

**Philippines**  
**ISSP 2006 – Role of Government IV**  
**Study Description**

## Study Description Form – Philippines (PH)

### STATISTICAL METHODOLOGY

*Study Title:* ISSP 2006 Module on Role of Government IV

*Fieldwork Dates:* March 8 – 14, 2006 National Survey

#### 1. Location

The **ISSP 2006 Module on Role of Government IV** covered the entire Philippines and had four major study areas: National Capital Region (NCR), Balance Luzon (outside NCR), Visayas and Mindanao.

#### 2. Timetable

Fieldwork:

National Capital Region - March 8-14, 2006

Balance Luzon - March 8-14, 2006

Visayas - March 8-14, 2006

Mindanao - March 8-14, 2006

#### 3. Respondents

Data was gathered through face-to-face interviews of voting-age adults (18 years old and above). It asked a host of questions about political, social and economic issues, some undertaken as regular indicators monitored over time and others reflective of current concerns as well as specific personal information. It also obtained information and background characteristics about the household, the household head and family members.

#### 4. Sampling Method

**Sample Sizes and Error Margins.** An indicator of data quality is the standard error of the estimate, on which the margin for sampling error is based. As survey statistics are mostly proportions, the key measure of data precision is the standard error of a proportion taken from a sample. It is computed as follows:  $\pm Z * \sqrt{p(1-p)/n}$

Where  $Z$ , at 95% confidence level is 1.96;  $p$  is the sample proportion estimate and  $n$  is the sample size.

The overall sample size of 1,200 voting-age adults gives a maximum error margin of  $\pm 2.83\%$  at the 95% confidence level, assuming a simple random sampling design. The sampling error is at its highest when the true proportion being estimated is close to 50%.

The following approximate 95%-confidence margins for sampling error should be made when aggregating data at various levels:

Sample Size	Error margin
Philippines 1200	$\pm 3\%$
National Capital Region 300	$\pm 6\%$
Balance Luzon 300	$\pm 6\%$
Visayas 300	$\pm 6\%$
Mindanao 300	$\pm 6\%$

However, somewhat higher error margins should be expected since multi-stage cluster sampling was used; this design-effect is not readily measurable through established statistical software.

**Sampling scheme.** The Philippines was divided into four study areas: National Capital Region (NCR), Balance Luzon, Visayas, and Mindanao. The sample size for each of the four study areas is 300 voting-age adults.

Multi-stage probability sampling was used in the selection of sample spots. The allocation of sample units in each stage was as follows:

	Sample Prov.	Sample Mun.	Spots	Probability Respondents
National Capital Region	--	17	60	300
Balance Luzon	10	15	60	300
Visayas	5	15	60	300
Mindanao	6	15	60	300
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	21	62	240	1200

### ***For the National Capital Region***

#### **Stage 1. Selection of Sample Spots (Barangays)**

For NCR's first stage, 60 barangays are distributed among the 17 NCR cities and municipalities in such a way that each city/municipality was assigned a number of barangays that was roughly proportional to its population size. An additional provision was that each municipality must receive at least one barangay. Barangays were then selected from within each municipality with probability proportional to size (PPS).

#### **Stage 2. Selection of Sample Households**

In each sample barangay, five households were established by systematic sampling.

Designated starting points were randomly assigned - it was either: 1) a municipal/barangay hall, 2) a school, 3) the barangay captain's house, or 4) a church/chapel/mosque. A random start from 1-6 was also randomly generated for each spot. Thus, if a particular spot has a random start of 4, the first sample household should be the 4th household from the designated starting point. Subsequent sample households were chosen using a fixed interval of 5 households in between the sampled ones; i.e. every 6th household was sampled.

#### **Stage 3. Selection of Sample Adult**

For the third stage, in each selected household, a respondent is randomly chosen among the household members who were 18 years of age and older, using a probability selection table. In selecting the probability respondent of a household, only male family members were pre-listed in the probability selection table of odd-numbered questionnaires; only female family members were pre-listed for even-numbered questionnaires. A respondent not contacted during the first attempt was visited for a second time. If the respondent remained unavailable, or in cases where there was no qualified probability respondent of a given gender, the interval sampling of households would continue until five sample respondents were identified.

### ***For the rest of the Philippines***

#### **Stage 1. Allocation and Selection of Sample Provinces**

Balance Luzon was further divided into 5 regions: Region I, CAR + Region II, Region III, Region IV and Region V; Visayas into 3 regions: Region VI, Region VII and Region VIII; and Mindanao into 6 regions: Region IX, Region X, CARAGA, Region XI, Region XII and ARMM.

Using probability proportional to population size (PPS) of the region, the allocation of 10 provinces in Luzon, 5 in Visayas and 6 in Mindanao were as follows:

LUZON		VISAYAS		MINDANAO	
Region I	1	Region VI	2	Region IX	1
CAR/REG II	1	Region VII	1	Reg X	1
Region III	2	Region VIII	1	CARAGA	1
Region IV	3	Non-quota	1	Region XI	1
Region V	1			Region XII	1
Non-quota	2			ARMM	1
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TOTAL	10		5		6

The non-quota provinces were selected without replacement using probability proportional to their remainders. The remainders are fractions derived when the proportion of the regions (based on their respective study area) are multiplied by 10 for Luzon, and 5 for Visayas and 6 for Mindanao. For instance, if 1.45 is obtained for Region I, then 1 province is assigned to this region and remaining fraction of 0.45 is included for the allocation of the non-quota province. Given the target number of provinces for each region, sample provinces were then selected by PPS, without replacement. An additional provision is that each region must receive at least one province.

#### Stage 2. Allocation and selection of sample municipalities

Within each study area, 15 municipalities were allocated among the sample provinces. 15 was multiplied by the proportion of the provinces. The resulting integers became the number of municipalities in that province. If there were remaining municipalities to be allocated, they were distributed using probability proportional to the remainders.

Sample municipalities were then selected from within each sample province with probability proportional to population size, without replacement. An additional provision was that each province must receive at least one municipality.

#### Stage 3. Allocation and Selection of Sample Spots

Once the sample provinces have been selected, 60 spots for each of the major areas were allocated among the sample provinces. Using the target number set for each spot in each region, the spots were distributed in such a way the each province was assigned a number of spots roughly proportional to its population size.

LUZON		VISAYAS		MINDANAO	
Region I	7	Region VI	24	Region IX	10
CAR+REG II	8	Region VII	22	Reg X	9
Region III	15	Region VIII	14	CARAGA	7
Region IV	21			Region XI	17
Region V	9			Region XII	8
				ARMM	9
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TOTAL	60		60		60

Sample barangays within each sample municipality were selected with probability proportional to size. Sample barangays were then classified as urban or rural based on the latest National Statistics Office classification (2000).

#### Stage 4. Selection of Sample Households

For the fourth stage, within each sample spot, five households were established by systematic sampling. In urban barangays as well as in rural barangays, designated starting points were randomly assigned - it was either: 1) a municipal/barangay hall, 2) a school, 3) the barangay captain's house, or 4) a church/chapel/mosque. A random start from 1-6 was also randomly generated for each spot.

Thus, if a particular spot has a random start of 4, the first sample household should be the 4<sup>th</sup> household from the designated starting point. The sampling interval for urban barangays was six, while for rural barangays it was two.

#### Stage 5. Selection of Sample Respondents

For the fifth and final stage, as discussed earlier, a respondent was randomly chosen from among the voting-age adults in each selected household using a probability respondent selection table. A respondent not contacted during the first attempt was visited for a second time. If the respondent remained unavailable, or in cases where there was no qualified

probability respondent of a given gender, the interval sampling of households would continue until five sample respondents were identified.

## **5. Research Methodology**

### ***a. Preparation***

#### **(1) Questionnaire**

The definitive language version of the questionnaire, Tagalog, was translated into English, Cebuano, Ilonggo, Ilocano, and Bicolano by language experts. Then the language translation underwent cognitive pretests to make sure that the messages were conveyed accurately.

#### **(2) Pre-Testing and Finalizing the Questionnaire**

SWS pre-tested the questionnaire on 10 voting-age adults from different socio-economic classes in order to:

- Determine the time length of the interview
- Improve the wording of the questions, if necessary
- Eliminate unnecessary questions or add new items, as the case may be
- Test question sequence and identify bases
- Correct and improve translation
- Change open-ended questions into multiple-choice questions
- Find out which items are conceptually vague
- Check accuracy and adequacy of the questionnaire instructions
- Determine whether the focus of the question is clear
- Identify interviewer's recording difficulties

#### **(3) Training**

(a) Training was conducted in 9 central locations: the SWS Office in Quezon City, Nueva Ecija, Cavite, Masbate, Bacolod City, Cebu, Davao, Iligan City and Cagayan de Oro City. The interviewers needed to cover NCR and Rizal were trained in Quezon City, those trained in Nueva Ecija covered Pangasinan, Quirino, Nueva Ecija and Pampanga, those trained in Cavite covered Cavite, Laguna and Oriental Mindoro, while those trained in Masbate covered Camarines Sur, Masbate and Aklan. Those trained in Bacolod City covered Negros Occidental, while those trained in Cebu covered Bohol, Cebu and Leyte. Those trained in Davao covered Davao del Sur and Maguindanao, those trained in Iligan City covered Zamboanga del Norte and Lanao del Norte, those trained in Cagayan de Oro City covered Misamis Oriental and Agusan del Norte.

(b) Training time - The minimum training time for group supervisors and interviewers was 2 days prior to field implementation. The third day was the start-off, where the field supervisor observed the field interviewers on their first interviews.

(c) Training Activities - These mainly consisted of:

One or two days office training to learn the basics of the project. Mock interviews among participants, i.e. field interviewers interviewing field anchors as respondents are done to get accustomed to the flow of interviewing and questionnaire format.

Interviews were practiced with a supervisor around until the interviewer could be left on her own.

(d) Evaluation of interviewer's work - All first interviews of each field interviewer were observed by her field supervisor, and then evaluated. Only after meeting a certain evaluation criteria was an interviewer left to interview on her own, although her field supervisor always stayed within the vicinity of the sample spot to conduct checks.

### ***b. Field Work***

#### **(1) Workers on Hand**

For this project, a total of 75 field staff were deployed:

Field Manager = 1

NCR Field Anchors = 1

Field Interviewers = 15

Balance Luzon Field Anchors = 4

Field Interviewers = 16

Visayas Field Anchors = 3

Field Interviewers = 16

Mindanao Field Anchors = 3

Field Interviewers = 16

## (2) Supervision

Supervisors reporting to the field manager monitored the study full-time. They observed interviewers, (at least 10% of total interviewers were observed by supervisors), followed-up and did surprise checks on the field interviewers. They also ensured that field logistics were received promptly and administered properly.

## (3) Spot-checking

Part of quality control was to make sure at least 30% of each interviewer's output was spot-checked and back-checked. Once an incomplete or inconsistent answer was spotted in the questionnaire, the field interviewer went back to the respondent's house to re-ask the question for verification.

## **c. Field Editing**

(a) After each interview, the interviewer was asked to go over her own work and check for consistency.

(b) All accomplished interview schedules were submitted to the assigned group supervisor who, in turn, edited every interview.

## (c) Data Processing

(1) Office editors conducted final consistency checks on all interviews prior to coding.

(2) A data entry computer program verified and checked the consistency of the encoded data before data tables were generated.

## **6. Weighting Procedure**

To yield representative figures at the national level, census-based population weights are applied to the survey data. The weight projection is computed by dividing the projected population in the area by the sample size of the same area. Appropriate projected factors were applied so that original population proportions were reflected in the data tables using this formula.

For questions pertaining to household (HH), the following projection factors were used:

The SPSS version of the data file is already weighted according to the above projection factors. As the data are weighted, the total number of cases that appear is 50,447. The figure is in thousands, i.e., 50,446,523 persons representing NSO's projected number of adults (18 years old and above) for year 2005 based on the 1995 Census.

Researchers who are defining data using the ASCII files should apply these projection factors.