	0.03	0.43	-0.29	-0.15	0.08
AGE2		1.00	-0.31	0.16	0.32	0.00	0.13	-0.06	-0.13
UNMAR			1.00	-0.20	0.03	0.39	-0.04	-0.17	0.11
OTHER				1.00	-0.05	0.08	-0.05	-0.10	-0.05
PRY					1.00	-0.36	-0.12	-0.03	-0.04
SEC						1.00	-0.00	-0.15	0.05
MSKLL							1.00	-0.26	-0.13
TSKLL								1.00	0.14
DIST									1.00

---

Thus, we examined the matrix of correlations of our variables and omitted from the model all values 0.70 and greater. With the exception of the distance variable which was created as a dichotomy, all the other independent variables were trichotomized and one dummy variable for each category was omitted in order to assure that perfect multicollinearity did not exist between the variables. This is the usual approach suggested for conventional regression analysis involving the use of indicator variables (Neter

and Wasserman, 1974; Lewis-Beck, 1980). The result of this procedure produced the matrix of correlations coefficients which are presented in Table 11. As indicated by the coefficients shown in the table, none of the correlations exceeds the threshold value of 0.70. We, therefore, concluded that we do not have the problem of multicollinearity and proceeded to fit our model.

In the last chapter we pointed out that since individual observations are the basic unit of our analysis, the parameters of our binary logit model will be estimated by the method of maximum likelihood estimation (MLE). This was done with the SAS Computer Package Program PROC LOGIST which is an iterative procedure based on the assumption that the dependent variable is binary (as we have) and that  $\text{Prob}(Y=1)$  is given by the logistic function, as alluded to in the previous chapter. When we run the program, PROC LOGIST succeeded, for the procedure converged at the 6<sup>th</sup> iteration and the estimated parameters were obtained as the output of the program. The maximum likelihood estimates (MLEs) of our logit model are presented in Table 12.

The testing of the hypotheses formulated in the previous chapter requires that we examine the regression coefficients (Col. 2 Table 12) associated with the logit model. We use the student's  $t$  statistic to test our hypotheses. Thus, in Col. 4 of Table 12 we have listed the 'asymptotic  $t$ -ratios' which are the ratio of the

estimated coefficient to the estimated asymptotic standard error.

Table 12

Logit Estimate Results

Independent Variable	Regression coefficient	Standard error	t-ratio
Constant	-1.4602	0.5393	-2.7076*
AGE1	-0.3990	0.9282	-0.4299
AGE2	-1.4149	0.6932	-2.0411*
AGE3	-----	-----	-----
MAR	-----	-----	-----
UNMAR	1.7997	0.7896	2.2793*
OTHER	0.7902	0.7007	1.1277
NOEDUC	-----	-----	-----
PRY	2.7495	0.6670	4.1222*
SEC	3.6976	0.8458	4.3717*
UNSKLL	-----	-----	-----
MSKLL	-0.4917	0.5245	-0.9375
TSKLL	-1.9300	0.8714	-2.2148*
DIST	-0.1373	0.4747	-0.2892
Log likelihood		-59.11	
Likelihood ratio test		82.56	
d.f.		9	
<u>N</u>		147	

\* Significant at the 5% level.

Since the maximum likelihood estimator is asymptotically normally distributed (Goldfeld and Quandt, 1972; Theil, 1971) the t-values are likewise normally distributed asymptotically with mean and

variance ie.  $N(0, 1)$  under the null hypothesis that the associated coefficient is zero. With our sample of 147 observations we have large degrees of freedom and so we can be relatively confident in using the  $N(0, 1)$  critical points of the t distribution for our tests.

### Empirical Results

Table 12 presents the results of the logit regression analysis. We administer a significance test at the .05 level, two tailed, by applying the rule of thumb which states that if the t-ratio is greater than +2 or less than -2 then the associated estimated coefficient is statistically significant and the null hypothesis is rejected (Lewis-Beck, 1980; Wrigley, 1985).

We begin the interpretation of the estimated results with the trichotomized age variable, the AGE3 dummy of which serves as the omitted category. A notable finding is that the signs for the coefficients of the age dummies are all consistent with previous research findings and also with our a priori expectations ie. negative. However, the effect of AGE1 is not statistically significant at the .05 level and even at the 10% level. While insignificant, the parameter associated with the AGE1 dummy suggests that this dummy variable is negatively correlated with the log odds of migration. This is not inconsistent with the

findings of previous research which document an inverse relationship between age and migration (Fogarty and Mehta, 1982; Brown and Goetz, 1987). At the .05 level, the AGE2 dummy significantly reduces the log odds of migration by -1.41.

With regards to the marital status dummies, Table 12 shows that the coefficient of the UNMAR (ie. unmarried) dummy is positive and significant as expected. This result suggests that if all other things are held constant, being unmarried increases the log odds in favour of migration by about 1.80. The parameter associated with the OTHER (ie. the divorced, the separated, and the widowed) dummy is positive but insignificant. The result suggests that the OTHER dummy variable has no statistically significant effect on the likelihood of migration.

Turning attention to the education dummies, Table 12 indicates that each of the two dummy variable coefficients representing education is positive and highly significant. The results suggest that as expected, the possession of education substantially increases the probability or likelihood of migration. In fact the log odds in favour of migration is higher for those with secondary education (SEC) than those with primary education (PRY). These results corroborate the findings from the studies by Speare Jr., (1971), Fogarty and Mehta, (1982), and Brown and Goetz, (1987).

The findings from the education dummy variables are not surprising because the type of formal education in Ghana and other developing countries is geared towards the production of white collar workers. Thus, school leavers are not prepared to take up the predominant occupation in the rural areas which is farming. Almost all the white collar jobs which require at least a middle school education are disproportionately concentrated in the towns and cities. As such school leavers unprepared for farming occupations have no option but to migrate out of the rural areas.

Moreover, the findings from the education dummies support the hypothesis that migration in the developing countries is used by individuals as a form of an upward social mobility strategy. It can be argued that individuals with some formal education beyond the middle school level are more occupationally mobile. Thus, with the concentration of modern social and economic infrastructure in the towns and cities, those persons who wish to rise up the socio-economic ladder have no choice but to migrate to the urban centres. And it is invariably those with higher educational statuses who are more likely to rise up the socio-economic ladder and hence are more prone to migrate to the cities.

The signs for the skill dummy variables are all negative as expected. However, whereas the TSKLL (ie. traditional skill) dummy coefficient is statistically significant, that for the MSKLL (ie.

modern skill) dummy is not significant. The results suggest that if all other factors are controlled, the possession of traditional skills has the effect of decreasing the log odds of migration by -1.93. On the other hand, the possession of modern skills has no significant effect on the likelihood of migration.

The finding for the MSKLL dummy variable appears to be somewhat unappealing. However, this finding may be explained in the following way. There has been a gradual spread of small scale industries and projects such as soap making, coconut oil making, oil palm projects, and cocoa rehabilitation schemes into the rural areas especially after the country attained political independence in 1957 from the British colonial government and more particularly, with the establishment of the department of rural development in the 1970s (Bortei-Doku, 1974; Brown, 1974). These local industries and projects have created the need for people possessing some technical skills, either modern or traditional, to be employed in the rural areas. Thus, it is not unlikely that individuals who possess some modern skills may be attracted to take up job openings in the rural areas. Such persons may not be willing to out-migrate probably because of satisfaction with work or the possession of sufficient money—a factor which was cited by about 29% of the non-migrants as their reason for non-migration (Table 15).

The effect of the contextual variable, distance to Koforidua



(DIST) is negative, as anticipated, but insignificant which is rather unexpected. This result implies that contrary to our expectations distance has no significant effect on the log odds of migration. This unexpected result from the distance variable may be due to the fact that only two source areas of migrants were studied in relation to only one destination town. As well, an equal number of migrants and non-migrants were selected from each survey location. It is more probable that if several source areas of migrants in several different regions were surveyed the results of the effect of distance would be different. For instance, in the case of the studies by Caldwell (1969), Connell et al. (1976), and Bilsborrow et al. (1987), several source areas of migrants were studied and the effect of distance was found to be negative.

It should be pointed out however, that empirical results from Greenwood's (1981) research in Mexico showed that the effect of distance had declined in deterring migration. Greenwood attributed this decline to the marked improvement in transport and communications in Mexico in the 1960s and 1970s. In line with Greenwood's explanation, it can be argued that although our finding from the distance variable is contrary to expectation, it is not improbable that in local areas where transport and communications have been improved the influence of distance may be a less important factor to migration prone populations if the push factors

are very strongly felt.

#### Goodness of Fit of the Estimated Model

In the foregoing section we considered the results of our logit regression analysis by looking at the signs and values of the estimated coefficients of the model. We also evaluated various hypotheses about the individual parameter estimates by using the asymptotic t-test. Having done this it is desirable to turn attention to statistical tests of the significance of our model. Specifically, we need to know how well the logit model fits our observed data.

As with conventional regression analysis, in order to determine the goodness of fit of our logit model, it is necessary to compare the predicted dependent variable with the observed dependent variable. In discrete choice models, such as our binary logit model, however, the predicted dependent variable produced by the estimated model is the logit or a probability whereas the observed dependent variable is an actual choice category. Thus, as Hensher and Johnson (1981) point out, it does not make any sense to use the residuals obtained from the difference between the predicted and the observed values in the calculation of a measure of the goodness-of-fit.

The literature shows that in logit analysis the test statistic

which is used to evaluate the null hypothesis that all the estimated coefficients of the fitted model, except the intercept, are equal to zero, ie. to test the overall significance of the model, is the likelihood ratio test (Wrigley, 1985; Costanzo et al., 1982; Aldrich and Nelson, 1984). This test statistic is expressed in terms of the maximized log likelihoods and is computed as:

$$c = -2[\log_e L_0 - \log_e L_1]$$

where  $\log_e L_1$  is the value of the maximized log likelihood function for the full model as fitted which includes all the parameters and,  $\log_e L_0$  is the maximized log likelihood of the fitted model which includes only the constant term (ie. a model in which all the parameters except the intercept are constrained to zero).

The likelihood ratio test statistic is distributed asymptotically as chi-square with  $K-1$  degrees of freedom if the null hypothesis is true. We choose the .05 level of significance for our test.  $-2 \log$  likelihood for the fitted model containing the intercept only is 200.77 and,  $-2 \log$  likelihood for the full model as fitted is 118.22. We thus have:

$$c = -2[-100.39 - (-59.11)] = 82.56$$

Thus, the test statistic for our model has the value 82.56, whilst the tabulated value of chi-square at the .05 level of significance with 9 degrees of freedom is 16.92. Since the calculated chi-square

far exceeds the tabulated chi-square we reject the null hypothesis and conclude that some of the explanatory variables have an associated non-zero parameter. This conclusion corroborates the results of our analysis in the previous section, where we found that five of the explanatory variables have coefficients whose associated t-ratios are statistically different from zero. This result suggests that the model provides a "very good" fit to our data.

Another measure which is also used to assess the goodness-of-fit of the logit model is the pseudo- $R^2$ . It is also known as rho-square and is defined by

$$\underline{p}^2 = 1 - (\log_e L1 / \log_e L0).$$

In words this means one minus the ratio of the maximized log likelihood values of the fitted and constant-only-term models. In this case  $\underline{p}^2 = 1 - 0.59 = 0.41$ .  $\underline{p}^2$  ranges in value from 0 to 1 and it is suggested that the larger the value of this measure, the better the fit of the model (Wrigley, 1985). However,  $\underline{p}^2$  values are known to be considerably lower than values of  $R^2$  which is used in conventional regression analysis (McFadden, 1979). Thus it is suggested that "values of  $\underline{p}^2$  of between 0.2 and 0.4 are considered extremely good fits so that the analyst should not be looking for values in excess of 0.9 as is often the case when using  $R^2$  in ordinary regression (Hensher and Johnson, 1981:51)." In view of

this, since our computed  $p_2$  value of 0.41 falls above the 0.2-0.4 range, we can conclude that the fit of our model to our survey data is, to a very large extent, very outstanding.

Lastly, as a measure of the success of the model, we examine a classification table showing the predicted versus the actual values of the dichotomous dependent variable, migration status, and determine the proportion of cases which were predicted correctly by the model. As Aldrich and Nelson (1984) point out, such a measure "gives some clue as to the plausibility of the model (1984:57)." From the predicted values obtained from the output of the program, we were able to construct the classification table shown in Table 13. In the table, positive means dependent variable equals 1 and negative means dependent variable equals 0. If the predicted value of the dependent variable is greater than .5, the case is predicted to be 1; while if the predicted value is less than .5, that case is predicted to be 0.

Table 13 shows that the model appears to be exceedingly successful in predicting the non-migrants than the migrants (90.5% as compared to 74.6%). Even then the proportion of migrants predicted correctly is by no means less outstanding. Overall, the model predicts correctly 83.7% of the observed response categories (ie. 83.7% of the observed migrants and non-migrants are correctly predicted).

Table 13  
Classification table of predicted versus  
observed values of migration status

		<u>Predicted</u>		Total	Percent Correct
		Negative	Positive		
		<u>M=0</u>	<u>M=1</u>		
<u>Observed</u>	Negative	76	8	84	90.5
	<hr/>				
	<u>M=0</u>				
	Positive	16	47	63	74.6
<hr/>					
		<u>M=1</u>			
<hr/>					
<u>Total</u>		92	55	147	83.7

Although the classification table may be deemed a crude method of examining the adequacy of the fitted model, it does provide useful information in support of the validity of the model. It also confirms the conclusions drawn from the rho-square and the likelihood ratio tests already presented above.

To sum up, in this section we have analyzed and identified the important variables which determine the likelihood of out-migration. Clearly, the analysis has shown that among the variables considered, the education dummies are the most important in determining the chances of migration. The other dummy variables which are also important in affecting the log odds in favour of

migration are AGE2, UNMAR, and TSKLL. Distance was found to have no statistically significant effect on the likelihood of migration. This finding for the distance factor may be the result of our survey of only two source areas of migrants and also our use of equal numbers of migrants and non-migrants.

### Stage Two

Given stage one of this analysis, the estimation of the logit model to explain out-migration, the next stage is to employ the subjective approach to explain the migrational behaviour of the survey population. Specifically, we examine the migrants' reasons for moving out of the survey villages and also the non-migrants' reasons for staying. This section also includes a discussion of the migrants' open-ended reasons for selecting Koforidua as a destination.

#### Motivation for migration and non-migration

##### (1) Migrants' reasons for moving out of the survey villages.

The migrant heads of household were questioned on the reasons for moving out of the survey villages. The open-ended responses were coded into four main reason categories (Table 14).

As expected, the outstanding fact about Table 14 is the emphasis

an economic motive.

Table 14

Distribution of migrants by reason for moving out  
of the survey villages.

Reason category	Frequency	Percent
Lack of jobs in the villages	28	44.4
Scarcity of land	23	36.5
Lack of social amenities	10	15.9
Poor living standard	2	3.2
<u>Total</u>	<u>63</u>	<u>100</u>

The most frequently cited reason for moving is the lack of jobs (44%) in the villages. The second most important reason, the scarcity of farmland, accounts for about 37% of the reasons for moving. This finding is not surprising since the dominant economic activity in the survey villages is farming, yet the ecological conditions are such that the available arable land is severely restricted (as already indicated in the section under the study



area). Nearly 16% of the migrants said they moved out of the survey villages because of the lack of social amenities while 3% migrated because of the poor living standards.

It is thus clear from the foregoing that the major factor promoting out-migration from the survey villages is the relative poverty of those areas reflected in a limited economic opportunity structure and the inability of the people to secure land for farming.

(2) Non-migrants' reasons for not moving out of the survey villages.

In spite of the generally poor economic conditions in the survey villages and the relatively deprived infrastructure represented by lack of social amenities, the fact remains that many people still choose to remain in the villages. In migration research, there is a clear bias towards reasons for moving studies. The subject of non-mobility is often ignored although the majority of the population at risk of migration actually do not migrate. Even the decision whether or not to migrate is contingent upon the motivation for and also the constraints upon migration.

As Uhlenberg (1973) points out, "even when it is known that motivation for migration exists, one cannot predict actual behaviour until the various migration constraints have also been

examined (1973: 303)".

Table 15

Distribution of Non-migrants by reasons for  
staying in the survey villages.

Reason category	Frequency	Percent
Family considerations/ Village ties	26	31.0
Possession of farm or land	19	22.6
Satisfied with work or has enough money	24	28.6
Likes village life	7	8.3
Old age	8	9.5
<u>Total</u>	<u>84</u>	<u>100</u>

In this study, therefore, we tried to analyze not only the motivations for migration but also an attempt was made to account for non-migration. In order to ascertain the fundamental reasons for non-mobility, the non-migrant survey included a specific

question about factors or forces which bind the people to the village. The reasons for not moving were coded into five main reason categories. As indicated in Table 15, the typical pattern of response is to cite a tie related factor as the main reason for not moving. Social ties to the community which pertain primarily to relatives, family and friends account from 31% of the reasons for staying. The second most important reason, the factor of satisfaction with work and sufficient money, was cited by about 29% of the non-migrants. The factor of possessing farm land was not entirely satisfying for only 23% of the non-migrants claimed that their stay was connected with this reason. This response is not unexpected since it has already been noted that the most important productive resource in the survey villages, land, is limited in quantity and quality so that farming is not highly remunerative. Roughly 10% of the non-migrants claimed that they are influenced by the factor of old age.

Lastly, preference for village life was cited by 8% of the non-migrants. This suggests that the bucolic conditions in the villages are enough attractions to some people. These findings corroborate the empirical findings from Harris and Steer's (1968) research in Jamaica and also Weller's (1965) study of the Appalachia in the United States.

(3) Migrants' reasons for selecting Koforidua as a destination

The distribution of the open-ended responses to the question as to why the migrants selected Koforidua as a destination are analyzed in Table 16.

Table 16  
Distribution of migrants by reason for  
selecting Koforidua as a destination.

<u>Reason category</u>	<u>Frequency</u>	<u>Percent</u>
Availability of job opportunities/higher incomes	20	31.7
Ties: To join relative/ family or friend	18	28.6
Trading purposes	11	17.5
Prefer town life	5	7.9
Better social life	9	14.3
<u>Total</u>	<u>63</u>	<u>100</u>

Overall, the reasons demonstrate that both economic and non-economic factors are important. The factor of better job

opportunities and higher incomes or wages accounts for about 32% of the responses. About 29% of the reasons pertain to established place tie, in this case, social ties (ie. family and friends). This finding supports previous research evidence that migrants tend to move to locations where relatives and friends are present (Banerjee, 1981).

Another reason which is also largely economic is the factor of petty trading. Roughly 18% of the migrants said that they selected Koforidua as a destination because of the petty trading opportunities afforded by the town. Some migrants were also attracted to the town by the more lively social conditions prevailing there. For, better social life was cited by 14% of the migrants as the reason for selecting the town as a destination. Lastly, some of the migrants (about 8%) claimed that they selected the destination because they prefer town life. This factor has to do with the psyche and the socio-psychological attachment to urban way of life.

#### Channels of information

The decision whether or not to migrate and the subsequent migrational behaviour, is to a large extent influenced by the information level available to the potential migrant. In the selection of a destination the role of information becomes even

more crucial since the rational individual invariably moves to a place about which he/she has some concrete or satisfactory knowledge.

Thus, in the survey the migrants were asked to tell us their sources of information about their present destination, Koforidua (Table 17). As shown in Table 17, the majority of the migrants 71% relied on their relatives and friends for information. About 21% claimed that they depended on personal contacts; while about 8% relied on the news media, especially the transistor radio.

Table 17

Distribution of migrants by sources of information about the destination, Koforidua.

<u>Source of Information</u>	<u>Frequency</u>	<u>Percent</u>
Relatives and Friends	45	71.4
Personal contact	13	20.6
<u>Radio/TV/Newspapers</u>	5	7.9
<u>Total</u>	<u>63</u>	<u>100</u>

Migrants' residence on arrival at the destination,  
Koforidua.

Migrants utilize the various channels of information available to them to ensure that they are not stranded on arriving at their destination. For, one of the first problems of adjustment which confronts a migrant is finding a place to live. In our survey, we tried to obtain information from the migrants about their residence on first arrival at the destination, Koforidua. The responses are set out below in Table 18.

Table 18  
Distribution of migrants by residence on  
first arrival at Koforidua.

<u>Residence</u>	<u>Frequency</u>	<u>Percent</u>
Alone (rented accommodation)	18	28.6
With friends and relatives	43	68.2
Others	2	3.2
<u>Total</u>	<u>63</u>	<u>100</u>

It can be seen from Table 18 below that less than one-third, about 29% of the migrants claimed that they stayed on their own in rented accommodations on arrival at Koforidua. Obviously, these comprised, in the main, migrants involved in some form of step migration and who, through personal contact and/or friends had been able to make previous accommodation arrangements before they moved to the destination.

The majority of the migrants, 68%, stated that they lived with friends and relatives on arrival at Koforidua. This finding emphasizes the crucial role played by friends and relatives in the initial adjustment of the new migrant to life in the towns and cities of the developing countries.

Lastly, with respect to the future mobility plans of the migrants, we asked the respondents to tell us whether they intended to return home permanently. Not unexpectedly, the very large category of 76.4% stated that they would eventually return to their home places. Only a mere 20.6% claimed that they would not return to their home origins. This finding supports the view that in the developing countries, rural-urban migration is not a one way affair. For most migrants always cherish the hope of an eventual return to this home place.

To sum up, stage two of the analysis shows that to a very large extent, the underlying motivation for migration is socio-



economic. On the other hand, the factor of socio-cultural and psychological norms largely explain the phenomenon of non-migration. An analysis of the migrants' open-ended reasons for selecting Koforidua as a destination showed that both economic and non-economic factors are equally important. The important role played by friends and relatives as channels of information and in accommodating the migrant on first arrival at the destination were also noted.

CHAPTER V  
CONCLUSIONS AND RECOMMENDATIONS

In this study, an attempt has been made to address three main issues; namely, (i) the significance of individual level factors or characteristics and the areal\contextual variable of distance in influencing migration; (ii) factoring the migration decision-making process into the decision to move out of the survey village and the decision to select Koforidua as a destination; and (iii) examining the phenomenon of non-migration. The procedure used to evaluate these issues involved two main stages.

First, we used individual observations from a sample of 147 migrant and non-migrant heads of household to develop and estimate a logit model in which the dichotomous dependent variable, migration status, was related to the individual level factors or characteristics and the distance to Koforidua. Since the observations in our survey data are of individuals and not grouped, our logit model was estimated by using the method of maximum likelihood estimation with the SAS Computer Package Program, PROC LOGIST. Thus, the overall fit of the model to the data was assessed with the maximum likelihood ratio chi-squared statistic. This test statistic ( $\chi^2=82.56$ , d.f.=9,  $p=0.000$ ) indicates that the model is highly significant.

We also evaluated the validity of our model by the use of the rho-square ( $r^2$ ) and obtained the value of 0.41 which lies above the range of values (0.2-0.4) which McFadden (1979) has suggested represent a "good" fit. Finally, a classification table of the predicted dependent variable values shows that our model was able to predict correctly 83.7% of the observed response choice categories (ie. 83.7% of the migrants and non-migrants were predicted correctly).

Our analysis has shown that the logit model as formulated in this study works remarkably well. The signs of the estimated coefficients have directions consistent with the findings of previous research and our theoretical perspectives. The results of the age dummies show that AGE2 has a negative and significant effect on the log odds of migration. Being unmarried has a significant positive effect on the likelihood of migration. The findings of the education dummy variables show that the possession of secondary education has a greater positive effect on the log odds of migration than the possession of primary education. These findings are consistent with previous research findings and the hypothesis that the higher the level of education the more one is prone to migrate. This is so because migration is invariably adopted as an upward social mobility strategy. The existing formal educational system makes the recipient eager to acquire a white

collar job which can be obtained only in the urban centres.

Of the skill dummy variables, TSKLL was found to have a significant negative effect on the probability of migration consistent with our hypothesis. However, the finding for the MSKLL dummy is contrary to expectation. Probably this result may be due to the spread of small scale local industries and projects such as soap making, coconut oil making, oil palm plantations, and cocoa rehabilitation schemes into the rural areas. All these industries and projects have created job openings for those possessing some form of modern skills who are, therefore, attracted to work in the rural areas. Thus, nearly 29% of the non-migrants cited the factor of satisfaction with work or the possession of sufficient money as the cause of their unwillingness to migrate. However, since this is an exploratory study more research is needed before any definitive conclusions can be made.

Lastly, the effect of distance to Koforidua was found to be negative but insignificant. This finding is rather unexpected. Yet in view of the fact that only two source areas of migrants were surveyed, we cannot take our findings as providing any conclusive evidence of the influence of the distance factor. More research using several source areas of migrants is needed for definitive conclusions to be made.

Attention now turns to the findings of the second stage of

the analysis where we used the subjective approach to ascertain the factors influencing the migrational behaviour of our respondents. Based upon the subjective evidence of the non-migrants in the two survey villages, it is apparent that the motivation for non-mobility has some economic undertones. For, we found that the possession of farm or land and satisfaction with work, all of which are economic ties to the village, discourage migration. However, perhaps the most apparent influences on the non-migrants' mobility are mainly the socio-psychological factors of family considerations and psychic attachments to the birth place. This finding is not surprising in view of the traditional emphasis on the family and kinship ties among rural folks in Ghana and other developing countries.

With regards to the migrants' reasons for moving out of the survey villages, it was found that the underlying motivation for migration is economic. It is the restricted economic opportunities in the villages which explain the persistent out-migration. For the lack of jobs and the scarcity of arable land for farming were cited as the main reasons for migration.

Overall, the reasons for selecting Koforidua as a destination demonstrate that both economic and non-economic factors are important. Although the factor of availability of job opportunities was the most frequently cited reason, a large proportion, nearly

one third, of the reasons can be described as pertaining to social ties ie. to join family, friend and/or relatives. Such ties are described by DaVanzo and Morrison (1981) as location specific capital in migration decision-making.

In sum, this study has produced evidence in support of the contention that migration researchers adopt a two stage analytic approach to migration decision-making (Brown and Moore, 1970). For, our analysis has clearly demonstrated that the first stage of the migration decision-making process actually involves two decisions: viz, to migrate or not to migrate. Thus, the two behavioural dimensions which need to be accounted for are the reasons for moving and the reasons for not moving. The evaluative dimension in the decision to out-migrate is basically the relative poverty of the rural areas. However, the decision not to migrate is largely influenced by both economic and socio-psychological factors.

The second stage of the analysis involves the selection of a destination. It was found that at this stage the influence of location specific capital in the form of social ties plays a crucial role. Furthermore, it is in the destination selection that the potential migrant relies on channels and flows of information.

To a very large extent the results of this study fall in line with the works of Caldwell (1969), Fogarty and Mehta (1982), Bilsborrow et al. (1987) and Lall (1986). Therefore, the findings

from this case study add to and also reinforce the body of knowledge needed for developing a broader theoretical base. The findings also point to the importance of micro-level sample surveys. For it is through such surveys that it is possible to account for the largely ignored but important phenomenon of non-migration, as it is not, with macro-level approaches employing aggregate census data. The findings from a large number of such micro-level sample surveys at different locations can be collated to provide the basis for generalizations needed for the validation and/or the refinement of existing theories and the development of new ones.

However, despite the intriguing nature of the findings of this study, the results should not be considered as definitive. In the first place, the analysis is concerned with the migration behaviour of individual heads of household. It does not cover the collective behaviour of the entire household members. Also, in line with the work of Speare Jr. (1971), we imposed an age-sex limitation and restricted our analysis only to males aged 15-54 and defined migration by a short time interval of six months. There was no financial support for the research and so we could survey only two source areas of migrants.

The foregoing limitations are meant to temper the following policy inferences of the study. Rural social structures need to be

studied in depth and re-organized. For instance, since the possession of farm or land discourage migration, the problem of landownership imposed by the land tenure system needs to be resolved. For the land tenure system is based on communal ownership, the land being regarded as a patrimony of the family. This system results in land fragmentation to the frustration of many a farmer's aspirations. Therefore, a land reform making it possible for rural folks to own larger acreages of land is essential for promoting the immobility of the people.

Furthermore, in order to stem the tide of rural out-migration it is necessary to improve the pull of rural areas through the establishment of small scale industries which can provide jobs for the rural folks. There is the need to locate more of the small scale local industries such as soap making, coconut oil making, and other projects such as local rubber plantations, cocoa rehabilitation schemes in the rural areas to employ people with some skills either modern or traditional skills. Traditional crafts should also be promoted as a means of retaining population in the rural areas.

Another important policy implication is the urgent need to overhaul the formal educational system if the migration of school leavers to the urban centres is to be curtailed. What is needed is an educational system which leads to the acquisition of practical



skills which can be utilized both in the town and also in the rural area. Furthermore, rural development programs should be promoted so as to improve the quality of life in the villages in order to make the rural environment more attractive to a large proportion of the people.

Future research could broaden the scope of the present study by the inclusion of all household members and the introduction of more variables in the analysis. Variables such as occupation, income, homeownership, average size of landholding, family size, the number of dependent children and satisfaction with community can all be carefully measured and introduced into the regression equation. In terms of investigations of a replicative nature, we advocate a tracer survey in which after the initial non-migrant survey, the out-migrants from the villages are followed-up to their current addresses at the destination. In this way the collective migrational behaviour of all the household members can be more adequately examined.

These suggestions presuppose the availability of adequate funding for the research. If funds are made available for the research then the source areas of the migrants will not be limited as it is in this study. There is the need for the survey of several source areas and probably many destination towns also. Furthermore, there is also the need for team work. It was pointed out in the

theoretical framework that migration is a multi-dimensional and inter-disciplinary subject. Thus, scholars from various disciplines must be pulled together to undertake a more comprehensive research. In this study the analysis has revealed that we need a team of psychologists, economists, demographers, geographers, sociologists and agriculturalists to undertake a survey of both migrants and non-migrants in the migrants source areas and at the destination of the migrants.

A multi-disciplinary micro-level survey research is needed so that the behavioural aspects of migration and non-migration can be studied in depth. We advocate more comprehensive studies covering a large number of source areas and destinations in a variety of regions to build up a sound theoretical model.

**APPENDIX**

CONFIDENTIAL

SERIAL NO. OF QUESTIONNAIRE

Topic: CHARACTERISTICS AND BEHAVIOUR OF MIGRANTS AND NON-  
MIGRANTS IN SOUTHEASTERN GHANA

QUESTIONNAIRE I HOMELAND QUESTIONNAIRE FOR PERSONS AGED

15 YEARS AND OVER

1. Date of interview .....
2. Name of Locality .....
3. Name of interviewer .....
4. Serial no. of respondent .....

SECTION A: DEMOGRAPHIC CHARACTERISTICS

5. Name of head of household .....
6. Age..... 7. Sex .... 8. Place of Birth.....
9. Home town ..... 10. Ethnic Group .....
11. Marital status: (i) Married (ii) Single  
(iii) Divorced (iv) Separated (v) Widowed
12. If married, no. of wives .....
13. How many people live in this household with you? .....  
(list numbers against the following age groups)  
(i) below 14 yrs M.....F..... Relationship.....  
(ii) 15-19 yrs M..... F..... Relationship.....  
(iii) 20-34 yrs M..... F..... R.....  
(iv) 35-44 yrs M..... F..... R.....  
(v) 45-64 yrs M..... F..... R.....

(vi) 65 and ov. M..... F..... R.....

14. How many rooms do you and your household members occupy?....

15. Please indicate the marital status of your children and other household members:

	Name	Relationship	Age	Sex	Marital	Status
1.						
2.						
3.						
4.						

SECTION B: EDUCATIONAL CHARACTERISTICS

16. What is the highest education obtained by you?.....  
.....

17. Indicate the highest education obtained by your wife/wives/  
husband.....

18. Give the no. of your children and relatives attending school  
under your care:

No.	School/attending location	Age	Sex	Class	Relationship
-----	------------------------------	-----	-----	-------	--------------

SECTION C: OCCUPATION/INCOME

19. What is your major occupation? .....

20. What skills or trade have you learned? .....



- (ii) .....
- (iii) .....
- 33. Do you have any assistance in the form of credit facilities for your farming operations?      Yes                      No
- 34. If Yes, from whom or from what agency? (i) bank  
       (ii) money lender                      (iii) relative/friend  
       (iv) migrant relative outside home  
       (v) other (specify).....

SECTION D: CURRENT & FUTURE MOBILITY PLANS & MOBILITY PATTERNS

- 35. Why have you confined yourself to living here all the time?.... ..
- 36. Do you intend to move out of this place?      Yes              No
- 37. If yes, why do you want to move?.....
- 38. Where do you want to move to? .....
- 39. Why do you want to move there? .....
- 40. What season/time do you want to move there?.....
- 41. After how long will you return? .....
- 42. If No to Question 36, how often in a month do you travel to the nearest largest town?  
       (i) 1-4 times                              (seasonal)  
       (ii) 5-8 times                             (circulating)  
       (iii) 9-12 times                          (commuting)  
       (iv) 12 times & over                    (commuting)      (v) never

43. For what purpose do you make these journeys to the town?  
 (i) .....  
 (ii).....  
 (iii).....
44. How many members of this household are currently living outside this village? No. .... M..... F.....
45. Please list four main things which you gain from your household members who are living outside this place  
 (i)..... (ii) .....  
 (iii)..... (iv) .....
46. What problems are created for you and your household by the absence of these people?  
 (i)..... (ii) .....  
 (iii)..... (iv) .....
47. Do you receive remittances from your children living outside this village? Yes No
48. If yes, specify four main uses of the remittances:  
 (i)..... (ii) .....  
 (iii) ..... (iv) .....
49. How many members of your household have once migrated out but have now eventually returned? No. ... M. .... F.....





SECTION H: EDUCATION

- 58. What was the highest education you obtained before you returned home? .....
- 59. What type of skill did you learn before you moved out?.....
- 60. What higher educational qualification did you obtain before you returned to your home?.....
- 61. What skills did you learn while you were away as a migrant?.....

SECTION I OCCUPATION

- 62. What type of work were you doing before you migrated out?
- 63. What type of work were you doing immediately before you returned to your home place? .....
- 64. How much income were you earning per month before you returned? (i) less than 5,000 (ii) 5,000 - 10,000  
(iii) 10,000 - 15,000 (iv) 15,000 - 20,000  
(v) 20,000 and over (vi) not stated
- 65. What is your present occupation now? .....

SECTION J: MIGRATION BEHAVIOUR

- 66. Please list all the towns/regions you have lived in since you left home.

From	To	Town/ Region	Length of stay	Edu.	Occup.	With whom stayed	Reasons for leaving
------	----	-----------------	-------------------	------	--------	---------------------	------------------------

67. What were the most important aspirations or goals you had while you were away as a migrant?

(i).....

(ii) .....

(iii) .....

68. Which of these aspirations/goals were fulfilled?.....

69. For how long did you stay away as a migrant?.....

70. When did you return to this place? .....

71. How old were you when you returned? .....

72. Why did you have to return home? (i) loss of job

(ii) retirement (iii) ill-health (iv) to farm

(v) to set up own business (iv) acquired sufficient capital

(vii) tired of living tin town

(viii) other specify) .....

SECTION K: BENEFITS OF MIGRATION

73. Please indicate any of the following properties you acquired before you migrated (rank 1,2,3, etc.) (i) bicycle/motorcycle

(ii) vehicle (iii) corn mill (iv) house/building

(v) furniture (iv) land (vii) farm

(viii) radio (ix) other (specify) .....

74. Give a list of the properties you have acquired through migration and state where they are located:

Property	Location	Property	Location
----------	----------	----------	----------

75. In what ways do you think migration has been beneficial to you? (i) ..... (ii).....  
(iii) ..... (iv).....

76. In what ways does your community benefit from you as a return migrant?  
(i) ..... (ii) .....  
(iii) ..... (iv) .....

SECTION L: FUTURE MOBILITY

77. Do you intend to move out of this place again? Yes No

78. If Yes, would you move to your previous place of residence? Yes No

79. Please explain .....  
.....

Thank you

CONFIDENTIAL

SERIAL NO. OF QUESTIONNAIRE

Topic: CHARACTERISTICS AND BEHAVIOUR OF MIGRANTS AND  
NON-MIGRANTS IN SOUTHEASTERN GHANA

QUESTIONNAIRE II DESTINATION QUESTIONNAIRE FOR MIGRANTS  
RESIDING AT KOFORIDUA

1. Date of interview .....
2. Name of interviewer .....
3. Serial no. of household .....

SECTION A: GENERAL INFORMATION

4. Name of head of household .....
5. Age ..... 6. Sex ..... 7. Place of Birth.....
8. Home town ..... 9. Ethnic Group .....

SECTION B: MARITAL STATUS AND FAMILY RELATIONSHIPS

10. Marital Status (i) Married (ii) Single  
(iii) Divorced (iv) Separated (v) Widowed
11. If married, no. of wives .....
12. Where is wife/wives living (give no.)  
(i) In this house (ii) At home with my people  
(iii) At home with her people  
(iv) In another house in this town (v) N.A.
13. If married, were you married before you moved to this town?  
Yes.... No....





30. About how much was sent each time? (i) Less than 1,000  
(ii) 1,000 - 2,000 (iii) 2,000 - 3,000  
(iv) 3,000 - 4,000 (v) 4,000 - 5,000  
(vi) 5,000 and over (vii) N.A.
31. Apart from money, what other items do you send back home?  
(i)..... (ii).....  
(iii) ..... (iv) .....
32. What is the money sent home used for? (i) .....  
(ii) ..... (iii) .....

SECTION F: PROPERTY OWNED

33. Please indicate any of the following properties you acquired before you migrated to this town (rank 1,2,3, etc.)  
(i) Bicycle/Motorcycle (ii) Vehicle  
(iii) Land/farm (iv) Furniture (v) Radio  
(vi) Fridge/freezer (vii) Other (specify) .....  
(viii) None
34. Give the list of properties you have been able to acquire after migrating to this town: (i).....  
(ii) ..... (iii) ..... (iv) .....

SECTION G: MIGRATION BEHAVIOUR, CHANNELS & INFORMATION FLOW

35. When did you arrive in this town? .....
36. How old were you when you arrived here?.....



37. Why did you decide to move to this town and not to another place?.....
38. Indicate your source of information about this town before you migrated here: (i) relatives/friends (ii) radio (iii) newspapers (iv) personal contact (v) other (specify) .....
39. With whom did you stay when you first moved here?  
 (i) Alone (rented accommodation) Rent paid per mo. ....  
 (ii) With relatives/friends (iii) With employer  
 (iv) Other (specify) .....
40. What was his/her occupation? .....
41. For how long did you stay with him/her? .....

SECTION H: PATHWAYS, STEPWISE AND RETURN MIGRATION

42. Did you move to this town directly from your home place?  
 Yes..... No...
43. Why did you decide to move out of your home place?.....  
 .....
44. If No to Question 42, please list all the towns/villages you have been to before moving here:

	From	To	Town/ Village	Length of stay	How financed	With whom stayed	Reasons for leaving
1.							
2.							
3.							
4.							
5.							

45. Which of your relatives and friends moved with you to this town? (i) ..... (ii).....  
 (iii) ..... (iv) .....

46. Where are they located now?

Relation	Location
1.	
2.	
3.	
4.	
5.	

47. How often in a year do you visit your homeplace?

- (i) quite often 7-12 times (ii) occasionally 2-6 times  
 (iii) rarely, once (iv) never (v) not stated

48. Give the time you normally return home for visits .....

49. What are the main reasons for these return visits home?

50. Do you intend to return home permanently? Yes No

51. If Yes, what would make you decide to return home

- permanently? (i) loss of job (ii) after acquiring  
 sufficient capital (iii) opening of job avenues at home  
 (iv) after educating all my children (v) other (specify)

52. If No, why? .....

SECTION I: SPECIAL DYNAMICS, RESIDENCE, ACCOMMODATION &

LOCATION

53. Name of neighbourhood (section) in town .....
54. What is the condition of the dwelling area? (i) excellent  
(ii) very good (iii) good (iv) poor (v) not decide
55. How do you hold this accommodation? (i) rent amount  
paid per month .....(ii) owner occupied  
(iii) not owner occupied but rent free  
(iv) other (specify).....
56. How many rooms do you and your household members occupy?.....
57. What is the total no. of people in your household?.....
58. How long have you been living in this section of the town?  
.....

Aspirations, Expectations and Satisfaction

59. Give four main aspirations that you have:  
(i)..... (ii) .....  
(iii)..... (iv) .....
60. Which of these aspirations have you been able to realize?  
(i)..... (ii).....
61. Are you satisfied with your present living condition?  
Yes                      No
62. Please explain .....

Organizations and Associations

63. Do you belong to any organizations, associations or unions?

Yes        No

64. If Yes, what role does your association/union play in the development of your home place and this town?

(i) Home place .....

.....

(ii) This town .....

Problems and Attitudes

65. List four major problems you face in this tow

(i) .....

(ii) .....

(iii) .....

(iv) .....

66. What is being done to solve these problems?.....

67. What, in your opinion, are the advantages and disadvantages of migration to you, your home place and this town?

Advantages

Disadvantages

(i) You .....

.....

.....

.....

(ii) Your home place

.....

.....

.....  
(iii) This town  
.....  
.....

68. Please list in order of importance the main qualities about this town which attracted you here.

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....
- (v) . .....

69. Could you please, tell me the main qualities about your village which made you dislike the place and therefore forced you to migrate out of it?

(list in order of importance)

- (i).....
- (ii) .....
- (iii) .....
- (iv) .....
- (v) .....

Thank you

## BIBLIOGRAPHY

### Books

- Addo, No. O. (1975a) "Internal Migration Differentials and their effects on socio-demographic change", in Caldwell, J.C. et al. Population Growth and Socio-Economic change in West Africa (New York, Columbia University Press).
- \_\_\_\_\_ (1975b) "West African Population Movements", in David, A.S. et al. Interdisciplinary Approaches to Population Studies (Legon, University of Ghana), pp. 144-173.
- Amin, S. (1974) "Introduction", in S. Amin (ed.), Modern Migration in Western Africa (London, Oxford University Press).
- Arizpe, L. (1982) "Relay Migration and the survival of the peasant household", in Safa, H.I. (ed.), Toward A Political Economy Of Urbanization in Third World Countries (Delhi, Oxford University Press), pp. 19-46.
- Balan, J. (1978) Agrarian structure, capitalist development and Labour markets in Latin America: Cityward Migration in Historical Perspectives (Buenos Aires, CEDES).
- Bilsborrow, R.E. et al. (1984) Migration Surveys in Low Income Countries: Guidelines for Surveys and Questionnaire Design (London, Croom Helm)
- Blalock, H.M. Jr. (1979) Social Statistics 2nd Edition (New York, McGraw-Hill).
- Brown, L.A. and Sanders, R.L. (1981) "Toward a Development Paradigm of Migration, with Particular Reference to Third World Settings", in De Jong, G.F. and Gardner, R.W.

- (eds.), Migration Decision Making: Multidisciplinary Approaches to Micro-level Studies in Developed and Developing Countries (New York, Pergamon Press), pp. 149-185.
- Caldwell, J.C. (1969) African Rural-Urban Migration: The Movement to Ghana's Towns (Canberra, Australian University Press).
- Chan, T.H.P. (1981) "A Review of Micro migration Research in the Third World Context", in De Jong, G. F. and Gardner, R.W. (eds.), op. cit., pp. 303-327.
- Choir, J.H. (1984) "Urban to rural migration in Korea", in Goldscheider, C. (ed), Rural Migration in Developing Nations (Boulder and London, Westview Press), pp. 21-108.
- Connell, J. et al. (1976) Migration from Rural Areas: The Evidence from Village Studies (Delhi, Oxford University Press).
- Cox-George, N.A. (1973) Studies in Finance and DEvelopment The Gold Coast Experience 1914-1950 (London, Dennis Dobson).
- Dickson, K.B. (1969) A Historical Geography of Ghana (London, Cambridge University Press).
- Du Toit, B.M. (1973) "A Decision-Making model for the study of Migration", in Du Toit, B.M. and Safa H.I. (eds), Migration and Urbanization: Models and Adaptive Strategies (The Hague and Paris, Morton Press), pp. 49-76.
- Engmann, E.V.T. (1972) "Some Consequences of Population Movements", in Ominde, S.H. and Ejiogu, C.N. (eds.), Population Growth Economic Development in Africa (London, Heinemann Press), pp. 173-187.

- Forde, E.R. (1968) The population of Ghana: A study of the spatial relationships of its socio-cultural and economic characteristics (Evanston, Northwestern University).
- Goldfeld, S.M. and Quandt, R.E. (1972) Nonlinear Methods in Econometrics (Amsterdam, North Holland Publishing Co.)
- Goldscheider, C. (1971) Population, Modernization and Social Structure (Boston, Little Brown and Company).
- Goldstein, S. (1984) 'Foreword' in Goldscheider, C. (ed.), op. cit.
- Hagerstrand, T. (1957) "Migration and Area", in D. Hannerberg (ed.), Lund Studies in Geography Series B, No. 13, pp. 27-158.
- Hanushek, E. A. and Jackson, J.E. (1977) Statistical Methods for Social Scientists (New York, Academic Press).
- Harbison, S.F. (1981) "Family Structure and Family Strategy in Migration Decision Making", in De Jong, G.F. and Gardner, R.W. (eds.), op. cit., pp. 225-251.
- Hart, J.K. (1974) "Migration and the Opportunity Structure: A Ghanaian case Study", in S. Amin (ed.), op. cit., pp. 321-342.
- Hensher, D.A. and Johnson, L.W. (1981) Applied Discrete Choice Modelling (London, Croom Helm).
- Hill, P. (1977) "Ghanaian Capitalist Cocoa Farmers", in Konzacki, Z.A. (ed.), An Economic History of Tropical Africa (New Jersey, Frank Cass & Co.).
- Jones, H.R. (1981) A Population Geography (New York, Harper and Row).
- Lowry, I.S. (1966) Migration and Metropolitan Growth: Two Analytic Models



- (Los Angeles, University of California).
- Mazur, R.E. (1984) "Rural Out-Migration and Labour Allocation in Mali", in C. Goldscheider (ed.), *op. cit.*, pp. 209-288.
- McFadden, F (1979) "Quantitative methods for analyzing travel behaviour of individuals: some recent developments", in Hensher, D.A and Stopher, P.R. (eds.), Behaviourial Travel Demand (London, Croom Helm) pp. 279-318.
- Morrison, P.A. (1971) "Urban Growth and Decline in the United States: A Study of Migration's Effects in Two Cities", in Brown, A.A. and Neuberger, E. (ed.), Internal Migration: A Comparative Perspective (New York, Academic Press), pp. 235-254.
- Neter, J. and Wasserman, W. (1974) Applied Linear Statistical Models (Homewood, Richard D. Irwin, Inc.).
- O'Brien, R.J. and Garcia, G.H. (1971) Mathematics for Economists and Social Scientists (London, Macmillan Press Ltd.).
- Perloff, H.S. et al. (1960) Regions, Resources and Economic Growth (Baltimore, John Hopkins Press).
- Rossi, P.H. (1955) Why Families Move (Glencoe, III. The Free Press).
- Theil, H. (1971) Principles of Econometrics (New York, John Wiley and Sons).
- Williams, J.D. and McMillen, D.B. (1980) "Migration Decision Making among Non-metropolitan-Bound Migrants", in Brown, D.L. and Wardwell, J.M. (eds.) New Directions in Urban-Rural Migration (New York, Academic Press) pp. 189-211.

Wrigley, N. (1985) Categorical data analysis for geographers and environmental scientists (London, Longman).

#### Journals

- Addo, N. O. (1966) "Demographic Aspects of Urban Development in Ghana in the 20th Century", Paper presented at the First Population Conference, University of Ibadan, Nigeria.
- Adepoju, A. (1977) "Migration, Economic Opportunities And Occupational Mobility: A Case Study in Western Nigeria", The Quarterly Journal of Administration, Vol. 11, pp. 167-183.
- Bach, R.L. and Smith, J. (1977) "Community Satisfaction, Expectations of Moving, and Migration", Demography, Vol. 14, No. 2, pp. 147-167.
- Beals, R; Levy, M and Moses, L. (1967) "Rationality and Migration in Ghana: Review of Economics and Statistics, Vol. 49, No. 4, Nov., pp. 480-486.
- Becker, C.M. and Morrison, A.R. (1988) "The Determinants of Urban Population Growth in Sub-Saharan Africa Economic Development and Cultural Change, Vol.32, No.2, pp. 259-278.
- Bilsborrow, R.E. and McDevitt, T.M. (1987) "The Impact of Origin Community Characteristics on rural-urban out-migration in a Developing Country", Demography, Vol. 24, No. 2, pp.191-210.
- Bortei-Doku, E. (1974) "Strategies In Rural Development", Ghana Journal of Sociology, Vol. 7, No. 1, pp. 104-107.

- Brown, C.K. (1974) "Adoption of Improved Agricultural Practices in the Atebubu and Lawra Districts of Ghana", Ghana Journal of Sociology, Vol. 7, No. 1, pp. 80-103
- Brown, L.A. and Goetz, A.R. (1987) "Development-Related Contextual Effects And Individual Attributes In Third World Migration Processes: A Venezuelan Example", Demography Vol. 24, No. 4, pp. 497-516.
- Brown, L.A. and Longbrake, D.B. (1970) "Migration flows in intra-urban space:Place Utility considerations", Annals of Association of American Geographers, Vol. 60, No. 2, pp. 368-384.
- Brown, L.A. and Moore, E.G. (1970) "The Intra-Urban Migration Process: A Perspective", Geografiska Annaler, Series B, Vol. 52, pp. 1-13.
- Browning, H.L. and Feindt, W. (1969) "Selectivity of Migrants to a Metropolis in a Developing Country: A Mexican case study", Demography, Vol. 6, No. 4, pp. 347-357.
- Boateng, E.A. (1955) "Settlements in Southeast Gold Coast", Institute of British Geographers, Vol. 21, pp. 157-169.
- Clark, G.L. and Ballard, K.P. (1980) "Modelling out-migration from depressed regions: the significance of origin and destination characteristics" Environment and Planning A, Vol. 12, pp. 799-812.
- Cole, W.E. and Sanders, R.D. (1985) "Internal Migration and urban employment in the Third World", The American Economic Review, Vol. 75, No. 3, pp. 481-494.
- Costanzo, C. M. et. al. (1982) "An alternative method for assessing goodness-of-fit for logit models", Environment and Planning A, Vol. 14 pp. 963-971.

- DaVanzo, J. and Morrison, P.A. (1981) "Return and other sequences of Migration in the United States", Demography, Vol. 18, No. 1, pp. 85-101.
- Fields, G.S. (1979) "Place-to-Place Migration: Some New Evidence", The Review of Economics and Statistics, Vol. 61, No. 1, pp. 21-32.
- Fogarty, T. and Mehta, D. (1982) "On the Micro-economics of Rural to Urban Migration: A Conceptual Framework and some empirical observations", Seminar on Urbanization and Planned Economic Development in India, Present Scenario and Future Perspectives; Sept.20-21, New Delhi: Centre for Regional Development.
- Godfrey, E.M. (1973) "Economic Variables and rural-urban migration: Some thoughts on the Todaro Hypothesis", Journal of Development Studies, Vol. 10, No. 1, pp. 60-78.
- Greenwood, M.J. (1971) "A Regression Analysis of Migration to Urban areas of a less-developed Country the case of India", Journal of Regional Science, Vol. 11, pp. 253-262.
- Gustavus, S.O. and Brown, L.A. (1977) "Place attributes in a migration decision context", Environment and Planning A, Vol. 9, pp.529-548.
- Harris, R.N.S. and Steer, E.S. (1968) "Demographic Resource Push In Rural Migration: A Jamaican Case Study", Social and Economic Studies, Vol. 17, No. 4, pp. 398-406.
- Hirschman, C. (1976) "Recent Urban Trends in Peninsula Malaysia", Demography, Vol. 13, No. 4, pp. 445-461.

- King, J. (1978) "Interstate Migration in Mexico", Economic Development and Cultural Change, Vol. 27, pp. 83-101.
- Knight, J. (1972) "Rural-Urban Income Comparisons and Migration in Ghana", Bulletin Oxford Institute of Economics and Statistics, Vol. 32, No. 2, pp. 199-228.
- Lall, A. (1986) "Migration Behaviour of Settlers in Shanty Towns in India and Some Policy Implications: A Case Study from Chandigarh, India", Proceedings of the Eighth International Symposium on Asian Studies, 1986.
- Landale, N.S. and Guest, A.M. (1985) "Constraints, Satisfaction And Residential Mobility: Speare's Model Reconsidered", Demography, Vol. 22, No. 2, pp. 199-222.
- Lee, E.S. (1966) "A Theory of Migration", Demography, Vol. 3, No.1, pp. 47-57.
- Liaw, K.L. and Kanaroglou, P. (1986) "Metropolitan Elderly Out-Migration in Canada: Characterization and Explanataion", Research on Aging, Vol. 8, No. 2, pp. 201-231.
- London, V. (1986) "Ecological and Political-Economic Analysis of Migration to a Primate City. Bangkok, Thailand ca. 1970", Urban Affairs Quarterly, Vol. 21, No. 4, pp. 501-526.
- McHugh, K.E. (1985) "Reasons For Migration And Not", Sociology and Social Research Vol. 69, No. 4, pp. 586-589.
- Miller, E. (1973) "Is Out-migration affected by economic conditions?", The Southern Economic Journal, Vol. 39, pp. 396-405.

- Morrison, P.A. (1971) "Theoretical issues in the design of Population mobility models", Environment and Planning A, Vol. 5, pp. 125-134.
- Moss, W.G. (1979) "A Note On Individual Choice Models Of Migration", Regional Science and Urban Economics, Vol. 9, pp.333-343.
- Olsson, G. (1965) "Distance and Human Interaction", Geografiska Annaler, Vol. 47B, No. 1, pp. 33-43.
- Preston, S.H. (1979) "Urban Growth in Developing Countries: A Demographic Reappraisal", Population and Development Review, Vol. 5, No.2, pp. 195-216.
- Ravenstein, E.G. (1985) "The Laws of Migration", Journal of Royal Statistical Society, Vol. 48, Part 2, pp. 167-277.
- Sanderfur, G.D. and Scott, W.J. (1981) "A Dynamic Analysis Of Migration: An Assessment Of The Effects Of Age, Family And Career Variables", Demography, Vol. 18, No. 3, pp. 355-368.
- Shrestha, N.R. (1987) "Institutional Policies and Migration Behaviour: A Selective Review", World Development, Vol. 15, No. 3, pp.329-347.
- Sjaastad, L.A. (1962) "The costs and returns of human migration", Journal of Political Economy, Vol. 70, No. 5, pp. 80-93.
- Speare, A. Jr. (1971) "A Cost-Benefit Model of Rural to Urban Migration in Taiwan", Population Studies, Vol. 25, No. 1, pp. 117-130.
- Tarver, J.D. (1961) "Predicting Migration", Social Forces, Vol. 39, No. 3, pp. 207-213.

- Todaro, M.P. (1969) "A model of Labour migration and urban unemployment in less developed countries", American Economic Review, Vol. 59, No. 1, pp. 138-148.
- Toney, M.B. (1978) "The Simultaneous Examination Of Economic And Social Factors In Destination Selection: Employing Objective And Subjective Measures", Demography, Vol. 15, No. 2, pp.205-212.
- Wolpert, J. (1965) "Behaviourial Aspects of the decision to migrate", Papers and Proceedings, Regional Science Association, Vol. 15, pp. 159-177.
- Zachariah, K.C. (1966) "Bombay Migration Study: A Pilot Analysis of Migration to an Asian Metropolis", Demography, Vol. 3, No.2 pp. 378-392.

Government Publications

Ghana Population census reports (1970), Central Bureau of Statistics, Accra, Ghana.

VITA AUCTORIS

Name: Siaw Akwawua

Birth Date: December 12, 1949

Birth Place: Dwenase, Ghana

Education: Anum Teacher's Training College 1969

Anum, Ghana

Honours Bachelor of Arts 1976

Geography

University of Ghana

Post Graduate Diploma 1978

Population Studies

University of Ghana

Master of Arts 1990

Geography

University of Windsor