

# Philippines - Family Income and Expenditure Survey 2012 Volume 1

**Philippine Statistics Authority**

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## Overview

### Identification

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### Version

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V.3 PUF

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### Overview

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#### ABSTRACT

The 2012 Family Income and Expenditure Survey (FIES) adopted the 2009 Philippine Classification of Individual Consumption According to Purpose (PCOICOP). The 2009 PCOICOP is the first standard classification of individual consumption expenditure in the country prepared by the National Statistical Coordination Board (NSCB) in collaboration with concerned agencies in the Philippine Statistical System (PSS). The 2009 PCOICOP was patterned after the 1999 Classification of Individual Consumption According to Purpose (COICOP) issued by the United Nations Statistics Division (UNSD).

The 2012 FIES is a sample survey designed to provide income and expenditure data for the country and its seventeen (17) regions. These data are the basic sources of information on human development and the basis of the policies and programs of the government to improve the socio-economic conditions of the Filipino people.

The survey was conducted in two separate rounds using separate questionnaires with the same set of questions. The first was conducted in July 2012 and the second was in January 2013. For each round, the reference period was the half-year period preceding the survey.

KIND OF DATA  
Sample survey data [ssd]

#### UNITS OF ANALYSIS

The reporting unit was the household which implied that the statistics emanating from this survey referred to the characteristics of the population residing in private households. Institutional population is not within the scope of the survey.

For FIES, the concept of family was used. A family consists of the household head, spouse, unmarried children, ever-married children, son-in-law/daughter-in-law, parents of the head/spouse and other relatives who are members of the household.

In addition, two or more persons not related to each other by blood, marriage or adoption are also considered in this survey. However, only the income and expenditure of the member who is considered as the household head are included.

### Scope

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#### NOTES

The survey gathered income and expenditure data that include, among others, sources of income in cash and in kind and the levels of consumption by item of expenditure.

#### TOPICS

Topic	Vocabulary	URI
Income and consumption	Philippine Statistics Authority	
Household surveys	Philippine Statistics Authority	

## Coverage

### GEOGRAPHIC COVERAGE

The 2003 Master Sample (MS) considers the country's 17 administrative regions as defined in Executive Orders (EO) 36 and 131 as the sampling domains. A domain is referred to as a subdivision of the country for which estimates with adequate level of precision are generated. It must be noted that while there is demand for data at the provincial level (and to some extent municipal and barangay levels), the provinces were not treated as sampling domains because there are more than 80 provinces which would entail a large resource requirement. Below are the 17 administrative regions of the country:

National Capital Region

Cordillera Administrative Region

Region I - Ilocos

Region II - Cagayan Valley

Region III - Central Luzon

Region IVA - CALABARZON

Region IVB - MIMAROPA

Region V - Bicol

Region VI - Western Visayas

Region VII - Central Visayas

Region VIII - Eastern Visayas

Region IX - Zamboanga Peninsula

Region X - Northern Mindanao

Region XI - Davao

Region XII - SOCCSKSARGEN

Region XIII - Caraga

Autonomous Region in Muslim Mindanao

### UNIVERSE

The 2012 FIES has as its target population, all households and members of households nationwide. A household is defined as an aggregate of persons, generally but not necessarily bound by ties of kinship, who live together under the same roof and eat together or share in common the household food. Household membership comprises the head of the household, relatives living with him such as his/her spouse, children, parent, brother/sister, son-in-law/daughter-in-law, grandson/granddaughter and other relatives. Household membership likewise includes boarders, domestic helpers and non-relatives. A person who lives alone is considered a separate household.

## Producers and Sponsors

## PRIMARY INVESTIGATOR(S)

Name	Affiliation
Philippine Statistics Authority	National Economic and Development Authority

## FUNDING

Name	Abbreviation	Role
Government of the Philippines	GOP	Full funding

## Metadata Production

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## METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Income and Employment Statistics Division	IESD	Philippine Statistics Authority	Documenter

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## DDI DOCUMENT VERSION

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## DDI DOCUMENT ID

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# Sampling

## Sampling Procedure

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The 2012 FIES utilized the 2003 Master Sample. As in most household surveys, the 2003 MS made use of an area sample design. For this purpose, the Enumeration Area Reference File (EARF) of the 2000 Census of Population and Housing (CPH) was utilized as sampling frame. The EARF contains the number of households by enumeration area (EA) in each barangay.

This frame was used to form the primary sampling units (PSUs). With consideration of the period for which the 2003 MS will be in use, the PSUs were formed/defined as a barangay or a combination of barangays with at least 500 households.

The 2003 MS considers the 17 regions of the country as the primary strata. Within each region, further stratification was performed using geographic groupings such as provinces, highly urbanized cities (HUCs), and independent component cities (ICCs). Within each of these substrata formed within regions, the PSUs were further stratified, to the extent possible, using the proportion of strong houses (PSTRONG), indicator of engagement in agriculture of the area (AGRI), and a measure of per capita income (PERCAPITA) as stratification factors.

The 2003 MS consists of a sample of 2,835 PSUs. The entire MS was divided into four sub-samples or independent replicates, such as a quarter sample contains one fourth of the total PSUs; a half sample contains one-half of the four sub-samples or equivalent to all PSUs in two replicates.

The final number of sample PSUs for each domain was determined by first classifying PSUs as either self-representing (SR) or non-self-representing (NSR). In addition, to facilitate the selection of sub-samples, the total number of NSR PSUs in each region was adjusted to make it a multiple of 4.

SR PSUs refers to a very large PSU in the region/domain with a selection probability of approximately 1 or higher and is outright included in the MS; it is properly treated as a stratum; also known as certainty PSU. NSR PSUs refers to a regular too small sized PSU in a region/domain; also known as non certainty PSU. The 2003 MS consists of 330 certainty PSUs and 2,505 non-certainty PSUs.

To have some control over the sub-sample size, the PSUs were selected with probability proportional to some estimated measure of size. The size measure refers to the total number of households from the 2000 CPH. Because of the wide variation in PSU sizes, PSUs with selection probabilities greater than 1 were identified and were included in the sample as certainty selections.

At the second stage, enumeration areas (EAs) were selected within sampled PSUs, and at the third stage, housing units were selected within sampled EAs. Generally, all households in sampled housing units were enumerated, except for few cases when the number of households in a housing unit exceeds three. In which case, a sample of three households in a sampled housing unit was selected at random with equal probability.

An EA is defined as an area with discernable boundaries within barangays consisting of about 150 contiguous households. These EAs were identified during the 2000 CPH. A housing unit, on the other hand, is a structurally separate and independent place of abode which, by the way it has been constructed, converted, or arranged, is intended for habitation by a household.

The 2012 FIES involved the interview of a national sample of about 50,000 sample households deemed sufficient to gather data on family income and family expenditure and related information affecting income and expenditure levels and patterns in the Philippines at the national and regional level. The sample households covered in the survey were the same households interviewed in the July 2012 and January 2013 round of the LFS.

## Response Rate

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The response rate for this survey is 90.1 percent. The response rate is the ratio of the total responding households to the total number of eligible households. Eligible households include households who were completely interviewed, refused to be interviewed or were temporarily away or not at home or on vacation during the survey period.

## Weighting

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In the 2003 Master Sample Design, the probability that a household is included in the sample varies across domains/regions. However, the sampling design is epsem within domain (i.e. equal selection probabilities within region). The initial step in the construction of weights is to determine the unit's base weight. This is defined as the inverse of its selection probabilities. The base weight is further adjusted to take into account possible non-response and possibly to make the estimates conform to some known population totals.

The final survey weight assigned to each responding unit is computed as the product of the base weight, the non-response adjustment and the population weighting adjustment (in the case of households as responding unit - the household population weighting adjustment).

# Questionnaires

## Overview

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The questionnaire collects information on family income, sources of income, family expenditure and related information affecting family income and expenditure levels and patterns in the Philippines.

# Data Collection

## Data Collection Dates

Start	End	Cycle
2012-07-08	2012-07-31	Visit 1
2013-01-08	2013-01-31	Visit 2

## Time Periods

Start	End	Cycle
2012-01-01		Visit 1 - First Phase
2012-07-01		Visit 2 - Second Phase

## Data Collection Mode

Face-to-face [f2f]

## Data Collection Notes

### Training

The training was conducted in three (3) levels. The first level involves the training of task force members participated by selected central office (CO) personnel, selected provincial statistical officer (PSO), regional statistician, and selected provincial staff. The selected Income and Employment Statistics Division (IESD) staff will train them.

The second level training shall be held at the Regional Offices (RO). Provincial Statistical Officers (PSO), Regional Statisticians, and Provincial Statisticians who attended the Task Force Training will act as trainers during the second level training.

The the third level training will be attended by District Statistical Officer (DSOs), Statistical Coordination Officer (SCOs) and hired Statistical Researchers (SRs). The training shall be conducted for five (5) days for the LFS/FIES.

The first phase of survey operation was conducted in July 2006 and data gathered were for the period January 1 to June 30, 2012. The second phase of operation was conducted in January 2007 and gathered information for the period July 1 to December 31, 2012.

### Standard Output Per Day

The expected output of completed interviews per manday may vary. For this survey round, the average output is 1.5 households per manday including travel time. This amounts to 3 completed interviews every two (2) days.

### Dealing with Enumeration and Related Problems

1. Non-response - One of the problems of any survey undertaking is the failure to get complete information from some respondents. This may be due to the inability of enumerator to find an eligible respondent at home for the interview, refusal of the respondent to be interviewed or insufficient effort and concern by the field enumerators to persuade respondents to be interviewed.

Revisiting the households who were not interviewed is one way of getting less incidence of non-response. As a general rule, the enumerator should make two callbacks or a total of three visits to the household.

If for any reason the respondent refuses to be interviewed, the enumerator should be tactful and patient in persuading the eligible respondents to be interviewed. The assurance that the information provided shall be held confidential and the degree of the respondents understanding of the purpose of the survey may convince the eligible respondent to grant an interview.

In case no member of the household is found at home and the neighbor informs the enumerator that the household would not be expected to be back within the enumeration period, he should make one last visit to the household to confirm the information. In case the household will be back within the enumeration period, make it a point to interview the household.

Starting July 2003 survey round, there will be no more replacement of households. Extra effort should be exerted to minimize non-responses.

## 2. Deferment of Interview

It is possible that even if the respondent is at home, he/she will refuse to be interviewed at that particular moment. In this instance, the enumerator should make an appointment with the respondent at his/her most convenient time. If the postponement of the interview is requested after completing ISH Form 2 and part of FIES Form 1, the enumerator should ask at what time and date when he will return for interview.

Bear in mind that appropriate dealing with field problems lies heavily not only on the enumerators but also on the field supervisors. The supervisors should be responsive to the problems and difficulties presented by the enumerators during the survey period. The SRs must be closely supervised by their supervisors.

## 3. Lack of Forms

Limited number of FIES questionnaires were printed because of the high printing cost. Hence, exact numbers of questionnaires were allocated for each province based on the number of sample households. FIES questionnaires were also provided for use during the second and third level training. Only minimal numbers of reserve questionnaires for enumeration were sent to regional offices. It should be emphasized that proper handling of questionnaires should be observed to avoid their wastage.

## 4. Problem Area

Some barangays may not be penetrated due to peace and order problems, calamities and other valid reasons. Situations such as these should be reported for appropriate action to the PSO and RD the soonest time possible. The field operation may be postponed in case of flood or other calamities.

## 5. Accidents or injuries

Report immediately cases of accidents, injury or disability to the DSO, PSO, RD and CO for appropriate action. Necessary documents like doctor's certificate, report of the accident, hospital bills, medicines receipts, etc., should be attached to the report of the DSO/PSO.

# Questionnaires

The questionnaire collects information on family income, sources of income, family expenditure and related information affecting family income and expenditure levels and patterns in the Philippines.

# Data Collectors

Name	Abbreviation	Affiliation
Provincial regular staff	SCOs	Philippine Statistics Authority
Hired Enumerators	Hired ENs	Philippine Statistics Authority

# Supervision

The Regional Directors (RDs), Provincial Statistical Officers (PSOs), Provincial Statisticians and selected District Statistical Officers (DSOs)/ Statistical Coordination Officers (SCOs) are provided funds for supervision. It is expected that there should always be strict supervision on the conduct of the survey.

All field personnel who will supervise during the operation should prepare an itinerary of travel to insure effective and close supervision of the enumerators. A copy of the itinerary of travel should always be available in the field office so that in case

some problems or other matters require the attention of a supervisor, then he can be located easily. Central Office (CO) personnel will also be assigned in the field during the enumeration and it will be important to contact the field staff to determine the status of the operation.

It is the responsibility of the supervisors to give prompt action to problems in the field. The RDs, PSOs and their assistants should visit enumerators (ENs) within their jurisdiction to find out for themselves if instructions are being followed.

All field personnel who will supervise are required to fill-up ISH Form 1B. Instructions on how to fill-up this form are discussed in page 11.

During supervision, the following should be done:

1. Observe how the interview is being conducted. Errors noted should be pointed out to the ENs to avoid the same mistakes in succeeding interviews.
2. Scrutinize the accomplished questionnaires for correctness, completeness and consistency of entries and return the problem questionnaires to the ENs for verification of the incorrect entries.
3. Conduct a random re-interview of households/respondents to ensure that the ENs really visited and interviewed the sample households and eligible respondents.
4. Help solve problems encountered by enumerators such as refusals, callbacks and others.
5. Ensure that expected outputs of the ENs are met.
6. Ensure that the ENs who were trained were the ones conducting the interview.
7. Collect the questionnaires from the ENs as well as accomplishment reports.
8. Be available if the ENs need assistance in relation to the conduct of the surveys.
9. Fill-up the Supervisor's Report Form (Attachment 4) which shall be submitted to the Regional Office.

# Data Processing

## Data Editing

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The 2012 FIES questionnaire contains about 1915 data items and a summary for comparing income and expenditures. The questionnaires were subjected to a rigorous manual and machine edit checks for completeness, arithmetic accuracy, range validity and internal consistency.

The major steps in the machine processing are as follows:

1. Data Entry
2. Completeness Check
3. Matching of visit records
4. Consistency and Macro Edit (Big Edit)
5. Generation of the Public Use File
6. Tabulation

Steps 1 to 2 were done right after each visit. The remaining steps were carried out only after the second visit had been completed.

Steps 1 to 4 were done at the Regional Office while Steps 5 and 6 were completed in the Central Office.

After completing Steps 1 to 4, data files were transmitted to the Central Office where a summary file was generated. The summary file was used to produce the consistency tables as well as the preliminary and textual tables.

When the generated tables showed inconsistencies, selected data items were subjected to further scrutiny and validation. The cycle of generation of consistency tables and data validation were done until questionable data items were verified.

The FAME (FIES computer-Aided Consistency and Macro Editing), an interactive Windows-based application system was used in data processing. This system was used starting with the 2000 FIES round. The interactive module of FAME enabled the following activities to be done simultaneously.

- a) Matching of visit records
- b) Consistency and macro edit (big edit)
- c) Range check

The improved system minimized processing time as well as minimized, if not eliminated, the need for paper to generate the reject listing.

## Other Processing

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For data entry, CSPro Version 4.1 was used

## Data Appraisal

### **Estimates of Sampling Error**

Sampling errors have been calculated for selected indicators for the national sample, and for each of the 17 regions. For each of the statistics, the estimates, its standard error, the coefficient of variation (or relative error - the ratio between the standard error and the estimate), the design effect (DEFT - the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used), as well as the 95 percent confidence intervals ( $\pm 2$  standard errors).