

THE 1966 MIGRATION SURVEY: A CASE STUDY OF
METHODS AND PROBLEMS OF SOCIAL RESEARCH IN GHANA

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The 1966 Migration Survey was carried out in the Eastern Region (ER) and Accra Capital District (ACD) of South-Eastern Ghana between July 8 and 31st. The objectives of the survey were:

- i) To inquire into some of the demographic and socio-economic characteristics of urban growth in these two regions;
- ii) To determine the role of internal migration in urban population growth and change; and also
- iii) to attempt to consider the implications of population growth and change in the urban areas in relation to the formulation of a possible population policy for the country.

The selection of the Eastern Region and Accra Capital District was based on two considerations, both of which were central to our study. First, evidence from the 1960 Population Census, Post-Enumeration Survey and other recent surveys, has shown that, whereas the ER is rapidly losing her population to other regions, the ACD, on the other hand, is continuously receiving population from all over the country. One of our aims therefore, was to find out the socio-economic and demographic effects of the migration trends observed in these two areas. In effect, we are interested in examining the conditions which gave rise to differential patterns of migration within areas of greatest attraction and those of relative decline, using these two regions as our laboratory. Secondly, these two particular regions

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combined are the most urbanised sections of the country; and one of our interests was to examine some of the social and demographic conditions of 'rapid' urban growth in these areas. Limited financial and other resources also influenced our choice of these regions; the survey areas were thus chosen to be as close as possible to the work centre of the investigator in order to minimize the cost of expenditure on the project.

b) Field Preparations

Field preparations started six months ahead of the actual field interviews. The first task was to consider the scope of the survey and, upon this, design a sample for it. It was considered that, since the survey sought to study patterns and characteristics of migration, a relatively large population should be selected. The scope of the survey as well as the sample design were determined after extensive consultations with statisticians and demographers in the Census Office and the University of Ghana. The survey was designed to cover a wide population that would include both migrants and non-migrants; again both urban and rural populations were to be covered in order to compare the conditions within the two areas.

c) Sample Design

The problem of sampling for the purpose of demographic and other social surveys is no more very serious in Ghana because the 1960 Census has broad divisions of the country which could be assembled and used as sampling frames. Another advantage from the census is that it provides a lot of useful basic statistical and demographic information on these divisions, which could serve as indices for determining sample size and selection. For the purpose of our survey, the 1960 Census Enumeration Areas (E/AS), were used as the sampling frame.

The first procedure consisted of computing migration indices for each of the E/AS and arranging them in descending order. The "degree of migration" or "migration

component" is defined as the proportion of the population in an E/A who were born outside the locality of enumeration. This arrangement of the EAs was done separately for ER and ACD, and also separately for urban and rural areas within each of the regions. The second step was to select a systematic random sample from each of the stratum. 15 EAs were selected from the urban and rural areas respectively.

Systematic Sampling: Procedure

Theory: Suppose a population consists of N elements of which n are to be selected. Suppose also that $\frac{N}{n} = K$, where K is an integer. Then a simple random start systematic sample is selected as follows:

- a) Choose an integer between 1 and K inclusive at random.
- b) If the selected integer is i , the elements of the sample are:

$$i, i+K, i+2K \dots i+(n-1)K.$$

Applying this theory to our situation, the sample was selected thus:

Strata	Region	N (i.e. Target E/AS)	n (i.e. Sample E/AS)	K	Integer chosen at ran- dom between 1 & K	Elements of Population (i.e. EAS) constitut- ing the sample
URBAN	AMC ⁺ (ACD)	272	9	30	10	10th, 40th, 70th, 100th, 130th, 160th, 190th, 220th, 250th.
URBAN	TDC ⁺ (ACD)	33	1	One integer between 1 & 33 taken at random	23	23rd
URBAN	ER	154	5	30	1	(1st)*, 31st, 61st, 91st, 121st, 151st
RURAL	ACD	116	2	58	36	36th; 94th
RURAL	ER	813	13	62	52	52nd, 114th, 176th, 238th, 300th, 326th, 424th, 486th, 548th, 610th, 672nd, 734th, 796th.

+ AMC - Accra Municipal Council
 + TDC - Tema Development Corporation) Accra Capital District

* 5 E/As required, therefore one was eliminated by random.

The maps for the selected E/As were collected from the Census Office and reproduced in duplicate; one copy was given to each enumerator to guide him around his survey area and the other copy kept in the records office. The author and his research assistant next conducted a reconnaissance survey in a few of the E/As, primarily to find out whether the physical boundaries of these areas were still recognisable. This initial tour of the E/As was found to be necessary for it was suspected that, after a period of six years, the boundaries of some of the E/As might have become obscured as a result of developments around them. This suspicion was found proved in a number of cases, especially in those areas in ACD urban where rapid physical developments had taken place since the census.

For example, it was discovered that some of the identification objects along the E/A boundaries, such as gutters, narrow lanes, paths or large trees had disappeared and been replaced by well-constructed streets. It was again discovered that the old house numbers that appeared on some buildings that served as E/A boundaries had been replaced with new ones by the City Council. These problems were less serious in the towns of the Eastern Region, where few major developments had taken place since 1960. In any case, the scale of these changes along the E/A boundaries was quite widespread; it was, therefore, decided that a minimum time of one day should be allowed for the enumerators to study their boundaries before they started the actual interviews. This decision proved useful in other ways; for example, as a result of this exercise, it was detected that wrong maps had been produced for two of the E/As. Those enumerators for the rural areas were given enough interval to study their E/As; the situation in the rural areas was rather quite different since enumerators had to walk over long distances to study their area boundaries and often this meant making inquiries simultaneously from the nearby villages as one moved along from one position to another.

d) Design of the Questionnaire

The questionnaire was designed in two parts. Part I was to obtain simple, basic, descriptive information on each individual member of the household. Two questions relating to rent paid by the head of household and number of rooms occupied by the household were also included for the head of household to answer. The questions on Part I were administered to the head of household; where the information sought could not be provided by this person, he was to be assisted by the other members. Part II was based on a 20% systematic random sub-sample of the households in each of the survey areas; this section obtained a much more detailed information on the nature of the migration process among adult members of the household aged 15 years and over. Part II questionnaire was to be administered to each adult 15+ in the 20% household sub-sample.

The length of the questionnaire was based on three main considerations: namely, financial and personnel resources available, scope of the study, and time factor. The financial problem encountered was quite serious; the amount of money made available by the University for the project was inadequate so that strict economy had to be applied at various stages of the running of the project. The planning and execution of the survey coincided with a period of serious political and financial changes in the country. The new military administration, which was installed after the 1966 February Coup, virtually halted government spending in a number of sectors, and drastically reduced University research grants. These financial difficulties did not, however, affect the scope of the survey in any serious sense; except that, as a result of this situation, one original plan to study seasonal migration was dropped. Indeed, considering the scope of the survey, one might remark that the cost of the entire survey was very modest.

The time factor was another important consideration; since the main focus of the survey was on migration,

it was reasonably felt that enumeration should be completed as quickly as possible in order to minimise the problem of high mobility affecting the population within this interval when the survey was being conducted. A time limit of 2-3 weeks was allowed for the field work.

The original plan was to conduct the field interviews in the same month as the 1960 PES (i.e. June) so that the results from the two sources could be made perfectly comparable. This plan could not be realised, simply because the personnel required for the interviews (students) was not available at this time.

e) Selection and Training of Interviewers

A total number of 45 interviewers, made up of University under-graduates (80%) and sixth-formers and secondary students (20%), was selected for training. Two University post-graduate students were employed as supervisors. Selection of the students was based primarily on whether they had any previous experience in the field of interviewing. Those who had conducted field interviews before were promptly selected; those without such previous experience were selected on the basis of the degree of interest expressed in the project. The latter criterion was rather subjective since a person could perfectly state that he was interested in a particular project but may not actually be as all that enthusiastic when he was put on the job. Experience has shown that quite a large number of University under-graduates who accept temporary posts as interviewers do so for the financial attraction of it and not necessarily for the interest they show in the survey projects on which they have been employed. These people invariably, produce very poor work; they sometimes stay at home and fill in questionnaire sheets from memory. These facts were at the back of the selection system, and the author took all possible precautions, at the early stages of the

selection, not to include such potential types of students in the final team. This precaution did not prove wholly successful; for example, a few of the students withdrew from the training after being in session for only one week, apparently to accept office work in one of the Ministries at Accra. It became necessary to find substitutes; these were given extra training to catch up with the original group selected. The dropping of those few students from the group of interviewers was probably a good thing; it is most reasonable to assume that these were the people who would have shown less enthusiasm for the work and it is most likely that they would have produced poor work in the end.

The training material consisted of a short manual which explained the objectives of the survey, definition of concepts, instructions as to whom to interview, and also procedures to be adopted for the solution of such problems as absenteeism and refusals, etc. Each interviewer was also given a list of historical events pertaining to the two regions; this was the original list compiled for the 1960 Census brought up to date by the author with assistance from historians. This list was to be used by the interviewers to estimate the ages of the population, particularly the adult members. Students were issued with strict instructions to make use of birth certificates wherever possible.

No formal attempt was made to translate the questions into the local languages. In the first place, this action would have involved extra cost and time which the author could not afford, given the prevailing financial and other circumstances. In any case, the questions were quite simple and, therefore, such an exercise would have been superfluous. A few hours were, however, spent during the training sessions at which attempts were made to translate some of the questions into these local languages. The procedure was quite simple: students who spoke any one language were grouped together to translate the questions into this language themselves. The aim was to

allow the students to achieve a consensus among themselves as to the final interpretation of the questions in the local language; this consensus would enable each person to follow the same procedure when it came to asking that particular question in the field.

Again, no organised pilot survey was conducted; instead, the students were sent into the field at the end of the training session to administer a few of the questionnaire to the households in the nearby villages around Legon, i.e. Madina, Okponglo and Christian Village near Achimota. Those who offered to go to Accra were encouraged to do so. One afternoon was spent on this work. The last two training sessions were devoted to discussions with the students concerning some of the main problems they encountered in the field. On the basis of the result from this semi-pilot work, a few of the questions from Part II were dropped; a few others were either re-worded or shifted to new positions on the list. For example, the question relating to income on Part II was placed next to the last question on the questionnaire. Questions on income often generate suspicion among respondents; and generally the subject is associated in the minds of people with the idea of taxation. Such types of questions should not be brought at the beginning of a questionnaire because it is likely to put off respondents who may then refuse to answer the rest of the questions.

Some of the common difficulties mentioned by the students were absent heads of households, problems of identification of households within the houses, refusals among certain groups of people (like teachers) to give answers to questions about their incomes, etc. Editing of the completed sheets was done in the classroom by the students, assisted by the supervisors and the author. No student was allowed to edit his or her own completed schedules. Instead each student edited schedules completed by someone else. The major errors detected at the time of the editing were inconsistent entries, omissions, and wrong entries against particular columns. A few incompleting questionnaires were also

returned to the office.

No payment was made to the students during the period of the training. It is most encouraging that despite this lack of financial incentive, the majority of the students nevertheless felt fairly enthusiastic about the exercise going on, and indeed attended the training sessions regularly. Training continued for 3 weeks at an average of 3 hours a day excluding Sundays.

f) Field Work

Field interviews started on July 8 and ended on July 31, 1966. A few of the large E/As, such as Nkaw-kaw and parts of Accra, were completed about ten days behind schedule. Students were posted to their respective stations on the morning of July 8. Actual allocation of the E/As was done on voluntary basis; no student was forced to go to a station for which he had previously shown disapproval. All those who went to the rural areas absolutely volunteered to do so. This group of students was paid a little extra as an incentive for going to these remote and rather difficult areas. Each person was responsible for his own accommodation and catering arrangements. Those who went into the village and small towns were given a short letter with which to introduce themselves to the chief of the settlement. Experience shows that the support of a village chief is absolutely essential for the successful operation of survey projects in most parts of Africa. The chiefs are important media through which the aims of a survey could reach the village/town population very quickly. Again very often these elders take direct responsibility for arranging better accommodation and catering facilities for field interviewers. Indeed two of the interviewers who worked in the rural areas were provided with accommodation by the chiefs in their own homes.

As already indicated, each student spent at least one day studying the boundaries of his E/A; those

in the rural areas were often assisted by local scouts who received a small fee for their short services. Arrangements for interviews were made by the individual interviewers themselves, and these varied according to circumstances and place of operation. Evenings were found to be most suitable for those in the towns, especially those in Accra/Tema. Interviewers could reach a large number of workers after 5 p.m. when most of them had returned home from work. Those in the rural areas also worked in the evenings, but the students often made good use of the early morning time between 6 a.m. and 8.30 a.m. before the farmers were ready to go into their farms. Sundays were the most suited days for enumeration in the towns as well as the rural areas; people normally stay at home on Sundays. Some of the students estimated that nearly half of their entire enumeration was done on the 3 Sundays that fell within this interval when the survey was conducted.

g) Field Observations and Some Problems

It is remarkable to note that the political situation in which the country found itself at the time of the survey did not have any adverse effects on the survey. The field operations went on well; those problems which arose were mainly technical and physical and bore no relation to the internal political atmosphere. Of course, as indicated earlier in this paper, a large section of the population of the country are now quite familiar with surveys; for this reason one often encounters very few difficulties when enlisting their support for such types of enquiries, particularly if the proper rapport is established with them or with their elders prior to the actual field exercise.

Strict field supervision was carried out by the two post-graduate supervisors as well as by the author in most of the EAs especially those in the towns. Only a few of the rural areas could be visited by the supervisors; this was partly because the workload was found to be rather heavy and also partly that

some of the remaining sample areas were quite remote from the nearest motor road. These areas of operation were most affected because there was no adequate finance to employ additional supervisors to visit there. Students who went to these remote places had volunteered to do so; some of these students were of rural origin and came from relatively poor homes and probably because of this background they did not feel disinclined to go and work in these places for money. A few of these students in fact came from villages quite near to their work place and may have felt it an advantage that way.

The supervisors, together with the author, carried out complete editing of Part I of the questionnaire in the field; only the first few sheets of Part II could be edited this way. There was no time available in the field to complete the entire editing of this section; the rest of the work was therefore left for the office. The author was responsible for the overall supervision of the field work, including the supply of stationery, etc. to the field interviewers.

There was very close liaison between the author and the two supervisors; this was necessary to achieve a smooth transition of the work in the field. The author visited almost all the enumerators in the urban areas; this particular aspect of the work involved quite extensive travelling by car, totalling over 8,000 miles within a period of three weeks. The author carried out field supervision simultaneously with office administration; for the most part, therefore, travelling was done in the early mornings and late afternoons when the enumerators could be caught at work.

A number of problems were encountered in the field work. Two of the E/As, one urban and the other rural, were abandoned after enumeration had proceeded for three days because the population refused to continue their support for the project. The selected urban E/A, incidentally, turned out to be a military barracks; as a defence area it became necessary that the author should seek official permission from the Ministry of Defence to

enter the area. This permission was granted; on the other hand the heads of households still refused to give any information on their household members because probably they felt that they were not obliged to do so. Two important factors contributed to the failure in the rural E/A. This particular settlement is located right in the centre of a rich diamond area, and the community living here contain a large number of illicit diamond dealers (mainly Nigerians, Nigeriennes and other foreign immigrants). These illicit dealers obviously became suspicious of the interviewers, and felt that they were really detectives.

Some local political disturbances were also taking place in this settlement around the same time that the survey was being carried out. Two royalists had been contesting for the stool of the village which had been declared vacant by the destoolment of the legal chief some weeks earlier; this situation had given rise to serious political riots among the supporters of the two contestants. In these circumstances, there was no recognized leader of the village who could be contacted to enlist his support for the survey. The author visited the settlement three times within one week to try and find some way of solving the problem with some of the elders. All the three attempts failed. The enumeration was therefore completely abandoned. 14 urban and 14 rural E/As were finally covered in the survey.

Apart from these two "large-scale" refusals, the population as a whole answered the questionnaire quite satisfactorily. There is no evidence of deliberate refusal on the part of the heads of households to answer the questions; only particular items of information were sometimes found unanswered by these persons. But this situation often arose because the heads did not know the exact answer to such questions. All those information for which data could not be provided in the survey were treated in the final analysis as "Not Stated".

Another problem which often arose in the field was absentee heads of households. Some of the workers in Accra were found to be daily commuters between the city and Tema, 18 miles away; there were others too who travelled to work on foot up to distances of 10 miles or more. A number of these persons were one-person households, and often bachelors who spent most of their time outside the home and returned to sleep late in the night. Sometimes two or three recalls were made by the enumerators in order to interview them; in the majority of the cases, however, these persons could not be caught in their homes. A few extreme cases were met in which persons left home at 4 a.m. and returned at mid-night every day throughout the week. Some of the house inmates were often not prepared to give any information on such absentee household heads; in certain cases these inmates were suspicious themselves about these heads and some had even felt that they were buglars or persons of some doubtful character.

Often in households where the husband was absent at work, the wife and other members of the household provided the required information, including that of the husband himself. The young school-children members were often most enthusiastic about the exercise going on, and sometimes assisted the head by providing some of the necessary information about themselves or their brothers/sisters.

Some of the students had smaller E/As to tackle than others, and therefore, finished well ahead of the time allowed for the field exercise. Some of these students were brought in to help the other friends operating in the larger areas. This system worked quite smoothly, and helped to speed up the field exercises.

All students submitted their field returns to the office as soon as they completed work in their areas. Each student was asked to include a short report on his observations during the field exercise, including problems, changes along the E/A boundaries,

general support received in the field from the population etc. The enumerators who worked in the rural areas related most of their difficulties to physical problems in the field, such as poor accommodation, bad food and dirty water, difficult transport and delays caused by heavy rainfall etc.

h) Field Re-checks

Field re-checks were carried out in a number of the urban E/As, particularly those in Accra, one week after the close of the main survey. This action was decided upon after the author had conducted a physical count of the population on Part I Sheet. This exercise revealed that the population in some of the E/As was grossly below the figures recorded for the same areas at the time of the 1960 Census. Three of the best enumerators in terms of efficiency, hard work and dedication to duty, were re-employed for two weeks to carry out the field re-checks. This second survey resulted in additional households being recorded for the E/As; but in spite of these new additions the final population figures obtained were found to be no more significant from those originally submitted by the enumerators.

i) Processing of the Data

Part I of the questionnaire was edited quite extensively at source (i.e. in the field) by the supervisors and the author. Very little editing work was therefore carried out on this section in the office. The exceptions were the schedules from the remote rural areas which could not be edited in the field. Almost all the editing work on Part II was carried out in the office. On the whole the quality of enumeration on Part II was less satisfactory; a number of vital information was not recorded.

Coding instructions were prepared in advance of the completion of the field work. Because of lack

of sufficient funds, the processing of the data proceeded very slowly. Only one research assistant was initially employed on this aspect of the work; it was not until some months later before the Population Council, New York, generously granted some funds to assist in this work. This enabled one more assistant to be employed on the coding exercise. This grant also allowed the author to employ the services of the Central Bureau of Statistics for punching and programming of the survey data. Unfortunately, the programming part of the work was the slowest; it took almost 12 months for the Bureau to complete this service. There was virtually no other department which could offer this service; the author therefore had no alternative than to rely on the Bureau. This is an example where lack of basic service for programming survey data could raise the cost of such operation and also cause unnecessary delay to the analysis of the results. Another problem with the service at the Bureau is that the computer cannot provide percentages or work out indices; only absolute figures can be derived from this machine. The implication is that the research worker who uses this machine has to do some extra work afterwards. For example, he has to take his data raw from the computer and compute his indices manually on calculating machines. This procedure also increased the cost of the survey, and also caused some delay in the processing of the results.

j) Appraisal of the Quality and Reliability of the Survey Data

Part I was designed to give the author the maximum scope of studying the details of migration streams, migration structure, migration patterns and the characteristics of migrants as well as non-migrants in the survey areas. The questions in this section were very simple; they could therefore be fairly easily understood by both the enumerators and the respondents. It is reasonable to assume that the information collected from this part of the survey was probably fairly reliable. There is one reservation;

possibly age records for the adult population were inaccurate. The use of local historical events to estimate age of adults is always subject to errors; it is also well known that some people in Ghana round their ages to the nearest even number. Age records for the younger population were probably less defective; a number of parents were able to produce birth certificates for their children whilst the estimates for the rest were also less difficult than the adults since one could match up fairly easily the ages of children of known ages with those of unknown ages living in the same households.

One objective for carrying out the survey could not be fulfilled at the end. Since the enumeration was to cover the entire population of the E/As, it was felt that this would create opportunity to compare the total population in 1966 with the total recorded by the 1960 Census. The ultimate objective was to estimate the rates of population growth for the different sample areas within the interval. Unfortunately it was found that the two population figures did not agree; the final figures obtained from the survey were between 5% and 20% lower than the 1960 Census figures. This was quite unexpected. Only three of the urban E/As recorded substantial increases in their population as compared with 1960. This particular situation was brought to the attention of the Census Office. This office, incidentally, had just initiated a sample survey with the objective of making estimates of population growth since 1960. This survey was conducted in September 1966. It is remarkable that, according to unofficial information from the Office, this survey also unexpectedly returned considerably lower figures for some of the E/As enumerated. According to reliable sources, field checks which were later carried out returned additional population figures which apparently were left out by the first survey. This result was achieved after a considerable period of extra field-checks.

The initial population figures returned by these two surveys may lead us to make the following comments

on our own work:

- a) In the first place, it is quite reasonable to say that the 1966 Migration Survey was, in some respects, under-enumerated. As we have already noted, field-checks discovered that some of the households were left out by the original enumerators. Still more of these households may have been missed in this second attempt.
- b) Secondly, it is possible that emigration had occurred from some of the EAs into other places. It is suspected that this out-migration occurred to a much greater extent in the rural areas as compared with the towns. On the other hand, it is also suspected that the 1966 February Coup produced a situation whereby a number of people emigrated temporarily from the towns, particularly Accra, back into their villages in the regions. This particular situation probably arose because of the large-scale retrenchment of labour which occurred in the urban economy in response to Government cuts in development expenditure.
- c) In the third place, it is suspected that the 1960 Census itself was over-enumerated.

Further, the fact that two of the original sample E/As were dropped from the list may have resulted to some bias in the sample estimates. There is good reason to believe that the characteristics of the population in the two E/As in which enumeration was abandoned are quite different from the majority of the others. The rural E/A is an important mining area; a considerable number of the labour force population were therefore probably migrants working in this activity. Most of the workers in this activity were immigrants in contrast to the indigenous people who often worked in the field of agriculture. Only one other settlement was a mining area within the rural sample. The urban E/A which dropped out is an army barracks, so that the majority of the labour force in the area are military personnel (classified as uniformed service in the final analysis).

This E/A is also likely to contain a certain high proportion of migrants.

In spite of these observations on our survey, we consider that the final data obtained came out quite well and are of the type to be expected. The quality of the data seems to be reasonably high, and the migration patterns revealed by the survey give a reasonable view of some of the dynamics of internal migration in this region.¹ In the analysis of the data carried out elsewhere, it was assumed that the population recorded from the survey was under-enumerated. We were not able to estimate this level of under-enumeration because it was felt that anything of the sort will be a matter of conjecture since a number of complex factors together contributed to this situation.

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1. See Addo, N.O. Dynamics of Urban Growth in South-Eastern Ghana. Ph.D. (External Thesis presented to the University of London, July 1969. pp.345.



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