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Philippine Institute for Development Studies
Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

A Documentation of the Philippines' Family Income and Expenditure Survey

Carmelita Ericta and Emma Fabian

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A Documentation of the Philippines' Family Income and Expenditure Survey¹

Carmelita Ericta and Emma Fabian²

Abstract

The quality of poverty estimates relies heavily on the data sources. One of the sources of data for poverty estimation in the Philippines is the Family Income and Expenditure Survey (FIES). The FIES is the source of detailed information on income and expenditures of Filipino families. Conducted by the National Statistics Office every three year, it is an input to the calculation of critical poverty data necessary to monitor the condition of the poor in the country. In this document, one will be able to look into how the FIES is administered, how it evolved through time, how the concepts of family and income are defined, what the survey covers, how much it costs to conduct the FIES, how detailed the survey questions are, how long it takes to complete the enumeration, and what the issues surrounding it are.

Key words: Family Income and Expenditure Survey (FIES), sampling design, 2003 Master Sample, family income, family expenditure, questionnaire, estimation, enumeration

¹ This paper is part of a bigger report for the UNDP-funded project titled “Comprehensive Documentation and Analysis of the Official Poverty Estimation Methodology of the Philippines” implemented by PIDS in cooperation with the National Economic and Development Authority (NEDA) and the Technical Committee on Poverty Statistics (TCPOVSTAT).

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A Documentation of the Philippines' Family Income and Expenditure Survey

OUTLINE

CHAPTER 1 - INTRODUCTION

- 1.1 Rationale of the project
- 1.2 History and Development including changes in the survey

CHAPTER 2. SCOPE AND COVERAGE

- 2.1. Family Income and Related Items
- 2.2. Family Expenditures and Related Items

CHAPTER 3. SURVEY DESIGN

- 3.1. Sampling Design
- 3.2. FIES questionnaire

CHAPTER 4. Training, Field Operations and Data Processing

- 4.1 Training
- 4.2 Field Enumeration
- 4.3 Data Processing (Manual/Machine Processing)

CHAPTER 5. ESTIMATION PROCEDURE

CHAPTER 6. DATA DISSEMINATION

Mediums of Data Dissemination

(Press Release, Special Release, Bulletin, PUF, Merged files, website posting, Data User's Forum)

CHAPTER 7. OTHER CONCERN

- NCR one visit estimation in 2006 FIES
- Computing the Gini Ratio
- Deflating the FIES Estimates
- Use of Philippine COICOP to classify FIES Items

CHAPTER 8. SUMMARY/RECOMMENDATIONS

A Documentation of the Philippines' Family Income and Expenditure Survey¹

Carmelita Ericeta and Emma Fabian²

CHAPTER 1 - INTRODUCTION

1.1 Rationale

The Family Income & Expenditure Survey (FIES) is the main source of income and expenditure data in the Philippines. It is a nationwide survey of households conducted regularly by the National Statistics Office (NSO). This undertaking aims to accomplish the following objectives:

- a. to gather data on family income and family living expenditure and related information affecting income and expenditure levels and patterns in the Philippines;
- b. to determine the sources of income and income distribution, levels of living and spending patterns, and the degree of inequality among families;
- c. to provide benchmark information to update weights in the estimation of consumer price index (CPI); and
- d. to provide inputs in the estimation of the country's poverty threshold and incidence.

The authority for the survey emanates from Commonwealth Act No. 591, which authorizes the National Statistics Office under Section 2 (d) "to conduct by enumeration, sampling or other methods, for statistical purposes, studies of social and economic problems of the country".

More recently, Executive Order No. 121, otherwise known as the Reorganization Act of the Philippine Statistical System, which was passed on January 30, 1987, declared that the National Statistics Office (NSO) shall be the major statistical agency responsible for generating general purpose statistics and for undertaking such censuses and surveys as may be designated by the National Statistical Coordination Board (NSCB).

Like any other survey undertaken by the NSO, the data gathered in the FIES are for statistical purposes only and are published in summary forms. As provided in the said Act, the data will not be used for taxation, investigation or enforcement purposes.

1.2 History and Development

Since 1957, fourteen (14) FIES had been conducted: 1957, 1961, 1965, 1971, 1975, 1979, 1985, 1988, 1991, 1994, 1997, 2000, 2003 & 2006. These surveys have undergone changes in the use of sampling methods, questionnaires, methods of collection and recall periods. From 1957 to 1975, the FIES was conducted every five years. Starting 1985, a new series of FIES (in terms of content and methodology) was introduced. Further, the new series closed the gap of conducting the survey to three years, from the previous five years.

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² Administrator & Chief, Income and Employment Statistics Division, respectively, National Statistics Office

The early FIES, from 1957 until 1975, used the annual recall method. For the 1979 FIES, the Diary method was adopted. It was the first and only time that the diary method was used with the intent of reducing the errors and biases of respondents. The National Census & Statistics Office and National Tax Research Center (NTRC) undertook the 1979 FIES as a joint activity.

1985 FIES

Starting 1985, the semestral recall method was utilized. The FIES was conducted twice with the first visit enumeration done in July 1985 to get data for the period January to June. The second visit enumeration was conducted in January 1986 to capture data for July to December 1985. The questionnaire was structured such that the interviews in the two visits were recorded in one questionnaire, this is referred to as shuttle type of questionnaire. The data were arranged in columns for each of the two visits.

This scheme was utilized to improve the quality of data gathered since it minimized memory bias of the respondent and at the same time captured the seasonality of income and expenditure patterns. To estimate annual data on income and expenditures, the reports of the first visit survey are combined with the second visit. (To this date, the two semesters recall period is still adopted.)

The sampling design of the 1985 FIES adopted that of the Integrated Survey of Households (ISH) of then National Census & Statistics Office (NCSO, now National Statistics Office, NSO), which used a stratified two-stage cluster sampling design. The urban and rural classification of each province were the principal domains for the survey.

The 1985 survey involved the interview of a national sample of about 17,000 households deemed sufficient to provide reliable estimates of income and expenditure levels for each province of the country, including key cities. The sample households covered in the survey were the same sample households interviewed in the second and fourth quarter rounds of the 1985 ISH.

1988 FIES

Like in 1985, the 1988 FIES adopted the “shuttle type” of data collection wherein the samples were interviewed in two separate operations using the same questionnaire, each time using the half-year period preceding the interview as reference period. For this survey year, a more detailed list of subcategory of items were used to improve data collection.

To further reduce memory bias, the concept of “average week” consumption for all food items was utilized in the 1988 FIES. Moreover, the reference period for Fuel, Light and Water, Transportation and Communication, Household Operations and Personal Care and Effects was limited to the ‘past month” and in some specified cases, the concept of “average month” consumption was used. For all other expenditure groups, the “past six months” was used as reference period.

The 1988 FIES contained additional section on farm land utilization, specifically for the use of the Bureau of Agricultural Statistics. This section asked if at least one family

member is engaged as operator in Crop Farming and Gardening, determines how the family allocates, with regard to land usage, its agricultural land holding .

The sampling design of the 1988 FIES adopted that of the ISH which is the same as those used in 1985 FIES. The survey involved the interview of a national sample of about 20,000 households deemed sufficient to provide reliable estimates of income and expenditure levels for each province of the country, including key cities. The sample households covered in the survey are the same sample households interviewed in the July 1988 and January 1989 rounds of the Labor Force Survey (LFS).

It should be noted that the 1988 FIES results did not contain estimates for Rizal province. A fire razed the statistics office of Rizal and no questionnaire was spared. The statistical tables as published in the FIES Bulletin contain a footnote indicating that there is no available data for the province of Rizal because of the fire that destroyed the provincial office.

1991 FIES

The 1991 FIES also adopted the “shuttle type” of data collection with the same reference period. As for the questionnaire, a summary of income & expenditure was integrated in the last page to facilitate comparison.

The sampling design for 1991 FIES was basically the same as those used in 1985 and 1988 FIES although there was a deviation in the principal domain of the survey to consider the grouping for the newly created region, Autonomous Region of Muslim Mindanao (ARMM). Marawi City and Cotabato City were treated as domains.

The first phase of survey operation was conducted in July 1991 and data gathered were for the period January 1 to June 30, 1991, except for the province of Zambales. Due to Mt. Pinatubo’s eruption, the first phase of survey operation in Zambales was conducted in October 1991. The second operation for all area was conducted in January 1992 and gathered information for the period July 1 to December 31, 1991.

The survey covered a national sample of about 25,516 households deemed sufficient to provide reliable estimates of income and expenditure levels for each province, key cities and key municipalities of the country. This increase (from the 1988 sample size of 19,897 households) was a result of the increase in the total number of households based on the 1990 Census of Population and Housing (CPH).

The sample households covered in the survey were the same sample households interviewed in July 1991 and January 1992 rounds of LFS.

1994 FIES

The shuttle type of survey instrument used for the interview was still maintained in 1994 FIES. There was modification in the questionnaire with data item on health care included for use of the Health Policy and Development Program, a joint project of the UP School of Economics and the Department of Health. As indicated in the new items, detailed information on medical expenditure and information on health insurance coverage of household members were emphasized in the 1994 FIES questionnaire.

Taking off from the sampling design of the 1991 FIES, the survey covered a national sample of about 25,516 households deemed sufficient to provide reliable estimates of income and expenditure levels for each province, key cities and key municipalities of the country. The sample households covered in the survey were the same sample households interviewed in July 1994 and January 1995 rounds of LFS.

1997 FIES

There was no significant change in the questionnaire used for the 1997 FIES. Furthermore, the shuttle type of questionnaire was continued to be used for interview.

In 1997, the change was focused on the sampling design. With the ISH now anchored on a new master sample starting July 1996, the FIES now adopted the new master sample design. The 1996 design, constructed from the listings of the 1995 Census of Population, used a multi-stage sampling design with the selection of sample barangay for the first stage, enumeration area (EA) for the second stage and households for the third stage.

The 1997 FIES involved the interview of a national sample of about 41,000 sample households deemed sufficient to provide reliable estimates of income and expenditure levels for each province of the country, key cities and key municipalities. The sample households covered in the survey were the same households interviewed in the July 1997 and January 1998 rounds of LFS.

2000 FIES

New items that were considered essential commodities were incorporated in the questionnaire to update the exhaustive list of items on family expenditures. In particular, the 2000 FIES contained new items commonly consumed by families, among others such as bottled water, phone cards & internet subscription. The 2000 FIES further used the revised 1992 Philippine Standard Occupational Classification (PSOC) and 1994 Philippine Standard Industrial Classification (PSIC) to categorize the occupations and industries of the family head. This was an update from the previously used 1975 PSOC and 1977 PSIC used in previous FIES round.

The 2000 FIES used the same sampling design as in 1997 and likewise involved the interview of a national sample of about 41,000 sample households deemed sufficient to provide reliable estimates of income and expenditure levels for each province of the country, key cities and key municipalities. The sample households covered in the survey were the same households interviewed in the July 2000 and January 2001 rounds of LFS.

2003 FIES

Starting 2003 FIES, two separate sets of questionnaires containing same data items were used for each visit. This design permits to obtain the family transactions for one semester in every visit, using one set of questionnaire for each visit. This move was made to minimize, if not avoid the tendency of enumerators of using the first visit results as basis to compare the responses of second visit.

Further, new data items were introduced in 2003 FIES such as microcomputers and cellphones, among others.

The 2003 FIES also had its modification in the use of master sample for households surveys. This time, a new master sample (the 2003 MS) which used extensively the results of the 2000 Census of Population & Housing was developed for the household surveys. Using a stratified three-stage design, the 2003 MS has for its PSU the barangays or group of barangays, the EAs for the second stage, and the housing unit for the third stage. The regions were used as the domain.

Changes in the regional grouping was likewise taken in consideration in the design of the 2003 master sample. Hence, FIES results were released based on a different regional grouping from that of 2000 FIES. To note:

- MIMAROPA and Calabarzon were reported as two separate regions
- The province of Lanao del Norte and Iligan City, which were formerly under Region XII, were under Region X.
- The province of South Cotabato and the new province of Sarangani, General Santos City and Koronadal City, which were formerly under Region XI, were transferred under Region XII.
- Marawi City, which was formerly under Region XII, was placed under the administrative supervision of Autonomous Region in Muslim Mindanao (ARMM)³.

The 2003 FIES involved the interview of about 51,000 sample households deemed sufficient to provide reliable estimates of income and expenditure levels for regions. The sample households covered in the survey were the same households interviewed in the July 2003 and January 2004 LFS rounds.

2006 FIES

The 2006 FIES is basically the same as the 2003 FIES in terms of approach in the interview, thus using separate questionnaire for each visit with the same set of questions. Data items specifically, school service (both land and water) and food supplements were added in the questionnaire.

The 2003 sampling design was used covering 51,000 sample households deemed sufficient to provide reliable estimates of income and expenditure levels for regions. The sample households covered in the survey were the same households interviewed in the July 2006 and January 2007 LFS rounds.

Funding the FIES:

The FIES earlier years depended largely on foreign funding with financial grant from the USAID in the amount of \$490 thousand for the conduct of the 1985 FIES. About 56% of

³ (Note: Executive Order (EO) No. 36 provided for the reorganization of the Administrative Regions in Mindanao. Basilan, which was under ARMM remained as part of Region IX until the upcoming revision of master sample, where Basilan is transferred to ARMM except Isabela City which was be retained in Region IX.)

the said budget (\$276 thousand) was in the form of technical assistance from the US Bureau of Census.

The FIES is the most expensive survey being undertaken by NSO, with the later FIES funded from government budget. There were years when FIES was almost not conducted because of funding constraint. In 1994, the Senate during the budgetary process, scrapped the FIES budget. The FIES importance in monitoring the progress of poverty alleviation program and projects, however took precedence, the President of the Philippines (President Fidel Ramos) provided the funds from the budget of the Office of the President.

In 1997 FIES, the same predicament was also experienced for the second visit FIES. With no assurance for funding, the enumeration of the 1997 FIES second visit which was scheduled in January 1998 was temporarily put on hold. Enumeration started in March 1998, only after the go signal was given to pursue the survey.

The 2000, 2003 and 2006 were consistently provided adequate funding by the government. To note, the 2006 FIES was allocated with about P100 million budget from the Philippine General Appropriations Act (GAA). Maintenance & other operating expenses (MOOE) for each visit ranged from P50 to P52 million (P50.3 million and 51.8 for 2006 & 2007 GAA, respectively). The said amount only covered cost for hiring additional personnel for enumeration & data processing, traveling expenses & per diems for training & enumeration, and related cost for field operation activities. The GAA provided a separate budget for personnel services of regular NSO personnel & related capital outlay.

CHAPTER 2. SCOPE AND COVERAGE

The FIES questionnaire contained exhaustive list of items of income & expenditure. The following items are necessary to understand the concepts of income and expenditure. The discussion in this chapter were basically lifted from the FIES Enumerator's Manual which contained detailed instructions for valuing specific items included in family income and expenditure.

2.1. Family Income and Related terms

Total family income includes primary income and receipts from other sources received by all family members during the reference period as participants in any economic activity or as recipients of transfers, pensions & grants, among others.

Primary income includes salaries and wages, commissions, tips, bonuses, family and clothing allowance, transportation and representation allowances, honoraria, and other forms of compensation and net receipts/profits derived from the operation of family-operated enterprises/activities and the practice of profession or trade.

Following the International Labor Organization concept of income, the FIES series from 1985 onwards excluded profits from the sale of stocks and bonds, back pay and proceeds from insurance, net winnings from gambling, sweepstakes and lotteries and inheritance as part of family income. However, these are collected as part of "Other Receipts" which are not included as income.

Salaries and wages from employment includes all forms of compensation whether in cash or in kind received by family members who are regular or occasional/seasonal workers in agricultural and non-agricultural industries.

Receipts from other sources include imputed rental values of owner-occupied dwelling units, interest, rentals, including landowners share of agricultural products, pensions, support and the value of food and non-food items received as gifts by the family as well as the imputed value of services rendered free of charge to the family. Also included as part of the family income are receipts from family sustenance activities which are not considered as family-operated enterprise.

Imputed rent is the estimated amount that the owner of a dwelling unit would charge if he/she were to rent his/her entire dwelling unit monthly, unfurnished and excluding the costs of utilities. The rental value is based on the prevailing rate in the locality.

Net share of crops, fruits and vegetables produced or livestock and poultry raised by other households refers to the share of harvested crops, fruits, vegetables, etc. of family from a tenant or from a fixed rental or any amount out of the produce during the reference period. It also includes the share of family from the proceeds of the sale of pig, cow, etc., which is owned but raised by others and disposed of during the reference period although there was no land-lord-tenant relationship between the sample family and the one who raised it.

Received as gifts include all food and non-food items received in kind by the family during the reference period. For food items, alcoholic beverages and tobacco received as a form of support, assistance or reliefs are likewise considered as gifts. However, food items, alcoholic beverages and tobacco taken by a family member at parties attended, food items offered to him/her by friends are not included. Food and non-food items received as gifts include those received from other households, charitable institutions, and the government or from persons abroad, free of charge.

Entrepreneurial activity or family-operated activity is any economic activity, business or enterprise whether agricultural or non-agricultural enterprises, engaged in by any member of the family as an operator or as self-employed. Included are those which are single proprietorship or loose partnership without formal organization). Thus partnerships, corporations, associations, etc., which are formally organized are excluded.

Family sustenance activity is also a family activity but unlike an entrepreneurial activity, the produce from the former is mainly for home consumption. Occasionally, sales are made when harvests/produce are more than enough for family consumption.

Other receipts are non-income receipts comprising of value at cost of real and personal property sold, loans from other households, business firms and government institutions, payments received from others for loans granted, and withdrawals from savings or business equity. Profits from sales of stocks and bonds, back pay and proceeds from insurance, net winnings from gambling, sweepstakes and lotteries and inheritance are also included as non-income receipts.

2.2. Family Expenditures and Related Terms

Family expenditures refer to the expenses or disbursements made by the family purely for personal consumption during the reference year. These include all expenses in relation to farm or business operations, investments ventures, purchase of real property and other disbursements which do not involve personal consumption.

Gifts, support, assistance or relief goods and services received by the family from friends, relatives, etc., are also considered expenditures of the family.

Value consumed from net share of crops, etc., from family sustenance activities and from entrepreneurial activities were also included as part of family expenditures.

Food includes the food consumed at home and regularly consumed outside the home by the family members.

Food Consumed at Home: This includes the following expenditure subgroups:

- 1.) Cereal and Cereal preparation
- 2.) Roots and tubers
- 3.) Fruits and vegetables
- 4.) Meat and meat preparation
- 5.) Dairy products and eggs
- 6.) Fish and other marine products

- 7.) Coffee, cocoa and tea
- 8.) Non-alcoholic beverages
- 9.) Food not elsewhere classified

The items above cover the actual consumption (not expenditure) of the family during the reference period. This category includes food prepared at home and those home-cooked food bought outside the home and eaten elsewhere like in the place of work, school, etc.

Food consumption covers only the actual consumption of the family, its cosmetic helpers as well as persons employed by the family to do odd jobs around the house, and family guests who visited during the reference period.

Food regularly consumed outside the home: This includes food regularly bought and eaten by the family members outside the home like snacks, merienda, lunch, etc. The daily allowances of school children for their meals, sandwiches, softdrinks, etc. are also covered under this category.

Fuel, light and water: This refers to the total family consumption of fuel, light and water consumed during the reference period.

Non-durable furnishings: This includes the value of all non-durable furnishings such as utensils and accessories (dinnerware, silverware, kitchen utensils, etc.) for family use acquired within the reference period including those bought/received by the family for use during special occasions. Homemade non-durables are included as expenditures, the cost of which is the cost of materials and the cost of labor.

Durable furniture and equipment: This includes all durable furnishings or equipment such as pieces of furniture, garden tools, appliances, cars, etc. acquired on a cash basis during the reference period and intended for family use during the ordinary days or during special occasions.

Those durable furniture and equipment purchased on installment basis during the reference period are also included. The reported total value is the total installments paid plus initial down payment made on the item during the reference period.

Durable furniture made at home for family use are also reported in this part, hence, the value included is the value of the materials used and the cost of labor paid. Value of labor rendered by any member of the household free of charge is not included.

Taxes: The following forms of taxes were included in the survey:

1. Income tax – refers to the tax levied on the income of a working person in pursuit of his/her occupation.
2. Real estate tax – refers to the tax imposed on real property of the family, e.g. house and lot for family use, in proportion to its value. This includes real estate tax levied on real property of the family used for personal purposes. Taxes paid for properties used solely for business are excluded.

3. Car registration, toll fees and driver's license – includes registration fees for motor vehicles used for private transport of the family, toll fees, etc.
4. Other direct taxes – these are taxes which are demanded from a taxpayer, who shoulders the burden of the tax; or tax which the taxpayer cannot shift to another. Examples are inheritance tax, alien certificate of registration (ACR), donor's tax, customs duties paid for personal effects bought from abroad, amusement tax and taxes paid as a customer.

Other disbursements: This refers to non-family expenditures which may give an indication of savings on the part of the family. These include purchase or amortization of real property, payments of cash loan (principal), installments of appliances bought before reference period, loans granted to persons outside the household, amount deposited in banks or investments and major repair or construction of a house.

2.3. Specific Items considered as both Income & Expenditure

Certain items of expenditures are considered as income or vice versa in order to balance both sides of the family account and in order that the cash position of the family is not disturbed. These expenditure items are those goods and services which are received as gifts, assistance, allowances from other household or institutions and those own-produced goods and services which were consumed by the family during the reference period. These include among others the following:

- a. Imputed rental value of owned-occupied dwelling unit - This item should be in the expenditure side of the family account and at the same time must be in the income side so that the cash position of the family is not affected. The level of expenditure and income, will increase by the inclusion of this item on both sides of the account.
- b. Own-produced goods and services - These items are reported on both sides of the family account.
- c. Goods and services received by the family, which are consumed or used - These items are also treated as expenditure and as income at the same time. For example, if during the reference period, a family received a gift, say a television set from a friend belonging to another household or from a relative abroad, the value of the TV set must be reported as durable furniture and equipment, and at the same time it will be included in the income side during machine processing.

2.4. CHAPTER 3. SURVEY DESIGN

3.1 Sampling Design

The FIES, as a household sample survey is anchored in the NSO sampling design for household surveys. The FIES have been conducted as rider survey of the LFS.

The sampling design of the FIES for years 1985, 1988, 1991 and 1994 adopted that of the Integrated Survey of Households (ISH) of then National Census & Statistics Office (NCSO, now National Statistics Office, NSO). It used a stratified two-stage cluster sampling design with the urban and rural classification of each province as principal domains for the survey. A national sample of about 20,000 households was used, deemed sufficient to provide reliable estimates of income and expenditure levels for each province of the country, including key cities. For the 1991 & 1994 FIES, there was a deviation in the principal domain of the survey to consider the grouping for the newly created region, Autonomous Region of Muslim Mindanao (ARMM). Marawi City and Cotabato City were treated as domains.

With the ISH anchored on a new master sample starting July 1996, the FIES for 1997 and 2000 likewise have to adopt the new master sample design. The 1996 design, constructed from the listings of the 1995 Census of Population, used a multi-stage sampling design with the selection of sample barangay for the first stage, enumeration area (EA) for the second stage and households for the third stage. The FIES involved the interview of a national sample of about 41,000 sample households deemed sufficient to provide reliable estimates of income and expenditure levels for each province of the country, key cities and key municipalities.

The FIES used the sampling design of the 2003 Master Sample (MS) for household surveys starting July 2003. The following are detailed discussion of the 2003 MS which were lifted from the 2003 FIES Bulletin.

Domain

The 2003 MS considered the country's 17 administrative regions as defined in Executive Orders (EO) 36 and 131 as its sampling domain. A domain is referred to as subgroups of the population in which estimates with adequate level of precision is generated. It must be noted that while there is demand for data at the provincial level (and to some extent municipal and barangay levels), these were not treated as domain because of its large number (more than 80) and the large resource requirement that goes along with it. 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

Sampling Frame

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.

Stratification Scheme

Stratification involves the division of the entire population into non-overlapping subgroups called strata. Prior to sample selection, the PSUs in each domain were stratified as follows:

- a. All large PSUs were treated as separate strata and were referred to as certainty selections (Self-representing PSUs). A PSU was considered large if it has a large probability of selection.
- b. All other PSUs were then stratified by province, highly urbanized city (HUC) and independent component city (ICC).
- c. Within each province/HUC/ICC, the PSUs were further stratified or grouped with respect to some socio-economic variables that were related to poverty incidence. These variables were: (a) the proportion of strongly built houses (PSTRONG); (b) an indication of the proportion of households engaged in agriculture (AGRI); and (c) the per-capita income (PERCAPITA).

PSTRONG is defined to be the percentage of occupied housing units that are classified as made of strong materials for both the roof and outer walls, based on the data from the 2000 CPH. A roof is considered made of strong materials if it is made of either galvanized iron, Aluminum, concrete/clay tile, half galvanized-half concrete, or asbestos. The outer wall is considered made of strong materials if it is made of concrete, brick, stone, wood, half concrete-half wood, galvanized iron, asbestos or glass.

AGRI was determined in the following way: initially, an indicator variable was computed at the barangay level. That variable has the value 1 if more than 50 percent of the households in the barangay were engaged in agriculture or fisheries and 0 otherwise, based on the 2000 CPH Barangay Schedule. To obtain a measure at the PSU level, a weighted average of the barangay indicator variable was computed for all the barangays within the

PSU, weighted by the total number of households in the barangay. Thus, the value of AGRI at the PSU level lies between 0 and 1.

PERCAPITA is defined as the total income of the municipality divided by the total population in that municipality. Note that the PERCAPITA value of the PSUs is the same if the PSUs belong to the same municipality. The data on municipal income refer to year 2000 and were taken from the Department of Finance. However, if the 2000 municipal income was not reported to the Bureau of Local Government Finance (BLGF), 2001 income was used. If no 2000 or 2001 municipal income was reported, the income classification from the BLGF for this municipality was obtained. Using the data on municipal income, which are presented in income intervals, the average of the lower and the upper values of the income interval for the municipal class to which this municipality belongs were determined.

Sample Selection

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 one 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.

Sample Size

The 2003 FIES involved the interview of a national sample of about 51,000 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 2006 and January 2007 round of the LFS.

Same Household Samples in Different FIES Years

The master sample provided a scheme where same sample households used in previous FIES years are rotated back for the conduct in the next years of FIES. Several sample households are even retained for the succeeding rounds of the Annual Poverty Indicator Survey (APIS). This enabled studying the characteristics of the same sample households over time as well as capturing possible changes in the family composition.

One-half of the total sample households for the 1997 FIES (about 10 thousand households) were retained until the 1999 APIS. Meanwhile, for the FIES series 2003 and 2006 which used the 2003 master sample design, a sub-group was also retained. The same sample households numbering about 12,500 were enumerated both in 2003 and 2006 FIES. The same sample households were also enumerated in the July 2004 APIS.

3.2 FIES questionnaire

The structured questionnaire of the FIES has been used since 1985. This included detailed lists of items of expenditure, income and entrepreneurial activities which were asked from sample households. The items contained in the questionnaires are deemed sufficient to adequately generate vital data required for analysis of the income & expenditure patterns of Filipino families.

Over the years, the FIES questionnaire has undergone several modifications. There were years when specific items have to be added to update the items in the list mostly consumed by the families.

The 2006 FIES adopted a questionnaire design wherein separate questionnaire with the same sets of questions for both visits are used. The sample household is interviewed in two separate operations each time using the half-year period preceding the interview as reference period. This scheme envisioned to improve the quality of data gathered since it minimizes memory bias of respondents and at the same time captures the seasonality of income and expenditure patterns.

The use of separate questionnaire with the same set of questions for both visits was used starting 2003 FIES. In previous FIES, the same set of questions for each semester (two enumeration periods) were contained in one questionnaire.

The 70-page questionnaire for the 2006 FIES has four main parts consisting of the following:

Part I. Identification and Other Information (page 1-3)

(Geographic Identification, Other Information and Particulars about the Family)

Part II. Expenditures (page 4-45)

Section A. Food, Alcoholic Beverages and Tobacco

Section B. Fuel, Light and Water, Transportation and Communication, Household Operations

Section C. Personal Care and Effects, Clothing Footwear and Other Wear

Section D. Education, Recreation, and Medical Care

Section E. Furnishings and Equipment

Section F. Taxes

Section G. Housing, House Maintenance and Minor Repairs

Section H. Miscellaneous Expenditures

Section I. Other Disbursements

Part III. Income (page 46-55)

Section A. Salaries and Wages from Employment

Section B. Net Share of Crops, Fruits and Vegetables Produced and/or Livestock and Poultry Raised by Other Households

Section C. Other Sources of Income

Section D. Other Receipts

Section F. Family Sustenance Activities

Part IV. Entrepreneurial Activities (page 56-69)

Section A1. Crop Farming and Gardening

Section A2. Livestock and Poultry

Section A3. Fishing

Section A4. Forestry and hunting

Section A5. Wholesale and Retail

Section A6. Manufacturing

Section A7. Community, Social, Recreational and Personal Services

Section A8. Transportation, Storage and Communication Services

Section A9. Mining and Quarrying

Section A10. Construction

Section A11. Entrepreneurial Activities Not Elsewhere Classified

Page 70 contains A guide for comparing disbursements against receipts is found on.

The income & expenditure items were basically listed in details with corresponding blocks and/or lines in the opposite side to write in the amount. The items written in broad categories and sub-categories serve as aid in recall which is necessary because of the lengthy questionnaire format. Special instructions to enumerators in specific locations in the questionnaire were also included as reminder.

The questions were simply worded prompting the enumerators the reference period to be used. The concept of “average week” consumption for all food items was utilized in the

FIES in order to further reduce memory bias. Moreover, the reference period for Fuel, Light and Water, Transportation and Communication, Household Operations and Personal Care and Effects are not limited only to the “past month” but in some specified cases the concept of “average month” consumption is used. For all other expenditure groups, the “past six months” is used as reference period.

The general design of the questionnaire also includes codes inside the box usually located at the top of the framed questions. These codes are for automatic data processing purposes. The paging of the questionnaire is located outside the frame on each page.

CHAPTER 4. TRAINING, FIELD OPERATIONS AND DATA PROCESSING

4.1 Training

Careful & thorough training provide both the enumerators and supervisors sufficient knowledge and confidence to prepare them in the conduct of the FIES. As in other NSO surveys, the FIES training is conducted in three levels, each conducted for five days.

The task force training was attended by Central Office statisticians and selected field personnel. Those who attended the task force training lectured on the second level training. For the second level training which was held at the NSO Regional Offices, the participants were the regional directors, the regional statisticians, the provincial statistics officers & the provincial statisticians. They in turn served as trainers for the third level training.

What was learned in the second level training were cascaded down to the third level training, this time held at the NSO Provincial Offices. The participants at the third level training were the NSO District Statistical Officers, the Statistical Coordination Officers, and the hired Statistical Researchers.

For the 2006 FIES, the five day schedule of the training covered the training for the concepts of the LFS, the master sample and the FIES. Below was the schedule:

Training Level	First Visit	Second Visit
Task Force Training	June 19-23, 2006	Nov 20-24, 2006
Second Level	June 26-30, 2006	Dec 11-15, 2006
Third Level	July 3-7, 2006	Jan 2-6, 2007

During these trainings, the FIES Enumerator's (EN) manual was used as guide. This EN manual contains detailed instructions for filling-up the questionnaires and provides definitions on the terms used. Various examples in filling up the questionnaire and strategies to get accurate response during interviews are also included in the manual to guide the enumerators during their field work. It is necessary that during the trainings, the concepts are thoroughly discussed, and issues raised have to be noted and answered.

The Field Operations Manual (FOM) was also discussed during the training. The FOM contains specific instructions to field supervisors on how to handle the field operation. This include instructions on recruitment of SRs, conduct of training, dealing with enumeration and related problems, instructions on data processing, instructions on accomplishing administrative report forms, and the workload & budgetary allocations.

The training schedule also included a mock interview and field practice particularly during the provincial level training as an exercise in filling-up questionnaires and handling interview situations. The mock interview was conducted to familiarize the participants with the concepts and procedures of the survey. During the field practice, the enumerators were exposed to interviewing actual households respondents. Here, they were trained the techniques of introducing themselves and conducting the interview properly. After the practice, their experiences were discussed so that problems and errors are resolved and corresponding solutions are recommended.

4.2 Field Enumeration

With the complex questionnaire design of the FIES, personal interview was deemed most appropriate to gather the details required for the income & expenditure items. The enumeration period for all FIES Visit 1 started July 8 and ended July 31 of the same year while the second visit started January 8 and ended January 31 of the next year.

For each visit of the 2006 FIES, there were about 600 NSO regular SCOs who served as interviewers during the field operations. Added to this number were 1,400 Statistical Researchers who were also hired to complement the workforce of the regular personnel. Supervision and monitoring of survey operations were done by the RDs, PSOs and Central Office Personnel.

An enumerator is assigned on the average a workload of 1.5 households per day. The enumeration process starts with the interview of the LFS questionnaire followed by FIES questionnaire.

4.3 Data Processing

The 2006 FIES questionnaire contains about 800 data items and a summary for comparing income and expenditures. The neat blocking of the questionnaires proved helpful in the processing. The questionnaires were subjected to a rigorous manual and machine edit checks for completeness, arithmetic accuracy, range validity and internal consistency.

Manual Processing

The instructions for manual processing of the FIES were contained in the FIES Processing Manual. Exhaustive examples were presented in the manual to guide the processors. Even portions of a filled-up questionnaires were included in the manual as form of visual aid. Common problems encountered during manual processing were likewise included in the manual. The processing manual was prepared as guide for editors and processors in checking for the completeness and consistency of entries, and the reasonableness of data entered by enumerators into FIES Form 1.

During the manual processing, imputations (in cases where entries are required but were left blank in the questionnaire) were made based on reports of related items within the same questionnaire

Manual processing of the questionnaire were done in the provincial offices right after the submission of the questionnaires from the field.

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.

CHAPTER 5. ESTIMATION PROCEDURE

Starting 2003, the FIES used the 2003 master sample design for household surveys. The following discussion on the estimation procedure was sourced from the 2003 FIES Bulletin.

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.

1. Base Weights

In general, the base weight assigned to a sampled unit is the inverse of its selection probability. In particular, the base weight is computed as the inverse of equations 1 Non Self Representing (NSR) and 2 Self Representing (SR) below:

$$P(h\alpha\beta\gamma) = \frac{a_{h\alpha} M_{h\alpha}}{\sum_{h\alpha} M_{h\alpha}} \cdot \frac{M_{h\alpha\beta}}{M_{h\alpha}} \cdot \frac{C_{h\alpha}}{M_{h\alpha\beta}} \cdot \frac{k_{h\alpha\beta\gamma}}{K_{h\alpha\beta\gamma}} = f_d = \frac{n_d}{N_d} \quad (1)$$

$$P(h\alpha\beta\gamma) = \frac{b_{h\alpha} M_{h\alpha\beta}}{M_{h\alpha}} \cdot \frac{C_{h\alpha}}{M_{h\alpha\beta}} \cdot \frac{k_{h\alpha\beta\gamma}}{K_{h\alpha\beta\gamma}} = f_d = \frac{n_d}{N_d} \quad (2)$$

where:

h	stratum index
α	index denoting the PSU
β	index denoting the EA
γ	index denoting the household (HH)
d	index denoting the domain/region
n_d	total sample size allocated to region d
N_d	total number of households in region d
$f_d = n_d / N_d$	overall sampling fraction for region d
$M_{h\alpha}$	total number of HHs for the α th PSU in stratum h
$M_{h\alpha\beta}$	total number of HHs in the β th EA from the α th PSU in stratum h
$a_{h\alpha}$	total number of sample PSUs from stratum h , $a = 1$ for NSR PSU
$C_{h\alpha}$	total number of sample housing units for each sampled EA
$k_{h\alpha\beta\gamma}$	number of sampled households per housing unit with three as the maximum
$K_{h\alpha\beta\gamma}$	total number of households residing in a housing unit
$b_{h\alpha}$	total number of EAs selected from α th PSU, $b = 1$ for SR PSUs

That is, the base weight for NSR and SR samples are equal to equations 3 and 4, respectively:

$$w_1 = \frac{\sum_{h\alpha} M_{h\alpha}}{a_{h\alpha} M_{h\alpha}} \cdot \frac{M_{h\alpha}}{M_{h\alpha\beta}} \cdot \frac{M_{h\alpha\beta}}{C_{h\alpha}} \cdot \frac{K_{h\alpha\beta\gamma}}{k_{h\alpha\beta\gamma}} = \frac{N_d}{n_d} \quad (3)$$

$$w_1 = \frac{M_{h\alpha}}{b_{h\alpha} M_{h\alpha\beta}} \cdot \frac{M_{h\alpha\beta}}{C_{h\alpha}} \cdot \frac{K_{h\alpha\beta\gamma}}{k_{h\alpha\beta\gamma}} = \frac{N_d}{n_d} \quad (4)$$

Note that the last term will equal to 1.0 in cases when all households in the sampled housing unit are enumerated. That is, when households per housing unit do not exceed three.

2. Non-response Adjustments

All surveys experience some degree of unit or total non-response in which a sampled and eligible unit fails to participate in the survey (for example, the unit may refuse to participate, or may never be at home at the times the interviewer calls). Adjustments are made to the base weights to compensate for non-response by sampled units eligible for the survey. In essence, the adjustment inflates the base weights of “similar” responding units to compensate for each non-responding unit.

The most common form of non-response weighting adjustment is a weighting class adjustment and that is the type of adjustment being used for surveys based on the 2003 MS. The full sample of responding households and non-responding households is divided into a number of weighting classes or cells and non-response adjustment factors are computed for each cell c as

$$w'_c = \frac{\sum_{i \in rc} w_{di} + \sum_{j \in mc} w_{dj}}{\sum_{i \in rc} w_{di}} = \frac{\sum_{i \in sc} w_{di}}{\sum_{i \in rc} w_{di}} \quad (5)$$

The denominator of w'_c is the sum of the weights of responding households (indexed r) in cell c . The numerator adds together the sum of the weights for responding households and the sum of the weights for eligible non-responding households (indexed m for missing) in cell c . Together these two sums in the numerator give the sum of the weights for the total eligible sample (indexed s) in cell c . Thus, the non-response weight adjustment w'_c is the inverse of the weighted response rate in cell c . Note that the adjustment is applied with eligible units. Ineligible sampled units (e.g., vacant or demolished housing units and units whether are out of scope for a given survey) are excluded.

3. Population Weighting Adjustments

The basic weight for the sample households for the 2003 FIES can be expressed as an inverse of the selection probability described in equations 1 and 2. Hence, the base

weight for a sampled household in domain d in a housing unit in which all households are included is

$$w_d = \frac{1}{f_d} \quad (6)$$

The basic weight was adjusted to take into account household non-interviews, followed by an adjustment based on the household projections for the domain.

Generally, weighted sample distributions do not conform to known population distributions (e.g. projected population (person) counts or projected household counts). In particular, sample estimates of population (person) counts or household counts generally fall short of true population (person) or household counts because of non-coverage resulting from omission of units and from non-responses such as refusal, non-reachable areas (critical areas) and others.

Hence, further weighting adjustments, termed as population weighting adjustment, may be made to make the survey estimates based on the adjusted weight estimates consistent with known population distributions.

For adjusting household level estimates, the reference count of households is obtained by dividing the total projected population by the average household size. This is resorted to in the absence of projected number of households.

4. Final Survey Weight

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).

For FIES, a ratio of 1:1 is observed or one family to one household. Consider first the estimation of total households. Let y_i and w_i denote the value of variable y and the final weight for household i . The notation can be applied to persons or households or any other unit of analysis. The final weight w_i can be viewed as the number of households that household i represents; thus $\sum w_i$ estimates the total number of households in the country, N . The survey estimate of the households total for variable y , denoted by Y , is then simply

$$\hat{Y} = \sum w_i y_i$$

CHAPTER 6. DATA DISSEMINATION

One important aspect of any survey is the data dissemination which basically aims to spread the results of the survey to a wide variety of data users.

The following mediums of data dissemination are currently in place at NSO:

- Press Release
- Special Release
- FIES Bulletin
- FIES Public Use File
- Website posting (www.census.gov.ph)
- Data User's Forum

The FIES Press release is done right after a preliminary result of the FIES is made available. This is limited to priority indicators such as total family income and expenditure, average family income & expenditure with corresponding total & average saving, the gini ratio and the percentage distribution of expenditure pattern.

The Special Release is done for selected topics of interest from FIES. Final results of the FIES are also disseminated through the Special Release. This contained more detailed analysis including graphs and selected statistical tables. The FIES Press Release and Special Releases are also posted in the NSO website.

The FIES Bulletin contains variety of statistical tables generated from FIES. This also provide comparative analysis of results from previous FIES years. The report likewise present an explanatory text containing definitions and explanations about FIES. It describes the survey objectives, scope & coverage, survey design, description of field operation & data processing and a discussion of the highlights of results. (See Annex A for the list of FIES Bulletin)

Another medium of data dissemination is the Data User's Forum. This is organized to provide venue for users of FIES data to collectively assess the contents of FIES questionnaire. During the fora, discussions revolve around suggestions from participants on additional items to be included in the questionnaire, as well as other input for the improvement of FIES data collection. A User's Forum is also conducted to present FIES results.

Before the conduct of the 2006 FIES in July 2006, a User's Forum was held on March 28, 2006 at Sulo Hotel in Quezon City. This was attended by data users and other representatives from various government agencies, private institutions and the academe. In another User's Forum, the major results of the 2006 FIES was presented on January 30, 2008 at the NSO Training Room in Sta. Mesa, Manila. The forum also included discussion on the policy implications of the FIES, as well as a demonstration on the use of the 2006 FIES Public Use File (PUF).

Another output of FIES is the PUF which contain detailed disaggregation of FIES data at the household level with corresponding items of income & expenditure. The FIES PUF are stored in compact disk(s) which can be accessed using standard CD-ROM readers. The FIES PUF comes with Census and Survey Processing System (CSPRO), a software package for entering, editing, tabulating, and disseminating data from censuses and surveys. Using the FIES PUF, statistical tables of interest can be generated and which can be disaggregated by region and by major type of income & expenditure as well as by income decile.

CHAPTER 7. ISSUES & OTHER CONCERNS

NCR one visit estimation in 2006 FIES

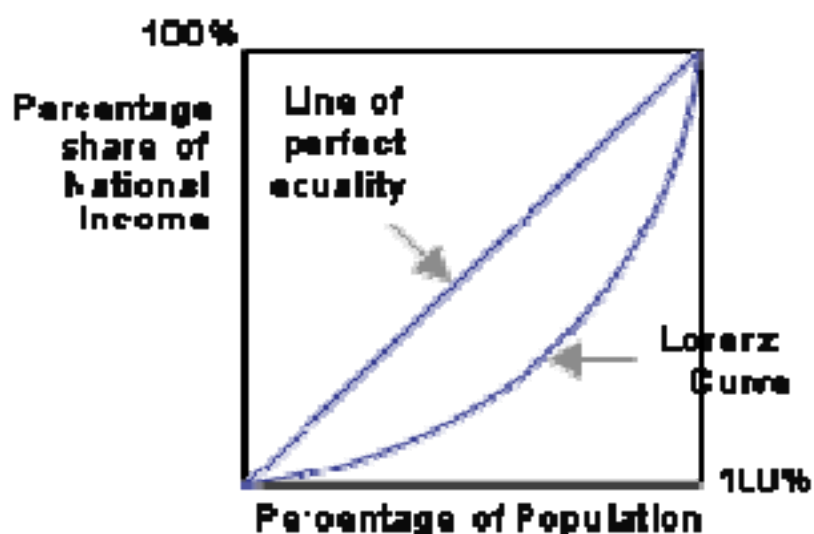
The estimates from the 2006 FIES include results of the first FIES visit for the NCR based on questionnaires recovered from fire. The fire that hit the NCR's Statistics Office on October 3, 2006 damaged 58 percent of the total questionnaires for the FIES first visit. Questionnaires that were encoded and processed cover around 42 percent of these questionnaires.

In the preliminary results, values for the burned questionnaires were imputed using a ratio which requires data from the recovered questionnaires and data from corresponding questionnaires from the second visit. The ratio was computed by getting the sums of the total income and total expenditure in the recovered questionnaires from the first visit and the sums of the same data from corresponding second visit questionnaires and then by dividing the sums from the second visit by the sums from the first visit. The annual estimates on income and expenditure for NCR were computed by dividing the second visit values by the computed ratio.

For the final results, the annual estimates for the NCR were computed by multiplying by 2 the second visit data. This imputation procedure was opted after it has been established that there was no significant difference between using the ratio and the multiplier '2'.

Computing the Gini Ratio

The Gini Ratio is a measure of income inequality. It is most widely used because it only takes a single coefficient (ranging between 0 and 1) to calculate the degree of inequality. The value zero (0) represents complete equality of income, while one (1) represents complete inequality. The higher the value of Gini, the more unequal is the income among families. Using the Gini, it makes easy comparison of the degree of inequality between countries overtime. The Gini ratio conforms with the Lorenz curve, a cumulative frequency curve comparing the distribution of income with the uniform distribution that represents equality. An illustration of the Lorenz curve is shown below.



The actual computation of the Gini ratio from the FIES uses the family decile. Below shows an example of computing the Gini ratio using excel worksheet.

PERCENTAGE OF FAMILIES (b)	PROPORTION TO TOTAL INCOME	f_i	f_{i-1}	$f_{i-1} + f_i$
10	1.80	1.80	0.00	1.80
10	2.90	4.70	1.80	6.50
10	3.80	8.50	4.70	13.20
10	4.70	13.20	8.50	21.70
10	5.80	19.00	13.20	32.20
10	7.20	26.20	19.00	45.20
10	9.10	35.30	26.20	61.50
10	11.90	47.20	35.30	82.50
10	16.60	63.80	47.20	111.00
10	36.30	100.10	63.80	163.90
TOTAL				539.50

$$GINI = \frac{10,000 - b(f_{i-1} + f_i)}{10,000}$$

$$GINI = \frac{10,000 - 10(539.5)}{10,000}$$

$$GINI = 0.4605$$

Formula for the computation of Gini Ratio (in Excel Worksheet)

Income Decile	(C)	(E)	(G)	(I)	(J)	(K)
First Decile	1.8	0	=(C8+E8)	=(E8+G8)	=(I8*10)	
Second Decile	2.8	=(C8+E8)	=(C9+E9)	=(E9+G9)	=(I9*10)	
Third Decile	3.7	=(C9+E9)	=(C10+E10)	=(E10+G10)	=(I10*10)	
Fourth Decile	4.6	=(C10+E10)	=(C11+E11)	=(E11+G11)	=(I11*10)	
Fifth Decile	5.7	=(C11+E11)	=(C12+E12)	=(E12+G12)	=(I12*10)	
Sixth Decile	7.1	=(C12+E12)	=(C13+E13)	=(E13+G13)	=(I13*10)	
Seventh Decile	9	=(C13+E13)	=(C14+E14)	=(E14+G14)	=(I14*10)	
Eight Decile	11.8	=(C14+E14)	=(C15+E15)	=(E15+G15)	=(I15*10)	
Ninth Decile	16.6	=(C15+E15)	=(C16+E16)	=(E16+G16)	=(I16*10)	
Tenth Decile	36.8	=(C16+E16)	=(C17+E17)	=(E17+G17)	=(I17*10)	
		=(C17+E17)		=SUM(I8:I17)	=SUM(J8:J17)	=(10000-J18)/10000

Col. C - percent distribution of total income by decile

Deflating the FIES Estimates

To be able to compare the current FIES estimates with results from previous FIES in real terms, the effects of inflation should be removed. The consumer price index (CPI) is used to deflate these estimates. To express the 2006 FIES estimates in 2000 prices, the FIES estimates are divided by a deflator.

The deflator is obtained by dividing the current CPI by the base CPI. In the case of 2006 FIES, the CPI base year is for the year 2000. By formula, the deflator is computed as :

2006 CPI (Phil.)

2000 CPI (Phil.)

Use of Philippine COICOP to classify FIES Items

The **Classification of Individual Consumption by Purpose (COICOP)** is one of the four classifications of expenditure according to purpose in the 1993 System of National Accounts. The COICOP is used to identify individual consumption made for the benefit of individual persons or households. A Philippine version of this COICOP (termed as PCOICOP) has been prepared by the National Statistical Coordination Board in 2004 in consultation with the concerned national government data users and producers.

Adoption of the COICOP in the coding scheme for FIES has been planned to be implemented in 2012. This will require changes in the item coding as indicated in the FIES questionnaire. This change will also have an effect in the FIES data processing system. The estimates to be generated using the PCOICOP will somehow result in a break in the series of estimates of some items of expenditures.

CHAPTER 8. SUMMARY/RECOMMENDATIONS

The FIES, with its 72 page questionnaire and with its two visit scheme of collecting data have been open to comments and suggestions for its improvement. This included among others the improvement concerning data item content, lengthy interview time resulting to respondent's and enumerator's burden, questionnaire format, field operations procedures, data processing, sampling design as well as data quality.

Briefly described below are concerns often raised by data users. Any improvement that have to be implemented would require sufficient research study.

Generation of Family or Household Weight for FIES

One component for adjusting the FIES weight is the projected family count. Since there is no official methodology in place for projecting the family or household, the FIES depended on a derived estimate for the number of family/household; a ratio of 1:1 was adopted or one family to one household. The total number of family is determined by dividing the projected household population for the current FIES years with household size available from the latest Census of Population & Housing (CPH). For the 2006 FIES, the projected household population and the household size from the 2000 CPH was used. A methodological study to address this concern will be beneficial to improve the FIES estimates.

Lower Level Disaggregation for FIES Estimates

Starting 2003, the FIES adopted the 2003 Master Sample (MS) design for household survey. The region was the domain for this MS, hence reliable estimates were generated down to regional level only. During the developmental stage of the 2003 MS, the critical importance of generating disaggregation lower than the region such as province was considered. However, if provincial level estimates were to be generated with corresponding adequate precision, the design would require a larger sample size. Given the resources available for the conduct of survey such as FIES, a survey with large number of samples and to be conducted in two visits may not be feasible.

Clamor for lower level disaggregation (province, municipality, even barangay) have often been raised by data users. For the updating of the MS in 2012 (using the 2010 Census results), this concern should again be looked into. Meantime, the use of small area estimation can be tapped seriously to answer this data need.

Different Approach in FIES data collection

The FIES is conducted in two visits, and the estimates for these two visits are added up to provide annual estimates. More often, response burden for the sample households has been noted considering also that interview time would on the average be completed in 3 to 4 hours. A different approach in the data collection may be pursued to minimize interviewing

the same households, such as conducting FIES quarterly using a different sample for each quarter. Another suggestion is to conduct the FIES in one visit only collecting information for six months, and estimating the annual data using a defined formula. The 1995 study of the UPLB on the difference between the results of the FIES first and second visit can be used as a base study for this.

Enhancing Data on Quantity of Food Items

The FIES survey instrument has a column on quantity for the expenditure items. The quantity is collected alongside the price of the items. Starting 2000 FIES, the quantity on food items were included in the FIES PUF and made available for public use. There have been studies made using FIES quantity as input to poverty measurement. Since several food items are measured in bundles, cans and certain other local measurements, it would be helpful if the quantity reported in FIES can be standardized.

REFERENCES:

- Evaluation Study of the FIES: Philippine Social Science Council Research Team, 1988
- A Study on Decentralization and Philippine Statistical System Phase II, Module III, Part II Income & Poverty; Philippine Statistical Association, Inc. for the NSO under a research grant from the International Development Research Center (IDRC), (1995)
- Estimating Annual Income & Expenditure Based on the First Visit of the FIES: Division of Statistics and Statistical Laboratory-Institute of Mathematical Sciences & Physics-UPLB, National Statistics Office and UPLB Foundation Incorporated, August 1995
- FIES Enumerator's Manual (Various Years)
- FIES National Report (Various Years)

DEFINITIONS AND EXPLANATIONS

(Source: FIES Bulletin)

Family

A family is defined as a group of persons usually living together and composed of the head and other persons related to the head by blood, marriage or adoption. For purposes of this survey, the "extended" family concept is followed. A single person living alone is considered as a separate family.

The following are the different types of household used in the survey:

1. Single family - refers to the household composed of a single nuclear family. A nuclear family is composed of a father and mother with unmarried children or a parent with children. For purpose of the survey, a single person household is considered as a single family. Also considered are unmarried sisters and brothers who are living together as one household. The presence of a boarder and domestic helper will not change the household type.

2. Extended family - refers to the household composed of a nuclear family as defined above together with relatives like son-in-law, daughter-in-law, grandson, granddaughter, father, mother and other relatives.

3. Two or more non-related members - refers to a household with two or more non-related families or two or more persons not related to each other by blood, marriage or adoption.

Family Size

This refers to the total number of family members enumerated. Included as family members are those whose relationship to the household head are spouse, son, daughter, father, mother, son-in-law, daughter-in-law, sister, brother, granddaughter and grandson or other relative.

Family Income

Total family income includes primary income and receipts from other sources received by all family members during the calendar year 2006 as participants in any economic activity or as recipients of transfers, pensions, grants, etc.

Primary income includes salaries and wages, commissions, tips, bonuses, family and clothing allowance, transportation and representation allowances, honoraria, and other forms of compensation and net receipts derived from the operation of family-operated enterprises/activities and the practice of a profession or trade.

Income from other sources include imputed rental values of owner-occupied dwelling units, interests, rentals including landowner's share of agricultural products, pensions, support

and the value of food and non-food items received as gifts by the family (as well as the imputed value of services rendered free of charge to the family).

Also included as part of family income are receipts from family sustenance activities which are not considered as family-operated enterprise.

Following the International Labor Organization concept of income, the 2006 FIES excludes profits from sale of stocks and bonds, backpay and proceeds from insurance, net winnings from gambling, sweepstakes and lotteries and inheritance as part of family income. However, these are included as part of other receipts.

Income Decile

Two levels of income deciles were utilized in this survey - national and regional. The national income decile is obtained by ranking the weighted total family income of all sample families in the country from lowest to highest. Then these are compiled into ten groups. The first tenth, meaning those with the lowest income, is called the first decile; the second tenth, second decile and so on.

A similar procedure is implemented for the regional decile, except that what is arrayed is the weighted total family income of sample families in a given region.

Main Source of Income

This refers to the source from which most of the income of the family is obtained. If the family has more than one source of income, the main source that would be considered is the source where the bulk of income is derived.

Salaries and Wages from Employment

It includes all forms of compensation whether in cash or in kind received by family members who are regular or occasional/seasonal workers in agricultural and non-agricultural industries.

Imputed Rent of Owner-Occupied Dwelling Unit

Imputed rent is the estimated amount that the owner of a dwelling unit would charge if he/she were to rent his/her entire dwelling unit monthly, unfurnished and excluding the costs for utilities. The rental value is based on the prevailing rate in the locality.

Imputed rent differs from amortization payments. Imputed rent refers to the value of the house/lot based on its utility while amortization payments refer to the periodic payments made by the family on real property they acquired on installment basis.

Imputed rent of free housing enjoyed by employees is also included.

Net Share of Crops, Fruits and Vegetables Produced or Livestock and Poultry Raised by Other Households

This refers to the family's share of harvested crops, fruits, vegetables, etc., from the tenant or from a fixed rent or any amount out of the produce during the reference period. It also includes the share of the family from the proceeds of the sale of pig, cow, etc. which the family owned but raised by others and disposed of during the reference period although there was no landlord-tenant relationship between the sample family and the one who raised it.

Received as Gifts

Received as gifts includes all food and non-food items received in kind by the family during the reference period. For food items, alcoholic beverages and tobacco received in kind by the family, only those consumed by the family during the reference period are included. Foodstuffs received in the form of support, assistance or relief are likewise considered as gifts. However, food items, alcoholic beverages and tobacco consumed by a family member at parties attended, or food items offered to him by friends are not included.

Food and non-food items received as gifts include those received from other households, charitable institutions, the government or from persons abroad, free of charge.

Entrepreneurial Activity

An entrepreneurial activity or a family-operated activity is any economic activity, business or enterprise whether in agriculture or in non-agricultural enterprises, engaged in by any member of the family as an operator or as self-employed.

Included as family-operated activities are those which are operated as single proprietorship or loose partnership, without formal organization. Thus partnerships, corporations, associations, etc. which are formally organized are excluded.

Family Sustenance Activity

A family sustenance activity is also a family activity but unlike an entrepreneurial activity, the produce from the former is mainly for home consumption. Occasionally, sales are made when the harvest/produce is more than enough for family consumption.

Family Expenditures

Family expenditures refer to the expenses or disbursements made by the family purely for personal consumption during the calendar year 2006. They exclude all expenses in relation to farm or business operations, investment ventures, purchase of real property and other disbursements which do not involve personal consumption.

Gifts, support, assistance or relief in goods and services received by the family from friends, relatives, etc., are also included as part of family expenditures.

Value consumed from net share of crops, fruits and vegetables produced or livestock raised by other households, family sustenance and entrepreneurial activities are also considered as family expenditures.

Food Consumed at Home

The items included in this portion cover the actual consumption (not expenditure) of the family during the past week. This category includes the food prepared at home and eaten in place of work, school, etc., and those home-cooked food bought outside the home but eaten at home.

Food consumption covers only the actual consumption of the family, as well as domestic helpers and other persons employed by the family to do odd jobs around the house, and family guests (relatives or non-relatives who are not members of the household but had stayed with or visited the family for less than a week within the past week). The consumption of boarders and other persons in the same household not related to the family is excluded from this category.

Food Regularly Consumed Outside the Home

This includes food regularly bought and eaten by the family members outside the home like snacks, merienda, lunch, etc. The daily allowance of school children for their sandwiches, soft drinks, etc. at school is also covered in this category.

Fuel, Light and Water

This refers to the total family consumption of fuel, light and water consumed during the reference period. For a family who shares facilities with other households or whose total consumption includes both personal and business expenses, only an estimate of the family's personal consumption is reported.

Non-Durable Furnishings

This includes the value of all non-durable furnishings such as utensils and accessories (dinnerware, silverware, kitchen utensils, etc.) for family use acquired within the reference period including those bought/received by the family for use during special occasions.

If the non-durables are made at home for family use, the total value of the materials and the cost of labor paid are reported as the value of the finished products. However, the value of labor rendered by a household member free of charge is not included.

Durable Furniture and Equipment

This includes all durable furnishings or equipment such as pieces of furniture, garden tools, appliances, cars, etc. acquired on a cash basis during the reference period and intended for family use during ordinary days or during special occasions.

Those durable furniture and equipment purchased on installment basis during the reference period are also included. The reported total value is the total installments paid plus initial down payment made on the item during the reference period.

Durable furniture made at home for family use are also reported in this part, hence, the value included is the value of the materials used and the cost of labor paid. Value of labor rendered by any member of the household free of charge is not included.

Taxes

The following forms of taxes were included in the survey:

1. Income Tax - refers to the tax levied on the income of a working person in pursuit of his occupation.

2. Real Estate Tax - refers to the tax imposed on real property of the family (e.g. house and lot for family use) in proportion to its value. This includes real estate tax levied on real property of the family used for personal purposes. Therefore, taxes levied on private properties of the family used solely for business purposes are excluded.

3. Car Registration, Toll Fees and Driver's License - this includes registration fees for motor vehicles used for private transport of the family, toll fees, etc.

4. Other Direct Taxes - direct taxes refer to taxes which are demanded from a taxpayer, who shoulders the burden of the tax; or tax which the taxpayer cannot shift to another. Specific examples are inheritance tax, alien certificate of registration (ACR), donor's tax, etc. Other taxes paid by the family such as custom's duties paid for personal effects bought from abroad, amusement tax and taxes paid as a consumer are also included.

Other Receipts

These are non-income receipts comprising of value at cost of real and personal property sold, loans from other households, business firms and government institutions, payments for loans granted to others and withdrawals from savings or business equity. Profits from sale of stocks and bonds, back pay and proceeds from insurance, net winnings from gambling, sweepstakes and lotteries and inheritance are also included as other receipts.

Other Disbursements

Other disbursements refer to non-family expenditures, which may give an indication of savings on the part of the family. These include purchase or amortization of real property, payments of cash loan (principal), installments of appliances bought before 2006, installments for personal transport bought before 2006, loans granted to persons outside the

household, amount deposited in banks or investments and major repair or construction of a house.

Annex A

List of FIES Bulletin

Series	Title	Year
1. Philippine Statistical Survey of Households Bulletin (PSSH)		
Series no. 4	Family Income and Expenditure Survey	March 1957
2. BCS Survey of Households Bulletin (BCSSH)		
Series no. 14	Family Income and Expenditure Survey	1961
Series no. 22	Family Income and Expenditure Survey	1965
Series no. 34	Family Income and Expenditure Survey	1971
3. Integrated Survey of Households Bulletin (ISH)		
Series No. 56	1985 Family Income and Expenditure Survey Volume I – National Summary Final Report Volume II- Provincial/Key City Final Report Volume III – Supplementary Report (Variances) Volume IV – Analytical Report Volume V –Special Report on Housing	1985
Series No. 61	1988 Family Income and Expenditure Survey Volume I – National Summary Final Report Volume II- Provincial/Key City Final Report	1988
Series No. 72	1991 Family Income and Expenditure Survey Volume I – National Summary Final Report Volume II- Provincial/Key City Final Report	1991
Series No. 80	1994 Family Income and Expenditure Survey Volume I – National Summary Final Report Volume II- Provincial/Key City Final Report Volume V –Special Report on Housing (1991 & 1994)	1994
Series No. 98	1997 Family Income and Expenditure Survey Volume I – National Summary Final Report Volume II- Provincial/Key City Final Report	1997
Series No. 109	2000 Family Income and Expenditure Survey Volume I – National Summary Final Report Volume II- Provincial/Key City Final Report Volume III –Special Report on Housing	2000
	2003 Family Income and Expenditure Survey	2003