Methodology

Household Income, Expenditure and Consumption Survey (HIECS)

Egypt

2010/2011

SECTION 1
General Introduction

In response of the considerations of credibility and transparency of official statistics, It is deemed important for users of statistics to get acquainted with the different methodologies and standards applied for the production of such statistics. In this context, the methodology of implementing the 2010/2011 Income, Expenditure and Consumption Survey and adopted concepts and definitions are presented in this volume, which consists of the following sections:

- First: General introduction
- Second: Sample design and selection
- Third: Survey tools and instruments
- Fourth: Definitions and concepts
- Fifth: Implementation stages

First: Historical Review

1- The first survey of income and expenditure, planned to be pilot, was undertaken in 1955. It was planned and carried out by the Committee of Statistic in three villages of Giza governorate on a sample of 750 households where the total sampling frame in this area was 4000 households.

2- In 1958/59, the first national survey was conducted in all governorates of Egypt on a sample of 6376 households distributed between urban and rural areas with a percentage of 51.5% and 48.5% respectively. All sample households were observed for the entire survey period (12 month).

3- In 1964/65, the second survey was conducted on a sample of 13818 households allocated between urban and rural areas such as 67.6% for urban and 32.4%for rural households. With the aim of reducing the burden on surveyed households, the whole sample was divided into four sub-samples where households of each sub-sample were observed for only three consecutive months.

4- In 1974/75, the third survey was carried out on a sample of 11995 households allocated between urban and rural areas in a similar way as the second survey. Like the second survey, households were observed only for three successive months.

5- In 1981/82, the fourth survey was conducted on a sample of 17000 households distributed equally between urban and rural areas. A new observation methodology, combing fixed and changeable observation of surveyed households, has been applied. A sub- sample of 1000 households were observed all over the survey period (12 months) while the remaining 16000 households were observed on a changeable basis.

6- In 1990/91, the name of household budgetary survey changed to income, expenditure and consumption survey. Under the new name, the fifth survey was conducted on a sample of 15000 households distributed between urban and rural areas with the percentage of 60% for urban and 40% for rural. The entire sample was divided into 12 sub-samples, each were observed for only one month.

7- In 1995/96, the sixth survey was conducted on a sample of 15090 households allocated between urban and rural areas such as 45.1% in urban and 54.9% in rural. The same observation scheme of the previous survey was applied, i.e., households were observed for one month only.

8- In 1999/2000, the seventh survey was conducted on a sample of 48000 households (4000 household monthly) distributed between urban and rural areas with the percentage of 60% for urban and 40% for rural.(households were observed for one month only).

9- In 2004/2005, the eighth survey was conducted on a sample of 48000 households (4000 households monthly) distributed in urban and rural areas with the percentage of 46.4% for urban and 53.6% rural (households were observed for one month only).

10- In 2008/2009 the ninth in the series was conducted on a sample of 48658 households (2000 households every 15 days) distributed between urban and rural areas with the percentage of 47.2% for urban and 52.8% rural.(households were observed every 15 days).

11- The current survey is the tenth survey that was carried out in 2010/2011 on a sample of 26.5 thousand households, out of which 16.5 thousands were new households and 10 thousands were panel households. 1100 household were collected every 15 days distributed between urban and rural areas with the percentage of 47.1% for urban and 52.9% rural (surveyed households were changed every 15 days).

The Survey Main Objectives are:

1- To identify expenditure levels and patterns of population as well as socio- economic and demographic differentials.

2- To measure average household and per-capita expenditure for various expenditure items along with socio-economic correlates.

3- To Measure the change in living standards and expenditure patterns and behavior for the individuals and households in the panel sample, previously surveyed in 2008/2009, for the first time during 12 months representing the survey period.

4- To define percentage distribution of expenditure for various items used in compiling consumer price indices which is considered important indicator for measuring inflation.

5- To estimate the quantities, values of commodities and services consumed by households during the survey period to determine the levels of consumption and estimate the current demand which is important to predict future demands.

6- To define average household and per-capita income from different sources.

7- To provide data necessary to measure standard of living for households and individuals. Poverty analysis and setting up a basis for social welfare assistance are highly dependent on the results of this survey.

8- To provide essential data to measure elasticity which reflects the percentage change in expenditure for various commodity and service groups against the percentage change in total expenditure for the purpose of predicting the levels of expenditure and consumption for different commodity and service items in urban and rural areas.

9- To provide data essential for comparing change in expenditure against change in income to measure income elasticity of expenditure.

10- To study the relationships between demographic, geographical, housing characteristics of households and their income.

11- To provide data necessary for national accounts especially in compiling inputs and outputs tables.

12- To identify consumers behavior changes among socio-economic groups in urban and rural areas.

13- To identify per capita food consumption and its main components of calories, proteins and fats according to its nutrition components and the levels of expenditure in both urban and rural areas.

14- To identify the value of expenditure for food according to its sources, either from household production or not, in addition to household expenditure for non-food commodities and services.

15- To identify distribution of households according to the possession of some appliances and equipments such as (cars, satellites, mobiles ,…etc) in urban and rural areas that enables measuring household wealth index.

16- To identify the percentage distribution of income earners according to some background variables such as housing conditions, size of household and characteristics of head of household.

Third: Peculiarities of the present Survey

1- The total sample of the current survey (26.5 thousand households) is divided into two sections:

   a- A new sample of 16.5 thousand households. This sample was used to study the geographic differences between urban governorates, urban and rural areas, and frontier governorates as well as other discrepancies related to households characteristics and household size, head of the household's education status, ……. etc.

   b- A panel sample with 2008/2009 survey data of around 10 thousand households was selected to accurately study the changes that may have occurred in the households' living standards over the period between the two surveys and over time in the future since CAPMAS will continue to collect panel data for HIECS in the coming years.

2- Reduce the number of enumeration area segments from 2526 in the previous survey to 1000 segments for the new sample, with decreasing the number of households selected from each segment to be (16/18) households instead of (19/20) in the previous survey.

3- Adding some additional questions that showed to be important based on previous surveys results such as:

   a- Collect the expenditure data on education and health on the person level and not on the household level to enable assessing the real level of average expenditure on those services based on the number of beneficiaries.

   b- The extent of health services provided to monitor the level of services available in the Egyptian society.

   c- Smoking patterns and behaviors (tobacco types- consumption level- quantities purchased and their values).

d- Counting the number of household members younger than 18 years of age registered in ration cards.

e- Add more details to social security pensions data (for adults, children, scholarships, families of civilian martyrs due to military actions) to match new systems of social security.

f- Duration of usage and current value of durable goods aiming at estimating the service cost of personal consumption, as in the case of imputed rents.

4- Increasing quality control procedures especially for fieldwork to ensure data accuracy and avoid any errors in suitable time, as well as taking all the necessary measures to guarantee that mistakes are not repeated, with the application of the principle of reward and punishment.

Fourth: Survey Implementation

The Preparation stage for the survey has started in January 2010; the coordination among all stages of survey implementation has been taken into consideration. The activities of office editing, coding, data processing and validation were held at the same time with data collection. Completed questionnaire from all governorates have been submitted to the research division in CAPMAS every two weeks starting the sixth day after the ending of the two weeks during which data is collected. This was followed by the revision and coding phase in parallel with the data entry of those questionnaires, then starts the validation process to evaluate the accuracy and consistency of collected data.

Preliminary tabulations have been generated quarterly for the purpose of checking survey results which have been contrasted with the corresponding results of the previous survey.

Results are published bilingually (Arabic and English) in six volumes as follows:

1- Survey methodology.

2- Characteristics of households, individuals and housing conditions.

3- Patterns of household expenditure according to socio-economic characteristics of households.

4- Average household expenditure according to socio economic characteristics of households.

5- Average household income and percentage distribution of income according to household social and economic characteristics.

6- Changes in living standards indicators between 2008/2009 and 2010/2011 surveys.

SECTION 2

Sample Design and Selection

The sample of HIECS, 2010-2011 is a self-weighted two-stage stratified cluster sample, of around 26500 households. The main elements of the sampling design are described in the following.

1- Sample Size

It has been deemed important to collect a smaller sample size (around 26.5 thousand households) compared to previous rounds due to the convergence in the time period over which the survey is conducted to be every two years instead of five years because of its importance. The sample has been proportionally distributed on the governorate level between urban and rural areas, in order to make the sample representative even for small governorates.

Thus, a sample of about 26500 households has been considered, and was distributed between urban and rural with the percentages of 47.1 % and 52.9, respectively.

This sample is divided into two parts:

    a- A new sample of 16.5 thousand households selected from main enumeration areas.

    b- A panel sample with 2008/2009 survey data of around 10 thousand households.

2- Cluster size

The cluster size in the previous survey has been decreased compared to older surveys since large cluster sizes previously used were found to be too large to yield accepted design effect estimates (DEFT).

As a result, it has been decided to use a cluster size of only 16 households (that was increased to 18 households in urban governorates and Giza, in addition to urban areas in Helwan and 6th of October, to account for anticipated non-response in those governorates: in view of past experience indicating that non-response may almost be nil in rural governorates).

While the cluster size for the panel sample was 4 households.

3- Core Sample

The core sample is the master sample of any household sample required to be pulled for the purpose of studying the properties of individuals and families. It is a large sample and distributed on urban and rural areas of all governorates. It is a representative sample for the individual characteristics of the Egyptian society.

This sample was implemented in January 2010 and its size reached more than 1 million household (1004800 household) selected from 5024 enumeration areas distributed on all governorates (urban/rural) proportionally with the sample size (the enumeration area size is around 200 households).

The core sample is the sampling frame from which the samples for the surveys conducted by CAPMAS are pulled, such as the Labor Force Surveys, Income, Expenditure And Consumption Survey, Household Urban Migration Survey, ...etc, in addition to other samples that may be required for outsources.

New Households Sample

1000 sample areas were selected across all governorates (urban/rural) using a proportional technique with the sample size. The number required for each governorate (urban/rural) was selected from the enumeration areas of the core sample using a systematic sampling technique.

4- Sampling stages

A-First stage sample

(1) Primary Sampling Unit:

The 2006 Population Census provided, in a very convenient way, adequate census data at the level of the Enumeration Area (EAs). The electronic list of EA's represented the frame of the first stage sample; the corresponding number of census households is taken as a measure of size. The size of an EA is about 200 household on average, yet some variability in EA's sizes must be expected. The size of first stage national sample was initially estimated as of 5024 EA's.

(2) Sample Allocation among Governorates:

The primary stratifying variable is the governorate of residence, which in turn is divided into urban and rural sub-strata, whenever applicable. The first stage sample was initially allocated proportionally among governorates and between the urban and rural parts of each. Therefore the sample is self-weighted at the national level, as shown in Table 1.

Table (1): Allocation of Core Sample over Governorates (urban/rural)

Governorate	Urban	Rural	Total
Cairo	516		516
Alexandria	310		310
Port-said	50		50
Suez	50		50
Helwan	87	32	119
6th of October	53	126	179
Damietta	32	50	82
Dakahlia	104	262	366
Sharkia	87	278	365
Kalyoubia	138	164	302
Kafr-E1-Sheikh	43	135	178
Gharbia	91	197	288
Menoufia	47	175	222
Behera	64	252	316
Ismailia	31	35	66
Giza	232		232
Beni-Suef	36	107	143
Fayoum	39	123	162
Menia	53	210	263
Asyout	58	153	211
Souhag	51	186	237
Qena	41	142	183
Aswan	33	45	78
Luxur city	14	15	29
Red Sea	17	1	18
El-Wadi El-Gidid	6	7	13
Matrouh	13	5	18
North Sinai	13	8	21
South Sinai	4	3	7
Total	2313	2711	5024

(3) <u>First Stage Sample frame:</u>

The census lists of EA's for each substratum coupled with the corresponding number of census households constitute the frame of the first stage sample. The identification information appears on the EA's list includes District code, Shiakha/Village code, Census Supervisor number, and Enumerator number. Census Supervisor number is unique at the level of (Shiakha/Village), while the enumerator number is unique within the enumeration assignment of the census supervisor.

On investigating the list of EA's with regard to the number of households associated with each EA, it has been found that a few number of EA's are substantially below the average of 200 households. The reason for that is the work assignment of some enumerators included institutional households which have been screened out: only private households are included. As a result, a decision was made to adjoin any EA with less than 100 households to an adjacent one. Thus, in those exceptional cases the Primary Sampling Units (PSU) consists of two EA's.

Prior to the selection of the first stage sample, the frame was arranged in such a way so as to provide implicit stratification with regard to the geographic location. The urban frame of each governorate was ordered in a serpentine fashion according to the geographic location of kism/ district capitals. The same sort of ordering was made on the rural frame, but according to the district location. The systematic selection of EA 's sample from such a sorted frame will ensure a balanced spread of the sample over the area of respective governorates.

When the preparation of the sampling frame was achieved as described above, the primary sampling units were pulled using a Probability Proportional to Size (PPS) technique, with the number of census households taken as a Measure of Size (MOS).

B- Second Stage Sample:

In this stage, 1000 EAs were selected for the sample of new households on the governorates level (urban/rural) using a Probability Proportional to Size (PPS) technique, and the number of EAs per governorate (urban/rural) was pulled using a systematic random sampling technique from the sample frame of the core sample consisting of 5024 EAs. Table (20 indicates the allocation of the new sample EAs by governorates (urban/rural).

Table (2): Allocation of the New Sample EAs by Governorates (urban/rural)

Governorate	Urban	Rural	Total
Cairo	104	0	104
Alexandria	62	0	62
Port-said	8	0	8
Suez	7	0	7
Helwan	17	6	23
6th of October	11	25	36
Damietta	6	10	16
Dakahlia	21	52	73
Sharkia	17	55	72
Kalyoubia	28	33	61
Kafr-E1-Sheikh	9	27	36
Gharbia	18	39	57
Menoufia	9	35	44
Behera	13	50	63
Ismailia	6	7	13
Giza	47	0	47
Beni-Suef	7	21	28
Fayoum	8	25	33
Menia	11	42	53
Asyout	12	31	43
Souhag	10	37	47
Qena	8	28	36
Aswan	7	9	16
Luxur city	3	3	6
Red Sea	3	0	3
El-Wadi El-Gidid	1	1	2
Matrouh	3	1	4
North Sinai	3	2	5
South Sinai	1	1	2
Total	460	540	1000

C- Third Stage Sample:

This is the final stage sample, in which a sample of 16 or 18 households is to be drawn from each EA selected in the second stage sample.

Normally, a data checking and recording process is conducted through a quick count for the selected areas in the core sample before the final selection is performed.

5- Sample Allocation:

The survey period of the 2010-2011 HIECS extends over a 12 months period, starting from July 2010 and ending in June 2011. Households were observed for two continuous weeks only, this is to collect information on food expenditure. The collection period was shortened to lighten the burden on the surveyed households and encourage them for more cooperation.

Conventionally, the entire survey period is divided into four exclusive quarters, the first quarter includes the first three months (July, August, and September); the second quarter consists of the following three months, and so on till the fourth quarter. The rationale behind this division scheme is to extract preliminary results on each quarter independently, for the purpose of either assessing the quality of survey results, especially in its early stages of implementation, or to conduct meaningful comparative analysis with the similar quarter of previous HIECS rounds once the preliminary results were judged to be acceptable.

In response to the requirements mentioned above, the entire sample is to be divided among the four quarters. A decision was made to cover the whole first stage sample (1000 EAs) in all the survey quarters, but with a sample of 4 or 5 households to be observed from each EA in each quarter.

In order to accomplish an appropriate allocation scheme of the sample over the entire survey period, the first stage sample was randomly divided into six equal (or approximately equal) sub-samples; each of these sub-samples was assigned to a certain 2-week survey period. The first sub-sample had been observed in the first two weeks of July; the second sub-sample in the second two week of July; the third sub- sample in the first 2 weeks of August; and so on till the sixth sub-sample which is to observed in the last two weeks of September. Considerations are also made such that the EA's which are to be observed in the first two weeks of any month in the first quarter are to be observed in the second two weeks of the corresponding month in the second quarter, and conversely for EA's observed in the second 2 week of any month in the first quarter. Evidently, the sample allocation over the six 2-week periods of the first and second quarters will be repeated in the third and fourth quarters respectively. As a result of this allocation scheme, each sample EA will be observed two times in the first 2 weeks and two times

in the second 2 weeks of the corresponding months.

As mentioned before, only 4 or 5 households are to be observed from each EA in each of the survey quarters. The list of the whole cluster of 16 or 18 households was divided, into a sub-sample of 5 or 4 households, each of which will be observed in the successive survey quarters. Table (3) displays the allocation of the new sample EAs by governorates (urban/rural) over the six 2 week periods of survey, and Table (4) displays designed and surveyed sample and response rate according to governorates.

Table (3): Allocation of the New Sample EAs over the six 2 week periods by Governorates (urban/rural)

Governorate	Urban/ Rural	1st period	2nd period	3rd period	4th period	5th period	6th period	Total
Cairo	U	18	17	18	17	17	17	104
	R	0	0	0	0	0	0	0
	T	18	17	18	17	17	17	104
Alexandria	U	10	11	10	10	10	11	62
	R	0	0	0	0	0	0	0
	T	10	11	10	10	10	11	62
Port-said	U	1	1	1	2	1	2	8
	R	0	0	0	0	0	0	0
	T	1	1	1	2	1	2	8
Suez	U	2	1	0	2	1	1	7
	R	0	0	0	0	0	0	0
	T	2	1	0	2	1	1	7
Helwan	U	3	2	3	3	3	3	17
	R	0	2	1	1	1	1	6
	T	3	4	4	4	4	4	23
6th of October	U	2	1	2	2	2	2	11
	R	5	5	4	4	3	4	25
	T	7	6	6	6	5	6	36
Damietta	U	1	1	1	1	1	1	6
	R	1	2	3	1	1	2	10
	T	2	3	4	2	2	3	16
Dakahlia	U	4	3	3	4	4	3	21
	R	9	8	8	9	8	10	52
	T	13	11	11	13	12	13	73
Sharkia	U	3	2	3	3	3	3	17
	R	9	11	8	9	9	9	55
	T	12	13	11	12	12	12	72
Kalyoubia	U	5	4	5	5	4	5	28
	R	5	6	5	6	6	5	33
	T	10	10	10	11	10	10	61
Kafr ElSheikh	U	2	1	1	2	1	2	9
	R	4	5	4	5	4	5	27
	T	6	6	5	7	5	7	36
Gharbia	U	3	3	3	3	4	2	18
	R	7	6	6	7	6	7	39
	T	10	9	9	10	10	9	57

Cont. table(3): Allocation of the New Sample EAs over the six 2 week periods by Governorates (urban/rural)

Governorate.	Urban/ Rural	1st period	2nd period	3rd period	4th period	5th period	6th period	Total
Menoufia	U	2	1	1	2	2	1	9
	R	4	7	6	6	8	4	35
	T	6	8	7	8	10	5	44
Behera	U	2	2	2	3	2	2	13
	R	9	8	8	8	9	8	50
	T	11	10	10	11	11	10	63
Ismailia	U	1	1	1	1	1	1	6
	R	1	1	2	0	1	2	7
	T	2	2	3	1	2	3	13
Giza	U	9	8	7	8	7	8	47
	R	0	0	0	0	0	0	0
	T	9	8	7	8	7	8	47
Beni-Suef	U	1	1	2	1	1	1	7
	R	3	4	4	3	4	3	21
	T	4	5	6	4	5	4	28
Fayoum	U	1	2	1	1	1	2	8
	R	4	4	4	5	5	3	25
	T	5	6	5	6	6	5	33
Menia	U	2	1	2	2	2	2	11
	R	7	7	8	6	7	7	42
	T	9	8	10	8	9	9	53
Asyout	U	2	2	2	2	2	2	12
	R	5	5	6	4	5	6	31
	T	7	7	8	6	7	8	43
Suhag	U	2	1	2	1	2	2	10
	R	7	7	6	6	5	6	37
	T	9	8	8	7	7	8	47
Qena	U	1	2	1	1	2	1	8
	R	4	4	6	5	5	4	28
	T	5	6	7	6	7	5	36
Aswan	U	1	2	1	1	1	1	7
	R	2	1	2	1	2	1	9
	T	3	3	3	2	3	2	16
Luxury city	U	1	0	0	1	1	0	3
	R	0	1	0	1	0	1	3
	T	1	1	0	2	1	1	6
Red Sea	U	0	1	1	0	1	0	3
	R	0	0	0	0	0	0	0
	T	0	1	1	0	1	0	3
El-Wadi El-Gidid	U	0	0	0	1	0	0	1
	R	0	0	0	0	0	1	1
	T	0	0	0	1	0	1	2
Matrouh	U	1	1	0	0	0	1	3
	R	0	0	1	0	0	0	1
	T	1	1	1	0	0	1	4

Cont. table(3): Allocation of the New Sample EAs over the six 2 week periods by Governorates (urban/rural)

Governorate.	Urban/ Rural	1st period	2nd period	3rd period	4th period	5th period	6th period	Total
North Sinai	U	0	1	1	0	1	0	3
	R	0	0	0	1	0	1	2
	T	0	1	1	1	1	1	5
South Sinai	U	0	1	0	0	0	0	1
	R	0	0	0	0	0	1	1
	T	0	1	0	0	0	1	2
Total	U	80	74	74	79	77	76	460
	R	86	94	92	88	89	91	540
	T	166	168	166	167	166	167	1000

Table (4) Designed and surveyed Sample and Response Rate According to Governorate

Governorate.	Designed Sample			Surveyed Sample			Response rate%		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Cairo	1872	0	1872	1643	0	1643	87.8	0.0	87.8
Alexandria	1116	0	1116	1037	0	1037	92.9	0.0	92.9
Port-said	144	0	144	138	0	138	95.8	0.0	95.8
Suez	126	0	126	120	0	120	95.2	0.0	95.2
Helwan	306	96	402	258	92	350	84.3	95.8	87.1
6th of October	198	400	598	165	380	545	83.3	95.0	91.1
Damietta	96	160	256	92	152	244	95.8	95.0	95.3
Dakahlia	336	832	1168	317	806	1123	94.3	96.9	96.1
sharkia	272	880	1152	255	837	1092	93.8	95.1	94.8
kalyoubia	448	528	976	422	503	925	94.2	95.3	94.8
Kafr-E1-Sheikh	144	432	576	136	412	548	94.4	95.4	95.1
Gharbia	288	624	912	273	600	873	94.8	96.2	95.7
Menoufia	144	560	704	139	532	671	96.5	95.0	95.3
Behera	208	800	1008	200	763	963	96.2	95.4	95.5
Ismailia	96	112	208	90	108	198	93.8	96.4	95.2
Giza	846	0	846	730	0	730	86.3	0.0	86.3
Beni-Suef	112	336	448	104	320	424	92.9	95.2	94.6
Fayoum	128	400	528	119	384	503	93.0	96.0	95.3
Menia	176	672	848	168	644	812	95.5	95.8	95.8
Asyout	192	496	688	183	475	658	95.3	95.8	95.6
Suhag	160	592	752	156	568	724	97.5	95.9	96.3
Qena	128	448	576	120	426	546	93.8	95.1	94.8
Aswan	112	144	256	108	135	243	96.4	93.8	94.9
Luxury city	48	48	96	47	48	95	97.9	100.0	99.0
Red Sea	48	0	48	35	0	35	72.9	0.0	72.9
El-Wadi El-Gidid	16	16	32	15	16	31	93.8	100.0	96.9
Matrouh	48	16	64	44	16	60	91.7	100.0	93.8
North Sinai	48	32	80	48	28	76	100.0	87.5	95.0
South Sinai	16	16	32	16	16	32	100.0	100.0	100.0
Total	7872	8640	16512	7178	8261	15439	91.2	95.6	93.0

6- Estimation Procedures

To obtain unbiased estimates from the HIECS data it was necessary to apply appropriate weights to the sample data based on the probabilities of selection. Given the sample design, these weights will vary to some extent for the over-sampled governorates compared with the others. It is also important to calculate measures of sampling variability for key survey estimates. The procedures for calculating the weights and variances are specified in the following sections.

A- Weighting Procedures

In order for the sample estimates for the HIECS to be representative of the population, it is necessary to multiply the data by a sampling weight, or expansion factor. The basic weight for each sample household would be equal to the inverse of its probability of selection (calculated by multiplying the probabilities at each sampling stage).

The HIECS sample is approximately self-weighting at national level and strictly self-weighting at the governorate level, it should be easy to attach a weight to each sample household record in the computer files, and the tabulation programs can weight the data automatically. The sampling probabilities at each stage of selection will be maintained in an Excel spreadsheet so that the overall probability and corresponding weight can be calculated for each sample cluster.

The selection probabilities of urban and rural samples in each governorate are presented in the following:

(1) <u>First stage sample for each 2overnorate (urban/rural substrata)</u>

$$P_{\propto} = \frac{\lambda_{\propto} M_{\alpha}}{\sum M_{\alpha}} \qquad \text{, where}$$

$P_{\propto} =$ Probability of selection of the $\propto^{th}$ PSU (EA) in the sample

$M_{\alpha} =$ Number of census households of the $\propto^{th}$ PSU

$\lambda_{\alpha} =$ Number of PSUs to be selected from the substratum (urban/rural).

(2)   Second stage sample

$$P_\lambda = \frac{\lambda_\propto}{\sum \lambda} \qquad , \text{where}$$

λ_α =Number of PSUs to be selected from the substratum (urban/rural).

$\lambda =$ Total number of PSUs (urban/rural).

(3)   Third stage sample

$$P_{\beta/\propto} = \frac{16(18)}{M_\alpha} \qquad , \text{where}$$

$P_{\beta/\propto} =$ The conditional probability of selecting the βth household given that the $\propto^{th}$ PSU was

elected

Note that the cluster size is 16 households in all governorates with the exception of urban governorates and the urban component of Giza governorate, Helwan and 6th of October ,where the cluster size is 18 households for reasons explained above.

Thus the overall sampling probability is $P_{\propto\beta} = P_\propto \times P_{\beta/\propto} \times P$

The weight, for all the households in a given cluster, is equal to the reciprocal of the overall sampling probability stated above.

The sample weights may be adjusted to account for varying response rates over the clusters. The adjusted weights would be normalized so as the weighted total of surveyed households (summation of the weights in the data file) would made equivalent to the number of actually surveyed households.

B- Survey estimates

All estimates that will be derived from the HIECS are in the form of percentage distributions, proportions, ratios, or means. Estimates can be generated by using a standard statistical package (e.g. SPSS, STATA). Survey data must be weighted before generating above estimates.

(1) <u>Mean Household Expenditure (Income)</u>

Let $\gamma_{\gamma 1}$ denotes the annual expenditure (income) of the γth household, then the weighted mean household expenditure (income),

$\overline{Y_1}$, is estimated as follows:

$$\overline{Y_1} = \frac{\sum_\gamma W_\gamma \gamma_{\gamma 1}}{\sum W_\gamma}$$

where W_γ denotes the weight associated with the γth household,

i.e., the weight of the area segment to which the γth household belongs.

(2) <u>Mean household size</u>

Let $-\gamma_{\gamma 2}$ denotes the size of the γth household , then the weighted

mean household size, $\overline{Y_2}$, is estimated as follows:

$$\overline{Y_2} = \frac{\sum_\gamma W_\gamma \gamma_{\gamma 2}}{\sum W_\gamma}$$

(3) <u>Per capita Expenditure (Income)</u>

Let $\overline{Y_3}$ denotes the per-capita expenditure (income), then:

$$\overline{Y_3} = \frac{\overline{Y_1}}{\overline{Y_2}}$$

where $\overline{Y_1}$ and $\overline{Y_2}$ are as defined in subsection 7-1 and 7-2 respectively.

(4) <u>Percentage distribution of households according to categories of expenditure (income) values</u>

Let $X_{\gamma i}$ be a dummy variable that takes 1 if the γth household falls in a certain expenditure (income) category (the ith category), and takes zero otherwise, then the weighted proportion of households that fall in the ith category is:

$$P_i = \frac{\sum_\lambda W_\gamma X_{\gamma i}}{\sum_\gamma W_\gamma}$$

The same statistical formula has been applied in estimating the percentage distributions of households according to several household characteristics.

(5) <u>Sampling Error Estimation</u>

The sampling error of major survey estimates has been derived using the Ultimate Cluster Method as applied in the CENVAR Module of the Integrated Microcomputer Processing System (IMPS) Package. In addition to the estimate of sampling error, the output includes estimates of coefficient of variation, design effect (DEFF) and 95% confidence intervals.

Panel Sample Households

A panel sample of 10028 households were selected from 2008/2009 survey, where it was put into consideration that the sample of households selected from the previous survey should be from the same month and survey period.

Conventionally, the entire survey period is divided into four exclusive quarters, the first quarter includes the first three months (July, August, and September); the second quarter consists of the following three months, and so on till the fourth quarter.

The decision was made to cover all EAs (2526 EA's) in all the survey quarters. 631 EAs were selected in each quarter, excluding those selected in the first quarter from all EAs, and same was done for the other 3 quarters.

The number of selected households in each EA were divided into clusters, where each cluster consists of 19 or 20 households. Each cluster was then divided into 4 parts with 4 or 5 households to be observed from each EA in each quarter.

In order to accomplish an appropriate allocation scheme of the sample over the entire survey period, the first stage sample was randomly divided into six equal (or approximately equal) sub-

samples; each of these sub-samples was assigned to a certain 2-week survey period.

Table (5) displays the Panel sample EAs Allocation over Governorates (urban/rural), Table (6) displays the allocation of first stage panel sample over the six 2 week periods of the survey, and Table (7) displays designed and surveyed panel sample and response rate according to governorates.

Table (5): Allocation of the Panel Sample EAs over Governorates (urban/rural)

Governorate	Urban	Rural	Total
Cairo	251	0	251
Alexandria	149	0	149
Port-said	50	0	50
Suez	50	0	50
Helwan	34	17	51
6th of October	25	63	88
Damietta	20	32	52
Dakahlia	50	126	176
Sharkia	42	133	175
Kalyoubia	56	89	145
Kafr-E1-Sheikh	20	65	85
Gharbia	44	95	139
Menoufia	23	84	107
Behera	31	121	152
Ismailia	25	27	52
Giza	105	5	110
Beni-Suef	17	52	69
Fayoum	19	59	78
Menia	26	102	128
Asyout	28	73	101
Souhag	25	89	114
Qena	20	68	88
Aswan	22	30	52
Luxur city	7	7	14
Red Sea	11	2	13
El-Wadi El-Gidid	4	4	8
Matrouh	8	3	11
North Sinai	8	6	14
South Sinai	3	1	4
Total	1173	1353	2526

Table (6): Allocation of the Panel Sample EAs over the six 2 week periods by Governorates (urban/rural)

Governorate	Urban/ Rural	1st period	2nd period	3rd period	4th period	5th period	6th period	Total
Cairo	U	10	11	11	10	10	11	63
	R	0	0	0	0	0	0	0
	T	10	11	11	10	10	11	63
Alexandria	U	7	6	6	6	6	6	37
	R	0	0	0	0	0	0	0
	T	7	6	6	6	6	6	37
Port-said	U	2	3	2	2	2	2	13
	R	0	0	0	0	0	0	0
	T	2	3	2	2	2	2	13
Suez	U	2	2	2	2	2	2	12
	R	0	0	0	0	0	0	0
	T	2	2	2	2	2	2	12
Helwan	U	1	2	2	1	1	1	8
	R	1	0	1	0	1	1	4
	T	2	2	3	1	2	2	12
6th of October	U	1	1	1	1	1	1	6
	R	2	1	2	2	2	2	11
	T	3	2	3	3	3	3	17
Damietta	U	0	1	1	1	1	1	5
	R	2	1	1	1	2	1	8
	T	2	2	2	2	3	2	13
Dakahlia	U	2	2	3	2	2	2	13
	R	6	5	5	5	5	5	31
	T	8	7	8	7	7	7	44
sharkia	U	1	2	2	2	2	2	11
	R	6	5	5	6	6	5	33
	T	7	7	7	8	8	7	44
kalyoubia	U	2	3	2	3	2	2	14
	R	4	3	4	3	4	4	22
	T	6	6	6	6	6	6	36
Kafr ElSheikh	U	1	1	0	1	1	1	5
	R	3	2	3	2	3	3	16
	T	4	3	3	3	4	4	21
Gharbia	U	2	2	2	2	1	2	11
	R	4	4	4	4	4	4	24
	T	6	6	6	6	5	6	35
Menoufia	U	1	1	1	1	1	1	6
	R	4	3	3	4	4	3	21
	T	5	4	4	5	5	4	27
Behera	U	1	2	2	1	1	1	8
	R	5	5	5	5	5	5	30
	T	6	7	7	6	6	6	38
Ismailia	U	1	1	1	1	1	1	6
	R	1	1	2	1	1	1	7
	T	2	2	3	2	2	2	13
Giza	U	4	5	5	4	4	4	26
	R	1	1	1	1	1	2	7
	T	5	6	6	5	5	6	33

Cont. table(6): Allocation of the Panel Sample EAs over the six 2 week periods by Governorates (urban/rural)

Governorate.	Urban/ Rural	1st period	2nd period	3rd period	4th period	5th period	6th period	Total
Beni-Suef	U	1	1	1	0	1	0	4
	R	2	2	2	3	2	2	13
	T	3	3	3	3	3	2	17
Fayoum	U	1	1	1	0	1	1	5
	R	2	2	2	3	2	3	14
	T	3	3	3	3	3	4	19
Menia	U	1	1	1	1	1	2	7
	R	4	4	4	4	5	4	25
	T	5	5	5	5	6	6	32
Asyout	U	1	1	2	1	1	1	7
	R	3	3	3	4	3	3	19
	T	4	4	5	5	4	4	26
Suhag	U	1	1	1	1	1	1	6
	R	4	3	3	4	4	4	22
	T	5	4	4	5	5	5	28
Qena	U	0	1	1	1	1	1	5
	R	3	2	3	3	3	3	17
	T	3	3	4	4	4	4	22
Aswan	U	1	1	1	1	1	1	6
	R	1	1	1	2	1	1	7
	T	2	2	2	3	2	2	13
Luxury city	U	0	0	1	0	0	1	2
	R	1	0	0	0	1	0	2
	T	1	0	1	0	1	1	4
Red Sea	U	0	1	0	0	1	0	2
	R	0	0	0	1	0	0	1
	T	0	1	0	1	1	0	3
El-Wadi El-Gidid	U	0	0	1	0	0	0	1
	R	0	0	0	0	0	1	1
	T	0	0	1	0	0	1	2
Matrouh	U	0	1	0	1	0	0	2
	R	0	0	0	0	0	1	1
	T	0	1	0	1	0	1	3
North Sinai	U	1	0	0	0	1	0	2
	R	0	0	1	0	0	0	1
	T	1	0	1	0	1	0	3
South Sinai	U	0	0	0	0	0	1	1
	R	0	0	0	0	0	0	0
	T	0	0	0	0	0	1	1
Total	U	45	54	53	46	47	49	294
	R	59	48	55	58	59	58	337
	T	104	102	108	104	106	107	631

Table (7) Designed and Surveyed Panel Sample and Response Rate According to Governorate

Governorate.	Designed Sample			Surveyed Sample			Response rate%		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Cairo	960	0	960	745	0	745	77.6	0.0	77.6
Alexandria	596	0	596	451	0	451	75.7	0.0	75.7
Port-said	200	0	200	173	0	173	86.5	0.0	86.5
Suez	200	0	200	167	0	167	83.5	0.0	83.5
Helwan	124	60	184	105	53	158	84.7	88.3	85.9
6th of October	104	240	344	74	216	290	71.2	90.0	84.3
Damietta	80.0	128	208	76	121	197	95.0	94.5	94.7
Dakahlia	200.0	504	704	176	463	639	88.0	91.9	90.8
sharkia	168.0	532	700	142	495	637	84.5	93.0	91.0
kalyoubia	224.0	356	580	186	315	501	83.0	88.5	86.4
Kafr-E1-Sheikh	80.0	260	340	73	251	324	91.3	96.5	95.3
Gharbia	176.0	380	556	144	372	516	81.8	97.9	92.8
Menoufia	88.0	336	424	82	313	395	93.2	93.2	93.2
Behera	124	484	608	117	460	577	94.4	95.0	94.9
Ismailia	100	108	208	83	102	185	83.0	94.4	88.9
Giza	420	20	440	294	20	314	70.0	100.0	71.4
Beni-Suef	68	208	276	60	202	262	88.2	97.1	94.9
Fayoum	76	236	312	67	222	289	88.2	94.1	92.6
Menia	104	408	512	93	393	486	89.4	96.3	94.9
Asyout	112	292	404	92	286	378	82.1	97.9	93.6
Suhag	100	356	456	87	315	402	87.0	88.5	88.2
Qena	80	272	352	70	258	328	87.5	94.9	93.2
Aswan	88	120	208	85	116	201	96.6	96.7	96.6
Luxury city	28	28	56	25	25	50	89.3	89.3	89.3
Red Sea	44	8	52	8	4	12	18.2	50.0	23.1
El-Wadi El-Gidid	16	16	32	15	15	30	93.8	93.8	93.8
Matrouh	32	12	44	24	9	33	75.0	75.0	75.0
North Sinai	32	24	56	19	9	28	59.4	37.5	50.0
South Sinai	12	4	16	8	4	12	66.7	100.0	75.0
Total	4636	5392	10028	3741	5039	8780	80.7	93.5	87.6

SECTION 3

Survey Instruments and Tools

First: Questionnaires used in the survey

Three different questionnaires have been designed as following:

1- Expenditure and Consumption Questionnaire.

2- Diary Questionnaire (Assisting questionnaire).

3- Income Questionnaire.

In designing the questionnaires of expenditure, consumption and income, we were taking into our consideration the following:

- Using the recent concepts and definitions of International Labor Organization approved in the International Convention of Labor Statisticians held in Geneva, 2003.

- Using the recent Classification of Individual Consumption According to Purpose (COICOP).

- Using more than one approach of expenditure measurement to serve many purposes of the survey.

A brief description of each questionnaire is given next:

1- Expenditure and Consumption Questionnaire

This questionnaire comprises 14 tables in addition to identification and geographic data of household on the cover page. The questionnaire is divided into two main sections.

Section one: Household schedule and other information, it includes:

1- Demographic characteristics and basic data for all household individuals consisting of 26 questions for every person.

2- Members of household who are currently working abroad.

3- The household ration card.

4- The main outlets that provide food and beverage.

5- Domestic and foreign tourism.

6- The housing conditions including 16 questions.

7- Household ownership of means of transportation, communication and domestic appliances.

8- Date of purchase, status at purchase, purchase value and current imputed value of the household possessed appliances and means of transportation.

This section includes some questions which help to define the social and economic level of households which in turn, help interviewers to check the plausibility of expenditure, consumption and income data.

Section two: Expenditure and consumption data It includes 14 tables as follows:

1- The quantity and value of food and beverages commodities actually consumed.
2- The quantity and value of the actual consumption of alcoholic beverages, tobacco and narcotics.
3- The quantity and value of the clothing and footwear.
4- The household expenditure on housing.
5- The household expenditure on furnishings, household equipment and routine maintenance of the house.
6- The household expenditure on health care services.
7- The household expenditure on transportation.
8- The household expenditure on communication.
9- The household expenditure on recreation and culture
10- The household expenditure on education.
11- The household expenditure at restaurants and hotels.
12- The household expenditure on miscellaneous goods and services.
13- Transfer payments.
14- Total annual household expenditure (prepared in office)

The tables from 1 to 13 include all types of commodities and services (778 Items), 47 Sub-group and 12 Main groups in addition to transfer payments.

This questionnaire has been designed to be pre-coded for all expenditure items and household characteristics, to avoid possible coding mistakes, except for the occupation and industry. Those were coded at the office following the International classifications for occupation and industry. On the questionnaire cover, geographic information were coded at the office, as well, following the Administrative Classification.

The questionnaire was designed to cover different reference periods for expenditure data, since they differ based on the expenditure nature. The reference period agreed upon for regular consumption of commodities such as those related to food and beverage is two weeks. Alcoholic beverages and Tobacco are collected for a reference of one month ending by the end of the survey period. Commodities and services consumed on a semi-regular basis are collected for a reference of 3 month while commodities and services consumed less regularly are collected on annual basis, ending by the end of the survey period.

The total number of items is increased to 778 commodity and service compared to 771 in 2008/2009 survey compared with 746 in the last survey as follows:

Main and Sub-Groups of Goods and Services

Main and Sub-Groups	No. of Goods &Services
Food and non-alcoholic beverages:	
Bread and cereals.	39
Meat.	34
Fish and sea food.	10
Milk, cheese and eggs.	26
Oils and fats.	15
Fruit.	73
Vegetables.	81
Sugar, jam, honey, chocolate and confectionery.	15
Food products n.e.c.	9
Non-alcoholic beverages	17
Alcoholic beverages tobacco and narcotics:	
Alcoholic beverages.	3
Tobacco.	9
Narcotics.	1
Clothing and footwear:	
Clothing materials.	10
Garments.	54
Other articles of clothing and clothing accessories.	6
Cleaning, repair and hire of clothing.	8
Footwear.	11
Used garments.	1
Housing, water, electricity, gas and other fuels:	
Actual rentals for housing.	6
Imputed rentals for housing.	3
Maintenance and repair of the dwelling.	2
Water supply and miscellaneous services relating to the dwelling.	8
Electricity, gas and other fuels.	8

(Cont.) Main and Sub-Groups of Goods and Services

Furnishings, household equipment and routine household maintenance:	
Furniture and furnishings, carpets and other floor coverings.	8
Household textiles.	11
Household appliances.	21
Glassware, tableware and household utensils.	9
Tools and equipment for house and garden.	10
Goods and services for routine household maintenance.	17
Used furniture and furnishings and household equipments.	1
Health:	
Medical products, appliances and equipment.	6
Outpatient services.	18
Hospital services.	6
Transport :	
Purchase of vehicles.	8
Operation of personal transport equipment.	15
Transport services.	12
Communication:	
Postal services.	1
Telephone and telefax equipment.	6
Telephone and telefax services.	8
Recreation and culture:	
Audio-visual, photographic and information processing equipment.	20
Other major durables for recreation and culture.	8
Other recreational items and equipment, gardens and pets.	18
Recreational and cultural services.	15
Newspapers, books and stationery.	13
Package holidays.	6
Used major durables for recreation and culture.	1
Education	
Pre-primary and Primary education.	9
Secondary education.	5
Post-secondary non-tertiary education.	4
Tertiary education.	5
Education not definable by level.	4
Restaurants and hotels	
Catering services.	11
Accommodation services.	5
Miscellaneous goods and services	
Personal care.	10
Personal effects N.E.C.	14
Social security	6
Other services (not classified).	10
Transfer payments	8
Total	**778**

2 - Diary Questionnaire (Assisting questionnaire)

The assisting questionnaire has been prepared to help households recording — on a daily basis- the quantity and value of what have been consumed of food and beverages during the reference period (15 days).

Therefore, this questionnaire is considered the main source of expenditure data on food and beverage, and was designed in a very simple form to facilitate using it by the surveyed household and the interviewers during their frequent visits to the household.

Due to the importance of such a questionnaire, the households are required to record their expenses daily, and the interviewers are instructed to check what households have recorded during their 6 visits to the household during the survey period. In case of the inability of some households to record their daily expenditure, the interviewer has to do so.

The questionnaire includes:

    a- Letter addressed to the head of household to inform him/her about the importance of survey so that his/her cooperation may be stimulated.

    b- Instructions of data recording for households and interviewers.

    c-A group of modules to record daily consumption of household as follows:

Module (A): Includes twenty pages to record the daily consumed quantity and value of food and beverages, during the survey period. Each pages consists of 4 columns and each column is used to register the data of one good, including:

- Date.
- source of commodity
- quantity
- value

Module (B): Includes eight pages to record the value of expenditure for meals and tobacco outside the house, in addition to the value of expenditure for food prepared outside the house and consumed inside the house.

Module (C1): Includes 12 pages to record the total of quantity and value of consumed food and beverages according to source, either from household production or in-kind transfer, during the survey period using the data recorded in Module (A).

Module (C2): Includes 6 pages to record the total of quantity and value of actually consumed food and beverages according to source, either from household production or in-kind transfer,

during the survey period using the data recorded in Module (A).

Module (D): Includes two pages to record total expenditure on food and beverages consumed outside home during the survey period using the data recorded in Module (B).

3- Income questionnaire

It includes annual household income data according to income sources (excluding irregular incomes).

It consists of several tables; each is designated to a specific income source. These sources are:

a- Wages and salaries for wage/salary for earners among household members.

b- Self-employed income from agriculture projects.

c- Self-employed income from non Agriculture projects.

d- Financial properties such as stocks, bonds, deposits and investment certificates.

e- Non- financial properties such as agriculture or non-agriculture land and rented to others properties.

f- Imputed rent of owner-occupied dwellings.

g- Received cash and in kind transfers

Second: Classifications

1- Classification of Occupation

The occupational classification for 2005 which is derived from the 1988 International Standard Classification of Occupation (ISCO) has been used in coding occupations into six digits after being slightly modified to better suit Egypt's conditions.

2- Classification of Industry

The industry classification for 2007 which is derived from the International Standard Industry Classification (ISIC)- Revision 4 - has been followed in the coding process at the level of four digits. Hence, classification of industry cannot be made lower than the four-digit level. In this respect, the industry of persons working outside establishments has been deduced from their occupation. For example, the industry assigned to a mason working outside establishment is construction and so on for similar cases level.

3- Administrative Classification

The Administrative Classification has been used in coding statistical data geographically according to governorates, kism, Markez and villages as well as the new cities, established inside all governorates.

4- Classification of Individual Consumption according to Purpose (COICOP)

Classification of Individual Consumption according to Purpose (COICOP) has been used. It is adopted by the United Nations Statistical Commission for use with the SNA (UNSD, 1993). This classification system is a functional classification of expenditures by the purposes or objectives for which household expenditures occurred. It is used for analysis at national level; especially for purposes of compiling consumer price indices. It consists of 12 divisions and 47 groups.

SECTION 4
Definitions and Concepts

First: Survey Unit

The household has been taken as the survey unit. It is defined as: one person or a group of persons who share the living (food and house) regardless of whether they are in kinship or marriage relationship. The de-jure enumeration is applied. Visitors and guests were included amongst household members only if their stay duration extended to 6 months or more.

According to this definition, household members include:

1- Persons who are usually living with the household and present at the time of survey.
2- Persons who are usually living with the household but temporarily absent at time of survey.
3- Military persons; and civilians working for the military force and police staff whether present or absent at survey time.
4- Students who are living away of their families such as those who are staying in public dwellings e.g., guest houses, dormitories and hostels.
5- Servants who are sharing the household food and accommodation.

Second: Survey Periods

Survey period is the duration of data collection from households included in the survey sample (15 days), where each households has been visited 6 times. The fieldwork has extended one year starting from 1/7/2010 till 30/6/2011.

Third: Reference Period

Reference period over which data was collected varies according to the type of data item as follows:

15 days:	for expenditure on food and beverages.

Month:	for expenditure on alcoholic beverages, tobacco and narcotics, housing and its accessories goods and services for routine household maintenance, health, operation of personal transport equipments, transport services, restaurants and hotels, personal care and other services n.e.c.

Quarterly:	for expenditure on health, Communication.

Annually:	for expenditure on clothing and footwear, housing and its accessories, furnishings, household equipments and routine maintenance of the house, health, transport, communication, recreation and culture, education, restaurants and hotels and miscellaneous goods and services.

It is worth noting that in some cases the groups of commodities or services include more than one period such as health which has monthly, quarterly and annually items, on which the expenditure ends by the end of the survey period, depending upon the consumption frequency of these items.

Fourth: Basic Definitions and Concepts

1- Household Head

The head of a household is defined as the one considered as such by the rest of household members irrespective of his age and sex. Usually, the household head is responsible for supporting the household and taking expenditure decisions.

2- Housing unit

The place where the household live and it might be

a- Ordinary dwellings

The units or places prepared for housing such as (apartment, villa, countryside house, room or more in a dwelling, separate room or more).

b- Marital residence/unordinary dwellings

The places which are not mainly prepared for housing but occupied by households such as (stores, garages, etc.).

3- Educational Status

It refers to the status of a person (10 years +) with regard to the highest attained educational level. It includes the following categories:

a- Below age.

b- Illiterate.

c- Read and write.

d- Literacy certificate.

e- Below intermediate (primary/preparatory).

f- Academic secondary certificate.

g- Technical secondary certificate.

h- Above intermediate & below university.

i- University degree and above

j- Above university degree (Diploma, Masters, PhD).

4- Marital Status

It refers to the status of persons aged 18+ with regard to marriage and divorce laws and customs. It includes the following categories:

a- Below age

b- Never married

c- Legally married

d- Married

e- Divorced

f- Widowed

5- Work Status

It refers to the person status concerning his/her work relationship during the week preceding the interviewer first visit. It includes the following categories

A- Working Population

They are the individuals (6 years +) who perform any economic activity for some time (one hour at least) during the reference period (one week) whether inside or outside establishments. Included in this definition: individuals having jobs but temporally absent from their work during the reference period because of illness; annual leave; training or study leave; labor dispute; or irregularity of work in the establishment for temporary reasons or due to the nature of the establishment activity.

B- Unemployment

They are individual, aged (6-64 years) who are physically able to work, willing to work and actively seeking work, but did not find it during the survey week, Unemployment is divided into:

(1) Ever worked unemployed

This applies to a person who has ever worked before but found unemployed in the reference period according to above criteria.

(2) Never worked unemployed

This refers to the new entrants to the labor market for the first time such as graduates who have not started their working life yet.

C- Working student

Full time student but working during the survey week.

D- Working house keeper

Females engaged in ordinary housework and duties but found having a gainful work during the survey week.

E- Individuals out of labor force:

They are the individuals in the age span 6-64 years who are physically able to work but did not practice any gainful work during the reference period for some reasons such as:

(1)   Family's circumstances (dedicated to homework).
(2)   Preparation for entering into the labor market (full time students).
(3)   No work desire (not interested).
(4)   Retired persons.
(5)   The disability that temporary prevents individual from work.
(6)   Persons are in unpaid leaves for one year or more and don't work.
(7)   Individuals who are in compulsory military service or perform public
        service.
(8)   Hospitalized persons who are not engaged in work.
(9)   Prisoners.
(10) Persons (6 -12 years) who are not working or studying.

F- Individual Outside human force

(1)   Children (less than 6 years)
(2)   Persons of 65 years or more, not work.
(3)   Totally disabled persons aged (6-64 years).

6- Employment Status

It refers to the status of the working person aged 6+ with regard to the nature of his/her work relationship during the reference period. It includes the following categories:

a- <u>Wage worker:</u>

This is the person who works for others in return of regular monetary or in kind wages/salaries (daily/weekly/monthly) during the reference period.

b- <u>Employer:</u>

This is the person who operates his/her own business (Agricultural, Industrial, Commercial or services) and hire one or more employees with or without wages whether they are among his household's members or no.

c- <u>Own account worker:</u>

This is the person who operates his/her own business or engages independently in a profession or trade and hires nobody.

d- <u>Unpaid family worker:</u>

This person, who works for others, usually relatives, without receiving any kind of regular payments.

e- <u>Unpaid Worker:</u>

This is the person who works for others (nonfamily persons) without any kind of regular payments, they are usually newly graduates like those who train in lawyer offices or those who learn handcrafts.

7- Main Occupation (6+ years)

It refers to the kind of the main work done by a currently working person or the last work performed by an ever - worked unemployed person in which he/she spent most of his/her time regardless of the industry of the establishment to which he/she belongs.

8- Economic Activity

    A- It indicates the major field of production practiced by the establishment for which the currently working person works or by the latest establishment for which the ever- worked unemployed was working.

    B- For persons working outside establishments the economic activity is deduced from the occupation, for instance, the economic activity assigned to vegetable mobile vendors is retail trade of vegetables and for fanners is agriculture.

    C - For Military persons, the economic activity is governmental services.

9- Sector

It refers to the economic sector of the establishment for which currently working person works, or of the latest establishment for which an ever-worked unemployed person was working.

It comprises of the following categories:

- Governmental
- Public / Public Business.
- Private investment.
- Private.
- Joint.
- Co-operative
- Non- Governmental Organizations (NGOs).
- Others
- Outside establishments

10- Main job

This is the job in which the worker spent most of his/her time during the reference week. In case if the person has multiple jobs and allocates his/her working time among them equally, the one with highest return is considered the main job. As an exception of this definition, if the person works for the government or the public sector and has other jobs the former considered the main job irrespective of time and return criteria.

11- Secondary job

This refers to the second job that the person might have had during the reference period. As mentioned above, the secondary job is considered as such if the person spent in it less time or received less return, In case of equal time allocation between the main and secondary jobs, the work place of the secondary job must be different from that of the main job. However, the work for government or public sector is never considered secondary job.

12- Household Consumption Expenditure

Household consumption expenditure is the value of consumer goods and services acquired, used or paid for by a household through direct monetary purchases, own-account production, barter or as income in-kind for the satisfaction of the needs and wants of its members.

13- The actual final consumption

The actual final consumption of a household is the sum of its household consumption expenditure and the value of consumer goods and services acquired or used by the household through transfers from government, non-profit institutions or other households.

14- Transfer payments

It refers to cash or in kind transfers paid by household to others either inside or outside Egypt. It is the value of expenses paid by the household to non-household individuals such as gifts, assistance charity, It includes also direct taxes on income.

15- Household Expenditure

Household expenditure is defined as the sum of household consumption, expenditure and the non-consumption expenditures of the household. The latter are those expenditures incurred by a household as transfers made to government, non-profit institutions and other households, without acquiring any goods or services in return for the satisfaction of the needs of its members. Household expenditure represents the total outlay that a household has to make to satisfy its needs and meet its "legal" commitments.

16 - Measurement of Household Expenditure

Consumption Expenditure may be measured in terms of:

A- <u>Use approach</u>

Implies the total value of all goods and services actually consumed during the reference period irrespective of whether they were acquired during that period or not, and whether the full payment was made during that period or not. Here, we used this approach in food and non alcoholic beverages and alcoholic beverages, tobacco and narcotics.

B- <u>Acquisition approach</u>

Implies the total value of goods and services delivered during the reference period, whether the full payment for the goods and services was made during that period or not, and whether they were used during that period or not. Here we used this approach in clothing and footwear.

C- <u>Payment approach</u>

Implies the total payment made for goods and services during the reference period irrespective of whether the goods and services paid for were fully delivered during that period or not, and whether they were used during that period or not. Here we used this approach in housing and its accessories, health, operation of personal transport equipments, transport services, communications, other recreational items and equipments, gardens and pets, recreational and cultural services, newspapers, books and stationery, package holidays, education, restaurants and hotels and personal care.

Acquisition and payments approaches are used here in furnishings, household equipments and routine maintenance of the house, purchase of vehicles and some items of recreation and culture such as audio- visual, photographic and information processing equipments and other major durables recreation and culture. the purpose of applying acquisition and payment approaches to durable and semi-durable items is to serve for both the compilation of consumer price index (acquisition) and welfare analysis (payment).

17- Household Income

It consists of all receipts whether monetary or in kind (goods and services) that are received by the household or by individual members of the household at annual or more frequent intervals, but exclude servant income and windfall gains and other such irregular and typically one-time receipts.

18- Income Sources

A- Income from employment

It comprises receipt for participation in economic activities in a strictly employment-related capacity. It consists of:

(1) *Employee income*

It comprises direct wages and salaries for time worked and work done, cash bonuses and gratuities, commissions and tips, directors' fees, profit-sharing bonuses and other forms of profit- related pay, remuneration for time not worked as well as free or subsidized goods and services from an employer. It may include severance and termination pay as well as employers' social insurance contribution.

(2) *Income from self-employment*

It is income received by individuals, over a given reference period, as a result of their involvement in self-employment jobs.

B- Property Income

It is defined as receipts that arise from the ownership of assets (return for use of assets) that are provided to others for their use. These are returns, usually monetary, from financial assets (interests, dividends), from non-financial assets (rents and from royalties (return for services of patented or copyright material).

C- Income from Household Production of Services for Own Consumption

It consists of the net estimated value of housing services provided by owner-occupied dwellings, of unpaid domestic services and of services from household consumer durables. Because of measurement issues, only owner-occupied dwellings is considered.

D- <u>Transfer Incomes</u>

Transfers are receipts for which the recipient does not give anything to the donor in direct return for the receipts. Transfers can consist of cash (in the monetary sense), of goods or of services. Current transfers are those that usually recur regularly (relative to the reference year), tend to be small and are also mostly available for use during the reference period.

SECTION 5
Implementation Stages

First : Fieldwork

1- The field staff was selected from among the efficient experienced persons working in CAPMAS and new graduates specially females.

2- Intensive training program for supervisors was conducted at CAPMAS in Cairo and locally in governorates for interviewers and field editors.

3- Supervision program was implemented (each 15 days) in all governorates to check the field work to overcome the field problems.

4- Data were collected by using personal interview method for household in dwelling and it had been obtained from the head of household or wife or any eligible person in case of their absence.

5- Duties and responsibilities of all levels of field staff (interviewer, editor and supervisor) were defined to insure the accuracy and timing. These are outlined next:

A- Interviewers

Every one of them was responsible for data collection of five households during 15 days with six visits as follows:

(1) First visit

(a)   It started before the survey period by one or two days. Its purpose is to ensure the existence of the household, meet the head of household, present herself and her CAPMAS card to him. She also gives the household a simple idea about the survey (its objectives, importance and required data especially expenditure and consumption data).

(b)   Showing households the methods of recording their daily data and knowing the suitable time for visiting them. Also delivering the diary book to the household.

(c)   In case of the household refusal of cooperating with the interviewer, she has to convince them and if she failed, she must inform her supervisor.

(2) Second visit

This visit is made in the middle of the first week of the survey period and it includes the following:

(a)   Editing the recorded data of expenditure and consumption in the diary book by the household.

(b)   Completing the data of the third table related with the quantity and value of clothing and footwear that the household obtained and table four related to household expenditure on housing, water, electricity, gas, and other fuel.

(3) Third visits

It is the same as the previous visit but made in the second part of the first week. In addition to checking household recording of expenditure, the interviewer have to complete the following tables:

- The Fifth table: related to household expenditure on furnishings, household equipment and routine maintenance of the house.

- The Sixth table : related to household expenditure on health.

- The Seventh table: related to household expenditure on transportation.

(4) Fourth visit

This visit was in the first part of second week and it includes the following:

(a)   Recording or editing the recorded data of expenditure and consumption during the first week and following up recording data of expenditure outside the home on catering services.

(b)   Completing these tables:

- The Eighth table : related to household expenditure on communication.

- The Ninth table : related to household expenditure on recreation and cultural services.

- The Tenth table : related to household expenditure on education.

(5) <u>Fifth visit</u>

This visit was in the middle of the second week .It included the followings:

(a) Recording or editing the recorded data of expenditure and consumption of commodities and services in diary questionnaire during the following days of previous visit.

(b) Following up recording the data of expenditure on restaurants, coffees and hotels.

(c) Completing the data of:

- The Eleventh table related to household consumption on restaurants, coffees and hotels
- The Twelfth table related to household expenditure on miscellaneous goods and services
- The Second table related to actual household consumption of alcoholic beverages, tobacco and narcotics.

(d) Completing the first Table related to the quantity and value of food and beverages actually consumed during the survey period.

(e) Completing the thirteenth table related to transfer payments during the year ended with survey period.

(f) Editing data of expenditure and writing clarification notes of any inconsistencies in the data.

(6) <u>Sixth visit</u>

It is made in the beginning of the days following the survey period. It includes the following:.

(a) Completing the missing data.

(b) Filling down the income data for individuals having income in the household except servants.

B- Editor

The Editor was responsible for checking the work of the interviewers working immediately under his guidance.

C- Supervisor

They were responsible for financial and technical aspects of all the survey stages especially:

(1) Selecting interviewers (females) and editors (males) and send the list of their names to the administration of survey.

(2) Attending the central training in Cairo.

(3) Training the interviewers on field work .

Second: Office Editing and Coding

1-   <u>Office Editing</u>

It is one of the main stages of the survey. It started as soon as the questioners were received from the field and accomplished by selected work groups. It includes:

a- Editing of coverage and completeness

b- Editing of consistency

c- Arithmetic editing of quantities and values.

2-   <u>Coding</u>

Specialized staff has coded the data of industry, occupation and geographical identification.

Third: Data Processing and preparing final results

It included machine data entry, data validation and tabulation and preparing final survey volumes

Fourth: Quality Control Procedures

Those procedures included:

<u>1- Procedures implemented by the survey division</u>

1- Applying the recent international recommendations of different concepts and definitions of income and expenditure considering maintaining the consistency with the previous surveys in order to compare and study the changes in pertinent indicators.

2- Evaluating the quality of data in all different Implementation stages to avoid or minimize errors to the lowest extent possible through:

   a- Implementing field editing after finishing data collection for households in governorates to avoid any errors in suitable time.

   b- Setting up a program for the Survey Technical Committee Members and survey staff for visiting fieldwork in all governorates (each 15 days) to solve any problem in the proper time.

   c- For the purpose of quality assurance, tables were generated for each survey round where internal consistency checks were performed to study the plausibility of consistency of data collected.

2- Procedures implemented by the quality control general division

A- It was put into consideration during the survey implementation to assign the quality control general division a core role in controlling the quality of the fieldwork to ensure data accuracy and avoid any errors in suitable time, as well as taking all the necessary measures to guarantee that mistakes are not repeated, with the application of the principle of reward and punishment, and announce the results to all those working in the survey.

B- 24 quality control rounds (2 rounds weekly) covering all governorates were implemented. A complete report on the results of each round was produced and distributed to all workers in the survey.

The quality control procedures covered 73.2% of total kism/district in urban areas, 48.3% of rural districts, and 48% of total EAs of the new sample, where the percentage of inconsistencies did not exceed 2%.

As for the panel sample, the quality control procedures covered 50.3% of total kism/district in urban areas, 16.9% of rural districts, and 14.2% of total EAs of the new sample, where the percentage of inconsistencies did not exceed 2.1%.