# REPUBLIC OF GHANA STATISTICAL SERVICE

# GHANA LIVING STANDARDS SURVEY

# DATA ENTRY OPERATOR'S INSTRUCTION MANUAL

Sampling Survey Section Analytical Studies and Development Division August 1987

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#### 1. INTRODUCTION

#### THE GHANA HOUSEHOLD SURVEY PROGRAMME

As a result of a series of discussions with representatives of the United Nations Economic Commission for Africa and the World Bank, the Statistical Services set up the Ghana Household Survey Programme, whose long-term objectives are:

- 1. To provide the Government of Ghana with the ability to monitor the effects of the Economic Recovery Programme on Household living standards; and
- 2. To establish a stock of household and community data capable of supporting in-depth research in a variety of important policy areas.

The Ghana Household Survey Programme is an initial five-year programme, the first component of which is the Ghana Living Standards Survey (GLSS). The GLSS takes a holistic view of the living conditions of households living in Ghana, in the sense that it looks at the whole spectrum of elements that affect living conditions in one and the same survey. The other component of the Ghana Household Survey Programme will emissist of a series of detailed in-depth survey on key elements of living standards one year after another.

#### OBJECTIVES OF THE GHANA LIVING STANDARDS SURVEY

The principal objective of the Ghana Living Standards Survey (GLSS) is to make available basic data on the living standards of households on a montinous basis as well as changes in such living standards over time.

The key elements of living standards measured by the survey are:

- household income and expenditure;
- health and education;
- employment and other productive activities;
- demographic characteristics and migration;
- housing:
- nutritional status.

The information gathered is expected to improve the planning of momic and social policies in Ghana and to assist in evaluating the matter of policies. It should enable decision-makers to:

- a. identify target groups for government assistance;
- b. construct models to simulate the impact, both overall and on individual groups, of the various policy options; and
- c. analyse the impact of decisions already made and of the current economic situation on the living conditions of households.

The survey will thus meet the urgent needs of a number of users, unluding the Ministry of Finance and Economic Planning, Ministry of Sciculture, Ministry of Education other agencies.

#### METHODOLOGY OF THE SURVEY

To meet the objectives of the survey, it is proposed to survey ,200 households every year. The households were so selected as to rovide a self-weighting sample of all non-diplomatic households living n Ghana by means of a two-stage design with an in-built procedure for eplacement of non-response.

First, the country was divided into three Ecological Zones, namely coastal, Forest and Savannah. The 13,000 enumeration areas (E.As) in these Zones were stratified into urban, semi-urban and rural. Two undred (200) of these enumeration areas or primary sampling units PSUs) were selected with probability proportion to household size. Ouring the the second stage, a cluster of 16 households was chosen from each PSUs by a random design to serve as the survey sample.

In order to follow changes in the living standards of the same louseholds while ensuring that the data collected would be kept bermanently up-to-date, half of the sample will be retained each year, while the other half will be replaced with an equal number of louseholds.

1. In the 1984 Ghana Population Census an urban area was defined as a locality with a population size of 5,000 or more inhabitants, whilst a semi-urban area was classified as any locality with a population size of 5,000 or more but less than 5,000 and a rural area as any locality with population size of less than 1,500.

Four types of questionnaires have been developed, namely,

- \* A household qustionnaire addressed to household members, to be completed in two rounds, with a two-week interval between;
- \* A community questionnaire dealing with the locality itself, aimed at identifying the economic infrastructure, education and health facilities existing in the villages;
- \* A price questionnaire for collecting prices of commodities in the local market;
- \* An anthropometric questionnaire for collecting information on weights and heights of all members of the household.

The following precautions have been taken to ensure that data are of consistent quality and are processed without delay:

- \* The questinnaires are pre-coded to eliminate the very slow and tedious coding process, which often is liable to various types of error.
- \* Micro-computers will be installed in all data collection centres located in eight regional offices of the Statistical Service namely, Accra, Kumasi, Secondi-Takoradi, Koforidua, Sunyani, Ho, Cape Coast and Tamale to enter the data close to the place where they are collected.
- \* A software programme has been desingned to check the data automatically to detect inconsistencies, so that any errors can be corrected when the interviewer visits the household for Round Two of the survey.
- \* Supervision will be closed, with one supervisor for one anthropometrist, two interviewers and one data entry operator.

#### ORGANIZATION OF THE SURVEY

The Ghana Living Standards Survey will be conducted by a Project Directorate assisted by a staff of technical officers and ten data collection and entry teams based in eight regional offices of the Statistical Service. A micro-computer will be installed at each of the eight regional branch offices for immediate entry of data from all the questionnaires completed by each team. Two teams will be based in Accra and Kumasi for an urban team and a rural team. The decentralization of the data entry operation, which is the first time in the country's survey history, will thus mean increased efficiency in the data collection and data processing aspects of the survey.

The PROJECT DIRECTORATE is composed of six members, namely, The Deputy Government Statistician, who is the Project Director and therefore responsible for the administration of the survey and the setting of its broad guidelines; he directs the work of the Sections, authorizes expenditures and makes the necessary contacts for the smooth running of the project. He is responsible for the conduct of the survey The Deputy Project Director, who assists the Project Director in the conduct of the survey in the field. He keeps in touch with the survey teams, and sees to it by frequent visits to the field that the instructions for completing the questionnaires are followed. If technical or other problems arise, he must be ready with prompt and appropriate solutions.

Two Project Computer Specialists who are concerned with the design of the data entry software and the data processing programs. They are responsible for ensuring that the supervisors and data entry operators follow the instructions for running the programs and for the efficient use of the micro-computers.

The Statisticians whose task is to assist the Deputy Project Director. The Project Directorate is assisted by a staff of two technical officers (Statisticians) and a typist at the Head Office, and the collection and entry teams at the regional level.

Each of the ten DATA COLLECTION AND ENTRY TEAMS consists of six members:

- A Supervisor, who is the team leader and responsible for overseeing, monitoring and where necessary correcting the work of the two interviewers, the data entry operator and the anthropometrician.
- In addition, he is responsible for managing the team's equipment, vehicle and funds. He acts as the representative of the Project Directorate at the regional office.
- Two interviewers, who must each conduct interviews with 160 households in the course of the year, while keeping to the set timetable.
- A Data Entry Operator, responsible for entering the collected data in the micro-computer.
  - Anthropometrician, responsible for taking the weights and heights of all members of the household.
  - i Driver, whose duties are to drive the members of the team from the regional office to the place where the survey is being carried out.

#### THE RELATION OF DATA ENTRY OPERATOR WITH OTHERS.

You are part of a team comprising of a Supervisor, who is the leader, two interviewers, an Anthropometricist, a driver and yourself.

In addition, as you are permanently based at a regional office of the Statistical Service, you will deal with its staff as well.

In this chapter your relations with those various people will be explained to you.

The Supervisor is the leader of your team, and as such you should respect him and follow his instructions.

He will help you with your work and make sure that you are following instructions of the project directorate.

He will submit regular reports to the project directorate. If you have any problems, consult the supervisor first for assistance. If he is unable to resolve the problem he will bring the matter to the head of the regional office or the project directorate, depending on its nature.

You can contact someone else when the supervisor is away and you cannot wait for his return - this may occur for example, when the computer is down or if you are ill. In such instances, you should first inform the regional statistical officer and then inform the project directorate immediately. The best person to contact is project computer specialist, but you can speak to any member of the project directorate.

#### Head of the regional office

The head of the regional office is the representative of the Government Statistician in your region, and as such you should respect him or her.

Normally, you will not have any direct contact with him, rather your supervisor will be in contact with him.

You will deal with him only when there is an urgent problem and the supervisor is away. In that instance, as said above, you should inform him and ask how to alert the project directorate in Accra yourself.

#### Other staff at the regional office.

Strictly speaking, you will have no relations with other staff of the regional office in your work. You are all of course employees of the Statistical Service and work at the same regional office. Therefore there should be courteous and cordial relations all around to the benefit of your work.

The data entry operator has two basic duties:

- entry of data from questionnaires, and
- handling of equipment and documentation.

#### ENTRY OF DATA FROM THE QUESTIONNAIRES.

The entry of data consists of putting all data from the distinguished and running a number of computer checks, that after any errors are corrected the diskettes contain clean data.

It is therefore important that a number of checks be made on your work, since the success of the survey depends on the quality of the data and their safe-keeping.

The supervisor oversees the data entry checks and the handling of computer hardware and documentation.

#### VERIFICATION OF DATA FROM QUESTIONNAIRES.

In order that the supervisor can make this check, you will submit he result of your work each week, including at least:

- a three-part printout per questionnaire (one part summarizing the sections entered for each questionnaire, the second listing all sections entered, and the third giving the results of the consistency checks between sections), i.e. 16 printouts per round.
- 9 diskettes (3 "production" diskettes, 3 "first backup" diskettes, and 3 "second backup" diskettes) and
- 16 questionnaires.

#### SUMMARY OF SECTIONS ENTERED.

In this part of the listing you will have the complete list of sections entered for a given questionnaire. For each section you will find the number of records entered and a symbol indicating whether or not that section contains incorrect records.

#### THE PRINTOUT OF ALL DATA ENTERED.

This part lists all data entered in each section of the household. In this printout, inconsistent fields are circled in dark ink.

In principle, the errors and inconsistencies shown should not result from the data entry, since errors are dectected from data entry and it is your job to correct them by rechecking the questionnaire. You will enter the data that the program flags as incorrect only when the data are given as such in the questionnaire.

#### THE RESULT OF THE CONSISTENCY CHECKS BETWEEN SECTIONS.

This part gives the results of the comparisons made between lines of a section or between different sections of the questionnaire. For example, we regards the ages and relationship of individuals in the household rester, there may be contradictions between the data given for two prople. Someone's mother may be given as younger than that person or may not be shown as female; or there may be contradictions in the data provided for spouses, etc. All these will be indicated in this part of the listing.

#### DISKETTE VERIFICATION.

Every day you will check the content of all diskettes containing ata you have entered. Particularly, you will verify the content of the erifying diskettes, from which the others are copied. This diskette hould show all the households that you have entered for a given cluster.

The contents should show the numbers of all households for which you ave entered the data in the cluster. If this is not the case, you either ave the wrong diskette or the data have been lost. Look for the proper iskette or re-enter the lost data.

#### CARE OF THE COMPUTER AND DOCUMENTATION.

Care of the computer hardware and documentation consists of roperly maintaining the micro-computers and the printer and storing the uestionnaires, diskettes and printouts.

#### CARE OF THE COMPUTER.

You have to make sure that both the computer and the printer are:

- Turn off and unplugged after the end of the work session; protected by the special covers designed for them.
- Kept impeccably clean.
- Used normally, i.e. not maltreated.

In general the computer and the printer should be protected from ast and heat. Make sure that the doors and windows are always closed.

You and your team supervisor are the only two persons who should use he machines. Under no circumstances should you let other people use the omputer and you should not use the computer for any purpose other than nary the data for GLSS.

#### CONFIDENTIALITY OF THE DATA.

The qustionnaires contain information on selected Ghanaian ousehold, who agreed to provide these data because the Ghana tatistical Services pledged to keep them confidential.

Everybody working at GLSS should take this into consideration. You ust therefore take particular care of all the qustionnaires, computer rintouts, and even the contents of your computer screen. All these must managed with discretion. No person, other than the GLSS staff should callowed to inspect these materials.

#### MANAGEMENT OF DOCUMENTS.

The documents you will handle are the printouts, diskettes and testionnaires. These should be put in order by cluster and, within a ten cluster, by household number. You should particularly ensure that illing is meticulous, as this will make retrieval easier.

#### SENDING DISKETTES TO ACCRA.

After entering data for a whole cluster, you will give your approvisor the complete set of document for the cluster: During the reject Directorate missions to the R.O., all these documents, except he first backups diskettes will be taken to Accra by the responsibles. On will only keep at the R.O. the first backup diskettes, until your opervisor indicates.

### 3. ORGANISATION OF DATA ENTRY

Below is a suggested outline for organising a standard half - day of ork:

- 1. Activate the system.
- 2. Format a diskette if necessary for a given household.
- 3. Enter the correction for round 1, if any.
- 1. Enter the data from the questionnaire for the household.
- 7. Start the program to check for consistency.
- 3. Backup the diskette containing the newly entered data.
  Operations 3,4,5, and 6 are to be repeated for each household.
- . End of session.
- 3. Management of documents.

#### COMMANDS NECESSARY FOR HANDLING DISKETTES

DIR (directory): Use the DIR command to find out what files are on a diskette - perhaps because you need to find out how a carticular filename is spelled, or because you cannot recall what's on a widom - used diskette.

#### Procedure:

- a) Make sure the A> is displayed.
- b) Insert the diskette that has the files you want to list in drive A (top drive).
- c) Type dir a: To list the files in drive B insert the diskette in the drive and type:- dir b Press ENTER

After the files have been listed, DIR display the amount of free space left on the diskette (in bytes).
After all the files are displayed, the DOS prompt A> is

displayed.

#### 2. FORMAT.

Use the FORMAT command to prepare a diskette for use. FORMAT checks the diskettes for bad spots, and builds a directory to hald information about files that will eventually be written on it. When a diskette is new, it must be formatted before you can use it.

#### Procedure :

- a) Insert the SYSTEM diskette in drive A.
- b) Make sure DOS is ready and A> is diplayed.
- c) Type :-

#### format b:

- d) Press ENTER; This message is displayed.

  Insert new diskette in drive B
  and strike ENTER when ready.
- e) Insert the diskette you want to format in drive B.
- f) Press ENTER

The formatting procedure begins and head and cylinder numbers appear on the screen. These numbers keep changing as formatting progresses.

When the diskette is formatted, you see the message;

format complete xxxxxx bytes total disk space xxxxxx bytes available on disk

format another (Y/N)?

g) Type:-

N to end the FORMAT command. Now the DOS prompt A> is diplayed, and your diskette is formatted and ready to use.

Y to format another diskette. (Repeat the FORMAT procedure starting with step e).
WARNING: If you format a diskette that contains information, the information is erased.

#### DISKCOPY:

Use the DISKCOPY command to make a copy of an entire diskette on another diskette. Thus you can use the copy for your operations and store the original in a safe place.

Procedure:

- a) Insert the DOS diskette in drive A.
- b) Make sure DOS is ready and A> is displayed.
- c) Type :-

diskcopy a: b:

- d) Press ENTER; This message is diplayed:
  Insert SOURCE diskette in drive A.
  Insert TARGET diskette in drive B.
  Press any key when ready.
- e) Remove the DOS diskette from drive A
- f) Insert the SOURCE diskette in drive A
- g) Insert the TARGET diskette in drive B
- h) Press any key

The in - use lights come on alternately as the SOURCE diskette scopied to the target diskette. Then this message is displayed:
Copy another diskette (Y/N)?

Type:-

N to end the DISKCOPY command. Now the DOS prompt A> is lisplayed, and the SOURCE diskette is copied. Remove the copy. Label and date it using a felt-tip pen. Store the triginal diskette in a safe place.

Y to copy another diskette. Repeat the DISKCOPY procedure tarting with step f.

#### . DISKCOMP (comparing diskettes) :

Use the DISKCOMP command to compare the information on one diskette to the information on another diskette. Usually you would use DISKCOMP after you have used the DISKCOPY command to make sure that the copied diskette is identical to the priginal diskette.

#### Procedure:

- a) Insert the DOS diskette in drive A
  - b) Make sure DOS is ready and A> is displayed
  - c) Type:-

#### diskcopy a: b:

- d) Press ENTER: this message is displayed:
- e) Remove the DOS diskette in drive A.
- f) Insert the SOURCE diskette in drive A.
- g) Insert the TARGET diskette in drive B.

In - use lights come on alternately as the diskette are  $_{ t pmp}$ ared. Then this message is displayed:

compared ok

compare more diskette (Y/N)?

Note: If the diskette do not compare, repeat the DISKCOPY and ISKCOMP procedures.

i) Type :-

N to end the DISKCOMP command. Now the DOS rompt A> is displayed, and the source diskette has been compared to the arget diskette.

Y to compare more diskettes. (Repeat the DISKCOMP procedure tarting with step fand g).

RENAME (changing the name of a file):

The RENAME command lets you hange a file's name. It is useful if you want to refer to a file by a lifterent name.

#### Procedure:

- a) Make sure DOS is ready and A> is displayed.
- b) Insert the diskette that contains the file you ant to rename in drive A.
  - c) Type:-

Rename a: file1 file2 substitute the name of the file you want to rename for file1 and the new name for file2. To rename a file in drive B, type; rename b: file a file b.

d) Press ENTER.

After the file is renamed the DOS prompt A > is diplayed.

#### PACE OF WORK

You should enter 16 household per week, in addition to making any crrection for questionnaires already entered. This is critical. If you not keep this pace you will hold back the entire survey because the upervisor need to have the results from the computer checks before entinging the survey for a cluster already surveyed.

Thus, the minimum average is 4 half-questionnaires entered per day. on should however enter more to meet any contingency.

Regardless of the problems that arise, you should do your utmost to later the 16 half-questionnaires for the weekly cluster.

## DISTRIBUTION OF HOUSEHOLDS IN A GIVEN CLUSTER ON THE DISKETTES

Expense in the second second in the second s

the first diskette will be used for entering the first 8 households in the cluster.

the second will be used for the other 8 households.

If a single diskette cannot hold the data for a group of eight paseholds use a second one for the remainder; you will then have three iskettes for the cluster instead of two.

#### BACKUP OF THE DATA DISKETTES

he diskettes used for entering data are called "production" diskettes. As hey can be damaged, you must make two copies of each one. Use the ISKCOPY command (explained earlier) to do the backup.

You will thus have three copies of each diskette; i.e the production iskette and two duplicates. The first copy of the diskette is called he "first backup diskette". The second is called the "second backup" iskette.

Since each of these two diskettes is an exact copy of the production iskette, they can be used should a production diskette be damaged. This ensures proper safeguards in the preservation of data.

You can see therefore why this operation is so important and has to be one after each household is entered. Otherwise, you will have to e-enter an entire household or even eight of them if the diskette is lamaged.

#### IDENTIFICATION OF DISKETTES BY LABELS

ou give each diskette that you use for entering data a label. Below is n example of the two labels that must be affixed to each diskette to dentify it.

Cluster 11, ACCRA Round 1: 15/8/87 Round 2: 06/9/87 SECOND BACKUP ADOTEY AMOAFO Cluster 11, ACCRA

Households: 1,3,5,7,9

14,18,20

#### USE OF THE RESULTS OF DATA ENTRY

#### rintouts :

Each week you will turn in 16 printouts produced from the sunsistency controls to the supervisor. These printouts are very mortant for error correction.

#### uestionnaires:

You will also give the 16 questionnaires to the apervisor. For convenience, put the printouts inside the corresponding mostionnaires.

#### Dishettes:

Lastly, you will give the supervisor, as appropriate, 9 leastles, (3 production diskettes, 3 first backups, and 3 second sections).

When a cluster has been entered in full, the supervisor will send the Howing to the project directorate in Accra.

The lastest 16 printouts for the cluster.

The 16 questionnaires.

The 2 or 3 production diskettes.

The 2 or 3 first backup diskettes.

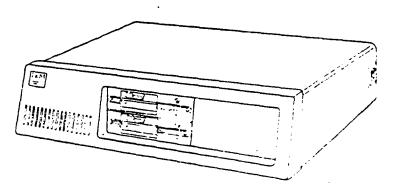
You will retain the other printouts and diskettes.

#### 4. ABOUT THE MICROCOMPUTER

The IBM personal computer XT is a system with a keyboard, and two diskette drives. The system unit is the central part of your computer and supports a variety of options. The keyboard, which is used to send data to your system, is attached by a coiled cable. The diskette drive installed inside your system unit can read data from a diskette and record data on a diskette. Your monitor screen is monochromatic, meaning that only one colour, Green is used. It has twenty-five (25) lines and eighty (80) columns.

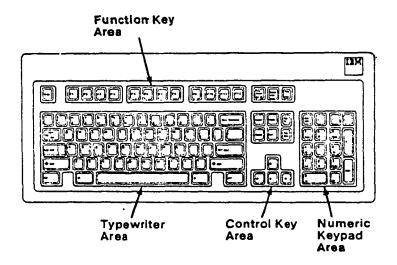
# System Unit

The main part of your IBM Personal Computer XT is the system unit. It processes data and controls the operations of your system through a set of instructions called *software* or a *program*. The IBM Personal Computer XT comes with an installed program language called IBM BASIC. A wide variety of programs are available from your dealer.



The keyboard is divided into four sections: the typewriter area, the function keys, the numeric keypad, and the control key area.

Note: The 101-key keyboard is used in these examples. The keytop characters for the 102-key keyboard are shown in the "Keyboard Templates" section of this manual.



# Typewriter Area

Most of the keys are typematic; that is, they repeat as long as you hold them down. The keys in the typewriter area are similar to those of a standard typewriter with the following exceptions.

There are two home row identifiers. These identifiers are horizontal ridges located on the F and J keys that allow you to locate the home row without looking at the keyboard.



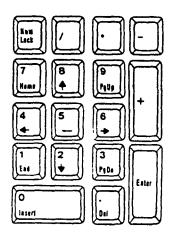
# **Function Key Area**

Twelve function keys, above the typewriter area, are under program control. Their operation is defined in your operating-system or application-program manual.



# Numeric Keypad Area

Pressing the Numeric Lock (Num Lock) key one time switches the cursor keys to number keys, and the shift keys work in reverse. While in the Num Lock mode, the shift key must be held down to use the numeric keypad as cursor control keys. The keypad is arranged like a calculator to save time when typing many numbers. Pressing Num Lock again returns keys 0 through 9 to cursor control keys.



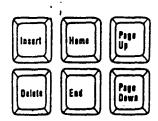
The numeric keypad has an identifier on the 5 key. This identifier is a horizontal ridge located on the key that allows you to locate the center of the numeric keypad without looking at the keyboard.

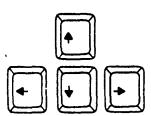


# Control Key Area

Operate November

The control keys are used for cursor and program control.



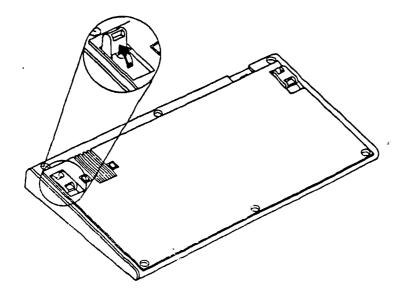


The cursor controls are separate from the numeric keypad and function the same as the cursor controls on the numeric keypad. These keys function as cursor controls only, and are not affected by the Num Lock key.

# Keyboard Height Adjustment

You can adjust your keyboard to two positions for typing comfort.

To adjust, turn your keyboard over and set both keyboard legs to the desired position.



# bout Diskettes

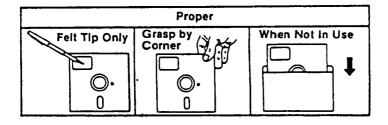
A diskette is a 5-1/4 inch magnetic disk inside a protective plastic jacket. Diskettes are used to store data.

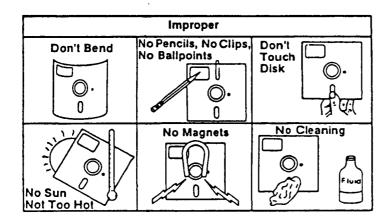
Your selection of the correct diskette is *important* to the successful operation of your IBM Personal Computer XT.

## Diskette Care

375-

The figures below show proper and improper ways of handling your diskettes. Proper handling will greatly reduce the possibility of damaging them.

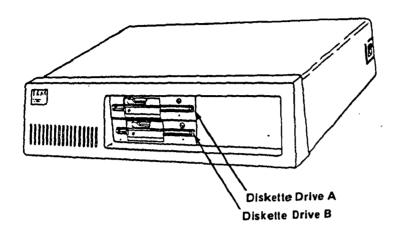




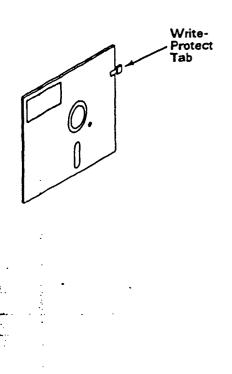
# Diskette Drives

ger.

Diskette drives are used to read data from, and record data on diskettes. Two diskette drives can be installed in your system.

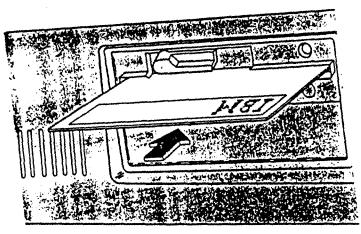


When a diskette is write protected, no information can be recorded (written) on the diskette. To make a diskette write protected, cover the notch on the side of the diskette with a write-protect tab. If you want to record (write) information on a diskette, remove the write-protect tab.



# Loading Your Diskette Drive

When you have fully inserted the diskette, it clicks into place. When the in-use light is on, indicates the system unit is using the diskette drive.



In-use Light

To remove a diskette from the diskette drive, rotate the diskette drive lever counterclockwis and pull your diskette out. Do not remove yo diskette when the in-use light is on.

ting Your System

#### 5. GENERAL PRINCIPLES

#### Definitions:

In order to clarify what follows, we will now explain some  $_{
m erms}$  that will be used later on.

#### SECTION:

As you know, the Ghana Living Standard Survey is intended to easure the living standard of non - diplomatic African households in hana.

To this end, the interviewers collect data from the households on heir housing, education, health, activites, and so on.

The questionnaire is thus broken down into several elements, each roviding data on one of the specific aspects of living standards entioned earlier.

Each of this element is called a SECTION. The Ghana Living Standards urvey questionaire has 17 sections, namely;

- 0: CONTROL DATA
- 1: HOUSEHOLD COMPOSITION
- 2: HOUSING
- 3: EDUCATION
- 4: HEALTH
- 5: ACTIVITIES
- 6: MIGRATION
- 7: RESPONDENTS IN ROUND 2
- 8: CHARACTERISTICS OF THE DWELLING
- 9: AGRO-PASTORAL ACTIVITIES
- 10: NON-AGRICULTURAL SELF-EMPLOYMENT
- 11: EXPENDITURE AND INVENTORY OF DURABLE GOODS
- 12: FOOD EXPENDITURES AND CONSUMPTION OF HOME-GROWN FOOD
- 13: FERTILITY
- 14: OTHER INCOME
- 15: CREDIT AND SAVINGS
- 16: ANTHROPOMETRICS

#### BSECTIONS:

Some sections of the questionaire are very complex. For ample, to understand the activities of a member of the household, data be obtained on:

- his main work during the last 7 days.
- his secondary work during the last 7 days.
- his main work during the last 12 months.
- his secondary work during the last 12 months.
- his job history.
- his other activities.

is order to understand the activities of a household, that same nust be obtained for each member of the household. You can see that this is complex.

Home complex sections have been divided into several parts called HOTIONS. For example, the section on household activities mentioned have was divided into six subsections (main work during the last 7 has accordary work etc.).

#### PAGES OF A SUBSECTION:

There may be so many questions in a subsection hat they do not all fit on one page.

A SUBSECTION PAGE is each page on which several questions from he subsection are printed. For example in the Ghana Living Standard prvey questionnaire, section 13 (fertility) has two subsections:

subsection A: Fertility History

Lubsection B: Birth Control. However, subsection A (fertility history) takes up two pages and subsection B only one.

#### W SPAGE:

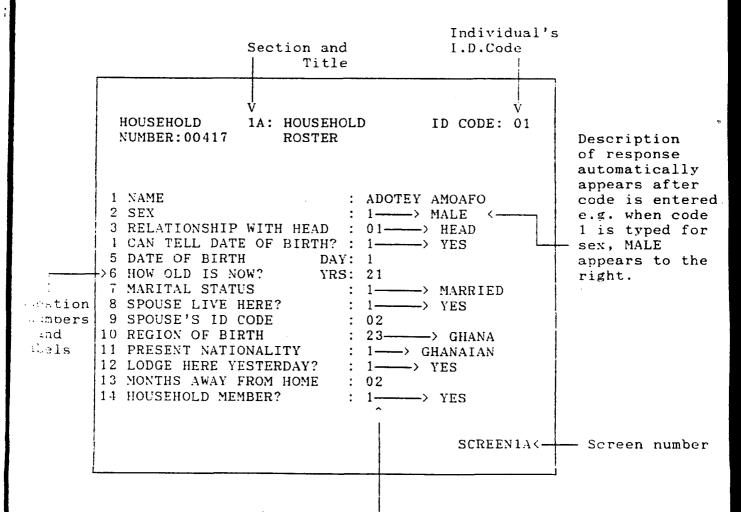
Some pages of the questionnaires are organised in such a way some of the subsections on them could actually have been asserted to other pages.

However, they were kept in their present form to facilitate the work the interviewers using the questionnaires. This is the case, for ample with page 1 of section 9, subsection D. This can be referred as a subpage.

#### -CREEN:

A screen holds all of the data for a section, subsection, page abpage, which are displayed at a given time on your moniter.

PRELIMINARY DATA ENTRY SCREENS AND RECORD LAYOUTS FOR GLSS FILE NUMBER 4 1A: HOUSEHOLD ROSTER



Precoded responses on questionnaire entered here.

#### Key to Illustration:

- 1. Section no.
- 2. Coaching item for the field
- 3. Field
- 4. Screen no. (same as for the section)

#### COACHING TERMS FOR THE FIELDS AND THE FIELDS THEMSELVES

The foregoing illustration shows what we call the coaching terms for he fields and the fields themselves.

The data are entered into the fields and the coaching terms describe secontents of the fields. The counterparts to the coaching terms in questionnaires are the questions that the interviewers have to ask.

The counterparts to the fields are the spaces where the interviewers rise in the answers given by the respondents.

As you can see, the breakdown of the questionnaire into sections, insections, pages, and subpages is very convenient for locating a given have in the questionnaire.

However, this involves many terms which can be cumbersome to use. To imply matters, we will call them all "sections", which will be followed their number. For example:

SECTION 7 designates section 7. This is a section. SECTION 1A designates section 1, subsection A. This is a

assetion.

SECTION 9B1 designates page 1 of section 9, subsection b. This page.

SECTION 9D1A designates subpage A of page 1, section 9, section D. This is a subpage.

We thus have a clear and concise means of expressing sections, sections, pages and subpages.

For the screens, we use an identical method:

Section 7 corresponds to screen 7

Section 1A corresponds to screen 1A

Section 9B1 corresponds to screen 9B1, etc.

### SPECIAL KEYS FOR DATA ENTRY

 $_{
m t}$  us now look at the function of some keys for data entry, as  $_{
m immarized}$  below.

KEY	FUNCTION
NUM LOCK	Press once to use the numeric keypad located on the right-hand side of the keyboard. Press a second time to close off that function. To use the numeric keypad once again, press a third time. When entering data, press this key once when turning the system on and do not press again.
CTRL	Can be used in two ways:  1. In combination with the "End" key to pad all fields with trailing blanks, from the point on the field where the cursor is located to the last field on the screen.  2. In combination with the "Alt" and "Del" keys, will reset the system without your having to turn the machine off and on again. This is called system reset.
ENTER HEY)	This can be used in two ways:  1. To go on to the next field when in a field other than the last one of the screen and when fewer characters than allowed by the length of the field have been entered.  2. To record all of the fields of a screen that has been completed.
	When you are at a given screen, this key is used to go back to an immediately preceding one. For example, when you are at the "data entry" screen, pressing the "Esc" key will bring you back to the General Menu, which is the immediately preceding level.

#### MITRY OF DATA INTO A FIELD

can be seen in the preceding chapter, the field is a basic space on screen that holds the data from the questionnaire.

When data are about to be entered in a field, the cursor will always the top of the field. You can then begin to enter the data.

Then you get to the end of the field, you have finished entering the for that field and the cursor automatically goes to the beginning next field.

The data entered may not take up the whole field. This occurs, sample, with the field used to enter the names of individuals.

is thirty (30) characters long, if the name "Adotey Amoafo" haracters) is entered, the whole field will not be filled.

wha case, to get to the next field press the RETURN key.

If the field is alphanumeric, the data are padded to the right with Mar blanks. This is the case of the foregoing example.

If the field is numeric, the data are justified on the right side of field and padded to the left with zeros.

#### EXTRY OF DATA INTO SCREEN

screen consists of one or more fields. Entering data into a screen erefore means putting information in all of its fields, from the first the last.

As soon as a screen is displayed, the cursor moves to the beginning the first field.

As seen earlier, for data entry you move from a field to the lowing one either at the end of a field or by pressing the "RETURN" the middle of a field.

#### MARECTION OF ERRORS

is section will show you (1) how the system indicates errors and (2) to correct them.

#### Errors within a field:

Errors within a field are indicated by the stem as data entry proceeds. The following table shows the errors you make in the fields and how the system points them out to you.

RROR	SIGNAL
Non enter alphanumeric data	A   signs will appear all along the length of the field, blinking and alternating with the low number you have just entered.
in anter an invalid code	Idem
. I enter an invalid date in the tite field	Idem
Two enter a figure that is below the lower limit of the numeric field	A "beep" sound and "x" signs appear all along the length of the field, blinking and alternating with the low number you have just entered.
enter a figure that is the upper limit of numeric field	A "beep" sound and "x" signs appear all along the length of the field, blinking and alternating with the with the high number you have just entered.

there is an error in a field, the system returns the cursor to retinning of that field after having indicated the error.

make corrections look for the data of that field in the impaire.

From are responsible for the error, re-enter the data and the life you are not responsible, i.e if you entered what is shown the substitutionaire and the system indicates an error, press the like key. On the last line of the screen the system will display the blinking messages:

If unable to correct, enter your password:"

We that point, re-enter your password. The field thus corrected to blink and the cursor will move to the following field.

If there are no such errors, proceed in the same way. It the end of the screen the system will emit a slow.

helic and plaintive tune and will post the record as shown, with bridge fields.

#### Errors within the screen

 $_{
m ou}$  will recall that when you have finished entering the data for a screen,  $_{
m he}$  system cross checks between fields.

If any inconsistencies are detected between the fields, the system ndicates them by sounding a "beep" followed by the simultaneous linking of all inconsistent fields.

The cursor moves to the beginning of the first field.

To make correction, examine the fields one by one, comparing them the data as given in the questionnaire.

If you find an error that you committed, correct it and then press

If other errors are flagged, repeat the process.

If the error is not your fault, press the "RETURN" key. On the last line the screen, the system will display the following blinking message:

"If unable to correct, enter your password:"

At that point, re-enter your password. The system will play music and post the record, with the blinking fields.

#### Posting:

As we have seen, after the data have been entered in all the lields of a screen the cursor will go to the first field of the screen. You then correct any errors in data entry.

If there are no such errors to correct, press the "RETURN" key.

System will then make the consistency checks between certain fields

be screen.

If there are any errors, the system will point them out. The section entitled "correction of errors" showed how the system indicates and how to correct them.

If there are no errors, the system will post the record. At this lit plays a lively tune and copies the data you have just enterd in fields of the screen onto the right-hand diskette, which is the action diskette.

As explained earlier, you may have to post a screen with expensioneous data. In such a case the system plays a slow and melancholic why, copies the data that you have just entered in the fields of the streen onto the production diskette, with the blinking fields.

After the record has been posted, an identical but empty screen appear and you can continue to enter the other lines of the estionaire, if any.

When no more lines of data have to be entered in the section, less the "Esc" key. You will then go to the immediately preceding the process where you can select the section you wish to enter next.

#### ! letion:

- To delete a record, move the cursor to the record in question and press the "Del" key in the control key area of the keyboard.
- When the program asks you for your password, enter your code. The program will then delete the record and show the newly amended section.
- When you have finished, press the "Esc" key.

#### OTE:

The record you wish to delete may have a higher number than the one shown on the screen. In that case, press "the arrow facing he key in the control key area of the keyboard as many times as sary until the record you are seeking appears on the screen. Then area as above. In general, by using the arrows located in the control area as indicated above, you can bring up any subsection you want. and you will see!

7. REMARKS ON THE SPECIFIC SECTION 3-. TIONS O: CONTROL DATA ver information form (section VA) SURVEY INFORMATION TTER: HOUSE HOLD - SUPERVISION OF FRIETS DATE: - (ESS (OR DESCRIPTION): JATE: INTERVIEWER: → PROPUSED DATE: IS THE HEAD OF YES ... (>SUPERVISOR) FOUND HOLLE (SSUPERVISOR) MUSLIM PROTESTANT ANTHIST/TRADITIONAL.S GE MEAD: AKAN. . GA-ADANGEE 4 HAUSA DIMES (SPECIFY) 8 LNE 3 DAGBANI S MZEMA 7 LANGUAGE ENGLISM. (END) CA-ADANGE 4 NIERA. SPECIFY). INTER- TES. 1252- brine ARAN. | LAGGRAI 5 CHER (SPECIFY). PRETER MO. 2 REINTERVIEW YES. BY SUPERVISOR? NO... 3 30 6 4 1 30 6 : - BATA ENTRY, POUND THO ---OPERATOR: REINTERVIEN YES.... TO DATA ENTRY, COUND ONE SUPERVISION OF PRINTOUTS, ROUND THO -CPERATOR: DATE: SEMERE

1.

In this section you fill in the boxes for "Data Entry/Round 1" and Data Entry/Round 2."

This is the only section where you are to fill in the boxes.

This preceding illustration shows the areas to be filled in for each round.

Obviously, for Round 1 you enter only the information given (on the questionnaire) and pad the rest of the screen with blanks. For Round 2 you make the correction for round 1, if any, and the data for Round 2.

Thus, one part has to be entered after Round 2. Do not forget to do this.

GWCGR LSU1 SE COMO MO11335 5 = 2 = 5 • -~ ᆸ ~ • Ĭ Dala entered during found 1 3140 #0# TH F I: # 5 T TEAR 1 1 S 1 A 110536 `\ -1 N 7 C 1,1 1 E B E P-! Ħ SUMMARY OF SURVEY RESULTS 310 MONTH YEAR CHECK-OP VISIT. ٠, : COMPLETE...... 118534 : K 3 M 3 I A B 3 I M I SATISFACTORY TO BE COMPLETED. 2 Data entered during Round 2 -- S U P E R Y, I S O R-ì 30111360 

This illustration shows the parts to be filled in for each found. As for DA, for Bound I you enter only the parts filled in and pad the rest of the screen with Blanks.
Here, too, do not forget the part that is filled in after Round 2.

Sections filled in and persons interviewed (section)

This is a special section which does not have a specific page in the questionnaire.

To enter the data you must scan the questionnaire by following the screen shown you:

HOUSEHO	LD: 1111 OC: SECTIONS COMPLETED / RESPONDENT	
SECTION	RESPONDENT'S WAS SECTION ID CODE INTERVIEWED? COMPLETED?	SECTION
1 A		1A
1C		1C .
9C		9C
9E		9E
9F		9F
9G		9G
9Н		9н _
11		11
11D		11D
12		12
12B		12B
14A		14A
<del></del>	<del></del>	<u> </u>

SCREEN OC

The three possible situations are illustrated below:

1.

著書はこれをするということでいる中である。大学を選択される者 ないまるしかいかいだい そうしいしない かきこうかい

SECTION 1. PART OF HOUSEHOLDER ROSTER

AVAILABLE, FIND A "PRINCIPAL RESPONDENT" TO ANSWER THE QUESTIONS IN HIS/HER PLACE. THE PERSON SELECTED MUST BE A MEMBER OF THE HOUSEHOLD WHO IS ABLE TO GIVE INFORMATION ON THE OTHER HOUSEHOLD MEMBERS.

STAPHEN LEWER		
ESPONDENT:	ID CODE:	

		FOR EACH	CHILD LISTE	0 IN 90ES	CHILD LISTED IM QUESTION Z, ASK QUESTIONS 4-13.	OVEST 10N	5 4-13.					
{	_	-	2	•	_			0.	11	12	13	
that are their names? [5] ALL THE CHILDREN UNDER 30 YEARS OF AGE WHO DO NOT		Sex? How old	Joes the	5007 THE FATHER'S TO CODE.	COPY THE Boss the COPY THE RANGE TO CODE. Solher of 10	COPY THE MOTHER'S	COPY THE MASS TO THE TO	Is [MAME] ing school	13 . [MARE] Mhat is the highest 119 school grade coppleted by 108 school [MARE]	in make region or consists does	live is 12 h	
LIVE IN THIS MÔUSEHOLD.			this househol		live in this household?				MONE P1 P2 F3 P4 P5 P5	ATEN ACCION	The state of the s	325
COMPLETE THE LIST BEFORE SOING TO 4-13.			rfs1		165.1		1681	rES1	S1 52 53 54 55 A1 A2 P51 P52 P53	4.0	\$1.00 \$1.00	
		· · · · · · · · · · · · · · · · · · ·	(1).2 (1).2		2.(61)		(511)	402	R (Roranc)	E 25.0	Carlo Coan	
				·						E 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	a de la constante de la consta	
	<del></del>			•	•					1060 8047128 F8SO 14		
	- <del>!</del>	TEARS.		egg.	:	CODE	÷			SPECT THE STATE OF THE SPECT THE SPE	:	:
											1 S E C 1 1 0 M 2	,
10 H 9. A G R	A 6 R 0 - P A S T 0 R A L	TORAL	ACTIVITIES	1168		•						

SUPERVISOR

SUPERVISOR

MESPONDENT:

INTERVIEWER

INTERVIEWED

INTERVIEWE

INTERVIEWED

INTERVIEWED

INTERVIEWED

INTERVIEWED

INTERVIE

SECTION 7: RESPONDENTS IN ROANS 2:

This section has a label on the second page.

ID CODE:	
WIRE:	

19. TO CHOOSE A WOMAN AT BANDON TO ANSHER A QUESTION ON FERTILITY IN THE SECOND BOUND OF THE SUPPET.

FAB THE FIRST LINE OF THE STICKER BELOW UNTIL TOU COME TO THE ID CAN MOUSE HOUSE THE THE MOUSEHOUS MAD ARE IS ON OLDER IN THE MOUSEHOUS BESSIER, CROSS OUT EACH REJECTED ID CODE ON THE SICORE. I HERE IS NO YALLS IN CODE, IN THE FIRST LINE, GO TO THE SECOND. MACHINE

CI ICES

Write the mass and id code of the soman selected

10 CGVE:	
9£:	
٠	
2	
NAME:	

You must enter the figure in the box (in the middle of the page). You must also enter the identification code in the box at bottom of the second page.

SECTIONS 98, 9E, 9G, 9I, 9K, 108, 10C, 11A, 118, 12A, 128, and 14A

These sections have precoded fields.

SECTION 12. FOOD EXPENSES AND HOME PRODUCTION

PART A. FOOD EXPENSES

		IF THE ANSWER TO	1 IS YES, ASX 2-6.					
During the past 12 months, a members of your household be of the following foods for e consumption?.	ught an,	of your household bought any Since ay last visit?	I How much have they spent since my visit?	during which sonths in the last 12 mos (since) did the seabers of your pousehold buy: RRITE MUMBER OF HOMINS CILED	During these enths, how often did they usually buy [		How much did they usually spand each time?	
PUT A CROSS IN THE APPROPRIA DOX FOR ALL FOODS BEFORE 60: 10 2-6.	NE LED	NO2 (34)	ANOUNT	MUNBER OF MONTHS	TIMES	TIME	AMOUNT	
Rice? .	YES-1	741						
!	e-ko	Sighendafaiveb. i-	Managaran da	PARTY SERVICE CO.	:0557¥	er eres	, h 154; \$1 ; \$100; \$1 ?	
Maize (cob, grain, dough or flour)?	YES-D							
	(-h):	A. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	<b>元的言語和《中於時</b> 科	and the second	13433	şîli		
Millel, quinea corn.or sorghum (grain or flour)?	YES-1	1)						
Auga (Aratu ot itool).	t-x3	303	a companyan	rangement at	12 /12 ( J Z	福 主意	Jan gray of the control	
Bread or wheat flourt	YES-1							
	€-kû	Assessment of the	र्म कटर १४८८ र स्थान <del>।</del>	egripe santifitari d	pì	2,568,913	end the second of	
Ram cassava?	YES-1		<del></del>		<del>-</del>	<del></del>		
	6-NO ·	32 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	terraring dispensive to	titte i ment in the second	ES 25 5. 8	Q5, 122		

On each line, the interviewer will put a cross ("x") in either the "yes" or no box.

If there is an "x" in the "yes" box you must enter the line, even if nothing is filled in. You enter only the preprinted code and fill the rest of the field in with blacks.

For example, suppose in the above illustration the "yes" box is checked for the second line, but the line is not filled in. You enter the code 302 and fill the other fields in with blanks before posting the record.

If there is an "x" in the "no" box and the line is filled in, you enter it anyway and inform your supervisor of this abnormal situation.

If there is an "x" in the "no" box and the line is not filled in, you obviously do not enter anything.

教育の主義では最後の日本の大学を言いていては、大学のことをおは、またのはないないできました。

#### 8. INTER-RECORD CHECKS BETWEEN SECTIONS

The consistency controls between sections are run by the system after all the sections for a household have been entered.

These controls ensure that the data are consistent.

START-UP.

To start the consistency controls between sections, you must:

- 1. Ready the printer, i.e., turn it on if it is off and position the paper properly.
- 2. Return to the data entry menu and select: inter-records checks.

The system then begins checking. The operation can take a long time, but this is normal.

You can follow the progress of the checks because the number of the section being checked is always displayed on the screen.

10 REGINA DZODZO	09 DELA AYI	OB AQUAA FRIMPS.	07 ERIC NERQUAYE	06 ALBERT QUANSAH	05 DAVID QUARSHE	04 AMFONG ASSENSOH	03 CHRIS OKINE	02 MAGGIE SALLAH	(01 SAMUEL AMOAFO	ID CODE	CLUSTER 046/ HOUSEHOLD 17 1A:
	12	- 10	- 12	- 計	-	-		+		2 SEX	
2 04 2	03	2	2 04		05	೦ೣ	ವಿ	2	101	3 RELATIONSHIP WITH	ноизеного
121	F		2	ᆔ	N	12	耳	2	Ξ	4 CAN TELL DATE OF	381
	03	10101		当			12		Ō	S DATE OF BIRTH	HOI
	10			10 20			07		Q Q	нтн	ם
	50	60		20			40		0.1	YERR	RO
100	037	60 027	025	067	060	035	12 07 40 047	060	10 03 10 078	6 HOW OLD IS NOW?	ROSTER
										нтн	
					N	6 2	W		1	2 MARITAL STATUS	
<u> </u>	2		- 1	্ ।	- =	[7]	Ŋ	1	1 0	2 SPOUSE LIVES HERE 9 SPOUSE'S ID CODE	
- 106	06	- 02	09 02	- 02	10 02	80	02	01 05	02/06	10 RECION OF BIRTH	
	- 1	-  -			- <del>[4]</del>	4	-	-		11 PRESENT WATIONALI	
N	12	<u> 12</u>	N			ы			<u> </u>	12 LODGE HERE VESTER	
	04	11		_	. Ц	의	02	2	) -	13 HONTHS RURY FROM	
<u> </u>		<u></u>	_ <u>_</u>	<u> </u>	_ <u>-</u>			<u>-</u>		14 HOUSENOLD HEMBER?	

CLUSTER 046 HOUSEHOLD 17: --- CHECKS FOR THE FAMILY ROSTER

THE SPOUSE OF SAMUEL AMOAFO (£ 1), MAGGIE SALLAH (£ 2) IS OF THE SAME SEX THE SPOUSE OF MAGGIE SALLAH (£ 2), SAMUEL AMOAFO (£ 1) IS OF THE SAME SEX THE SPOUSE OF DAVID DUARSHE (£ 5), REGINA DZODZO (£ 10) IS NOT MARRIED TO HIN/HER THE SPOUSE OF ERIC NERQUAYE (£ 7), DELA AYI (£ 9) IS OF THE SAME SEX SECTION 7 IS MISSING

END OF CHECKS FOR THE FAMILY COLLE

ç

As seen earlier, after the inter-record checks are run you will have a three part printout.

1. The first part is entitled "List of all sections entered". In this part of the printout you will have all data entered for a household, section by section.

The fields circled in dark ink on the printout are those which were blinking on the time of data entry.

2. The second part is entitled "Number of Records Entered by Section"

	}
CLUSTER:046 HOUSEHOLD:17 NUMBER OF LINES ENTE	ERED FOR THE SECTION
SECTION NUMBER	OF LINES
1A: HOUSEHOLD ROASTER  1B: INFORMATION ON PARENTS  1C: CHILDREN RESIDING ELSEWHERE  2A: HOUSING  2B: HOUSING EXPENSES  3A1: EDUCATION  3A2: EDUCATION  1: HEALTH  5A: TIME USE AND JOB SEARCH  5B1: MAIN JOB DURING THE PAST 7 DAYS  5B2: MAIN JOB DURING THE PAST 7 DAYS  5B3: MAIN JOB DURING THE PAST 7 DAYS  5B4: MAIN JOB DURING THE PAST 7 DAYS  5C1: SECONDARY JOB DURING THE PAST 7 DAYS  5C2: SECONDARY JOB DURING THE PAST 7 DAYS  5C1: MAIN JOB DURING THE PAST 7 DAYS  5C2: SECONDARY JOB DURING THE PAST 7 DAYS  5C3: MAIN JOB DURING THE PAST 12 MONTHS  5C4: MAIN JOB DURING THE PAST 12 MONTHS  5C5: MAIN JOB DURING THE PAST 12 MONTHS  5C6: MAIN JOB DURING THE PAST 12 MONTHS  5C6: MAIN JOB DURING THE PAST 12 MONTHS  5C6: MAIN JOB DURING THE PAST 12 MONTHS  5C7: ENPLOMENT HISTORY	8 8 5 1 1 1 6 0 8 5 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

This part of the printout shows all the sections of the questionnaire.

Next to each section is marked the number of data entered for the excition and possibly the message " --- errors detected" to indicate that one or more errors were found in that section.

3. The last part is entitled "consistency checks".

CLUSTER 046 HOUSEHOLD 17 -- CONSISTENCY CHECKS FOR THE HOUSEHOLD ROSTER NO ERRORS DETECTED

END OF CONSISTENCY CHECKS FOR THE HOUSEHOLD COMPOSITON RECORD

CLUSTER 046 HOUSEHOLD 17 -- CONSISTENCY CHECKS BETWEEN INDIVIDUAL SECTIONS

NO ERRORS DETECTED FOR MEMBERS OF HOUSEHOLD 04617

END OF CONSISTENCY CHECKS BETWEEN INDIVIDUAL SECTIONS

This part of the printout clearly shows the inconsistencies detected by this system when checking the household roster. It aslo shows the inconsistencies detected by comparing all

sections associated with a given individual.

## POSSIBLE SOLUTIONS FOR COMMON PROBLEMS

Below is a list of common problems that may arise during data entry and possible solutions.

POSSIBLE SOLUTIONS

During data entry you see the cursor but no key is displayed then you press down.

iou activate the main unit and

fou run "consistency tests" and ou see the message "time out..." and then the system returns to the General Menu.

The printer beeps repeatedly.

iou turn on the main unit, the lisk whirs continously, but the ursor does not appear.

he monitor displays the message Device fault at.... and the ystem returns to the General enu.

the current is cut off while ou are working.

are posting a record and e message "disk full....." flashes, after which the system returns to the General

Turn off the main unit for about a minute and then restart.

Put the system disk into the top (A) You activate the main unit and Put the system disk into the top give the message "Non-system disk" disk drive and press the "R" key

> If the the printer is not turned off, press firmly on the two ends of the cable connecting the printer to the unit and begin the consistency tests again.

Adjust the paper feed of the printer printer because the paper is either used up or crumpled.

Turn off the main unit and the printer, if on, for about a minute. Next, turn on the main unit first and then the printer.

Make sure that the printer is on and that the right diskette drive contains a diskette. If not, turn the printer on and/or insert a diskette in the right drive and begin what you were doing again.

Turn the switches on the voltage regulator, main unit and printer to the "off" position. When the current returns, begin what you were doing again.

See "what to do when the diskette is full".

During data entry, the message "disk full..." may be superimposed on the data you have entered and quickly disappear, leaving the General Menu on the moniter.

This occurs because the production diskette is full and cannot accept any more data.

You must enter the rest of the questionnaire on another diskette.

Example: Suppose that when posting a record from section 9k for household 40 in cluster 001 ("Nima Market"), the production diskette is full.

To continue data entry, first take out full diskette:

1. Format a new diskette. The label for the new diskette will be as follows:

Week 16/2/85 and 2/3/85

Cluster 11 Accra-Tema Urban

Round 1 20/2/87

Round 2 5/3/87

Diskette 1, Production Continued

Household; 33

2. After formating the new diskette, leave it in the down drive (B), key in and enter the following command:

Household No.

mai :00110

leave blank here

3. Nort, take the system diskette out of the top disk drive and replace it with the full production diskette, then key in and enter the followings command:

copy 00110 5:00140

loave blank here

the monitor will display in turn the number of the sections you have abready intered. This operation takes a long time.

4. key in and enter the following command:

erase 00110

----- leave a blank here

The system will display the message "Are you sure (Y/N)?" You key in and outer "y."

5. Lastly, key in and enter the following command:

rd 00140