

Philippines - Census of Philippine Business and Industry 2006, Mining and Quarrying, Manufacturing and Electricity, Gas and Water Supply

National Statistics Office

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Overview

Identification

ID NUMBER

PHL-NSO-CPBI-CDE-2006-v1.0

Version

VERSION DESCRIPTION

v1.0: final data sets

(Note: Publication volume attached to this metadata)

PRODUCTION DATE

2009-11

NOTES

The data provided in this documentation is classified by establishments' size, that is, by total employment of less than 20 and total employment of 20 and over.

The data series for Mining and Quarrying are presented at the national level for establishments for all employment sizes, establishments with total employment of less than 20 and total employment of 20 and over.

While the data series for Electricity, Gas and Water Supply are presented at the regional level for establishments for all employment sizes, establishments with total employment of less than 20 and total employment of 20 and over.

And lastly, the data series for Manufacturing are presented at the national level for establishments for all employment sizes while establishments with total employment of less than 20 and total employment of 20 and over are disaggregated by region.

Refer to Volume III for Mining and Quarrying, Volume IV-A to IV-C for Manufacturing and Volume V for Electricity, Gas and Water Supply in the reference documents included.

Overview

ABSTRACT

The 2006 Census of Philippine Business and Industry (CPBI) is a comprehensive collection, compilation, evaluation, analysis and dissemination of data about the economic activities of a country. It seeks to collect and generate information on the levels, structure, and trends of economic activities in the entire country. It also serves as a benchmark for the measurement and comparison of national, regional and provincial economic growth.

The scope of the census consists of 14 sectors of the Philippine economy as classified in the 1994 Philippine Standard Industrial Classification (PSIC).

This metadata presents the documentation of three sectors only namely: Mining and Quarrying sector (Major Division C), Manufacturing sector (Major Division D) and Electricity, Gas and Water Supply sector (Major Division E). It includes the procedures undertaken in all phases of the census, information on the final datasets, publication volumes, copy of questionnaire used, and other informative documents related to the census operation.

KIND OF DATA

Census/enumeration data [cen]

UNITS OF ANALYSIS

The establishment is the unit of enumeration for this census.

Scope

NOTES

The 2006 CPBI is a nationwide undertaking confined to the formal sector of the economy and as such excludes the informal sector. The formal sector is composed of the following:

- a. corporations, partnerships, cooperatives, and associations;
- b. single proprietorships with total employment of 10 or more;
- c. single proprietorship with branches; and
- d. foundations and cooperatives.

As such, the 2006 CPBI-CDE covers all Mining and Quarrying, Manufacturing and Electricity, Gas and Water Supply establishments engaged in economic activities classified according to Major Divisions C, D and E, respectively, of the amended 1994 Philippine Standard Industrial Classifications (PSIC). These are the following:

- a. all establishments with total employment of 10 and over
- b. all establishments with total employment of less than 10 except under single proprietorship with single establishments.

The 2006 CPBI for Mining and Quarrying, Manufacturing and Electricity, Gas and Water Supply collected the following major data items:

- Name and address of establishment
- Economic activity or business
- Year started operation
- Legal organization
- Economic organization
- Name and address of main office and contact person
- Employment
- Production/Construction workers and hours worked
- Compensation
- Revenue
- Subsidies
- Cost
- Capital expenditures and sale of fixed assets, including losses and damages
- Capital expenditures for intangible assets
- Book value of fixed assets
- Value of intangible assets

- Capacity utilization
- Inventories
- Branches, divisions, plants owned or controlled (for Main Office)

Coverage

GEOGRAPHIC COVERAGE

The geographic domain was the region for establishments with total employment of less than 20. For those establishments with total employment of 20 and over, the geographic domains were the province, independent component city, chartered city and highly urbanized city, and all NCR municipalities. Hence, the 2006 CPBI can provide estimates up to the selected city level for establishments in the total employment of 20 and over while for those with less than 20, up to the regional level.

These selected cities are as follows:

National Capital Region: all municipalities/cities

Cordillera Administrative Region: Baguio City

Region II: Santiago City

Region III: San Jose del Monte City, Angeles City and Olongapo City

Region IVA: Antipolo City and Lucena City

Region V: Naga City

Region VI: Bacolod City and Iloilo City

Region VIII: Ormoc City

Region IX: Isabela City and Zamboanga City

Region X: Cagayan de Oro City and Iligan City

Region XI: Davao City

Region XII: Cotabato City and General Santos City

CARAGA: Butuan City

For a complete listing of the geographic domains, please refer to the 'Sampling Domain' section of the publications (Volumes III to V) included in the Reports linked to this documentation.

GEOGRAPHIC UNIT

The lowest levels of geographic aggregation of data are:

- . Municipality/city for establishments with total employment of 20 and over
- . Region for establishments with total employment of less than 20

UNIVERSE

All mining and quarrying, manufacturing, and electricity, gas and water supply establishments considered in the formal sector.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

| Name | Affiliation |
|----------------------------|-------------|
| National Statistics Office | |

FUNDING

| Name | Abbreviation | Role |
|----------------------------|--------------|------|
| National Statistics Office | NSO | |

OTHER ACKNOWLEDGEMENTS

| Name | Affiliation | Role |
|---|-------------|----------------------|
| National Statistical Coordination Board | | Review and Clearance |

Metadata Production

METADATA PRODUCED BY

| Name | Abbreviation | Affiliation | Role |
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Sampling

Sampling Procedure

The 2006 CPBI used stratified systematic sampling with five-digit PSIC or groups of five-digit PSIC and/or four-digit PSIC or groups of four-digit PSIC and/or three-digit PSIC or groups of three-digit PSIC serving as first stratification variable and total employment as the second stratification variable.

The complete details of the aboved-mentioned procedures are in 'Sampling Design' section of publications (Volumes III to V) included in the Reports linked to this documentation.

Data of non-responding establishments were imputed manually and electronically based on established imputation methods. Sources of information were from previous reports of the same establishment, or from report of other responding establishment with similar characteristics, financial statements filed at Securities and Exchange Commission and other establishment-based surveys such as MISSI and QSPBI. 'Hot and cold deck' imputation methods were used for partial and total non-response.

The 2006 CPBI sampling frame is extracted from the 2006 List of Establishments (LE). The 2006 LE is the combined result of the following:

1. 2004 Updating of the List of Establishments conducted in the NCR and in selected urban barangays in cities, provincial capitals and first class municipalities (2004 ULE areas) during the period September 2004 to May 2005
2. 2005 ULE in rural barangays in provincial capitals, cities and municipalities of selected provinces conducted from September to December 2005. The selected provinces are the provinces in Regions 3, IVA and IVB, provinces where the NSO Regional Office is located, and provinces with the highest count of establishments in rural barangays of provincial capitals, cities and municipalities. It also covered growth areas in selected provinces
3. Supplemental lists containing establishments in the following sources but not found in the LE
 - . Bureau of Fisheries and Aquatic Resources list of fishing companies
 - . Bureau of Internal Revenue business taxpayers (corporations only) as of 2004
 - . Clark Special Economic Zone 2006 list of locators
 - . Department of Education list of schools
 - . Department of Tourism list of hotels
 - Federation of Philippine Industries list of members as of 2006
 - Frame of the 2006 Survey of IT-Enabled Services of Bangko Sentral ng Pilipinas
 - Laguna Lake Development Authority list of fishpen operators (corporations only)
 - Philippine Export Zone Authority list of firms as of June 30, 2006
 - Philippine Retailers Association list of members as of July 2006
 - Subic Bay Freeport Zone and Subic Economic Zone approved projects as of August 31, 2006
 - . Survey feedbacks from the 2006 Monthly Integrated Survey of Selected Industries (MISSI), 2006 Quarterly Survey of Philippine Business and Industry (QSPBI), and the 2005 ASPBI
 - . List of Establishments with total employment of 20 and over verified existing by field offices.

An estimate from the 2006 LE shows that there were about 783,000 establishments in operation in the country for the year. Distribution of these establishments, as shown in Figure 1, reveals that about 80 percent are classified in the informal sector and thus are excluded from the 2006 CPBI frame.

Response Rate

The total number of sample establishments for the mining and quarrying sector is 106. This is broken down by establishments' size, that is, 73 for total employment of 20 and over and 33 for total employment of less than 20.

The overall response rate is 95.3 percent for the mining and quarrying sector. For establishments with total employment of 20 and over, the response rate is 100.0 percent while that for establishments with total employment of less than 20 is 93.2

Philippines - Census of Philippine Business and Industry 2006, Mining and Quarrying, Manufacturing and Electricity, Gas and Water Supply percent.

On the other hand, the total number of samples for the manufacturing sector is 10,533. That is, 5,663 for total employment of 20 and over while for total employment of less than 20 is 4,870.

For the manufacturing sector, the overall response rate is 94.1 percent. The response rate is 91.0 percent for establishments with total employment of 20 and over, and 97.6 percent for establishments with total employment of less than 20.

While for the electricity, gas and water supply sector, the total number of samples is 1,097. That is, 477 samples for total employment of 20 and over and 620 for total employment of less than 20.

The overall response rate for electricity, gas and water supply sector is 93.8%, with 90.1percent and 96.6percent, for total employment of 20 and over and total employment of less than 20, respectively.

Weighting

Sample weights (W) for the establishment data were computed as,

$$W=N/n$$

where:

N = total number of establishments

n = total number of sample establishments

Weight Adjustment Factor for Non-response

To account for non-response in the non-certainty strata, the adjustment factors n/n' was multiplied with the weight W of each sampling unit. The sampling weight which is defined as $W=N/n$ was recomputed as

$$W' = N/n * n/n' = N/n'$$
 General Formula

Please refer to the complete details of weight adjustment factor for non-response in the 'Estimation Procedure' section of the publications (Volumes III to V) included in the Reports linked to this documentation.

Questionnaires

Overview

The 2006 CPBI has undergone a clearance process by the NSCB. It utilized four types of questionnaires with NSCB approval numbers and expiration date of June 30, 2008.

Form TypeMajor DivisionSpot ColorNSCB Approval No.

CPBI Form No. 1..... Agriculture, Hunting & Forestry;.....Green.....NSO-7404-01

.....Fishing

CPBI Form No. 2..... Mining and Quarrying;.....Yellow.....NSO-7404-02

.....Manufacturing;

.....Electricity, Gas and Water

CPBI Form No. 3.....Construction.....Orange.....NSO-7404-03

CPBI Form No. 4.....Business and Services.....Blue.....NSO-7404-03

Refer to the copy of CPBI Form No. 2, the questionnaire used for Mining and Quarrying, Manufacturing, and Electricity, Gas and Water Supply sectors included in the Reports linked to this documentation.

In addition, an e-questionnaire or electronic copy of forms for the 2006 CPBI was developed for respondents to submit via the NSO Website. The file of the e-questionnaire is in excel format and can be accessed using Microsoft Office Excel. Every page in the CPBI questionnaire has a corresponding worksheet in the e-questionnaire. The file has also a macro-program that enables the user to create an encrypted text file of the supplied data. The encrypted file is then emailed to NSO (ITSD-Receipt and Control Unit) for submission by respondents, thus facilitating data collection.

Data Collection

Data Collection Dates

| Start | End | Cycle |
|------------|------------|-------|
| 2007-06-01 | 2007-07-29 | N/A |

Time Periods

| Start | End | Cycle |
|------------|------------|-------|
| 2006-01-01 | 2006-12-31 | N/A |

Data Collection Mode

Other [oth] Self-Administered Questionnaire (SAQ)

Data Collection Notes

Beginning with the 2006 CPBI, the NSO utilized current technology, such as the e-mail and NSO Website, to improve survey operations particularly in the collection of establishments' data. Although, the overall response to this method of data collection was still low (0.1% of total workload).

Refer to the 'Field Operations' section for the information on data collection including the levels of training conducted prior to data collection, in the publications (Volumes III to V) in the Reports linked to this documentation.

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Data Collectors

| Name | Abbreviation | Affiliation |
|----------------------------|--------------|-------------|
| National Statistics Office | NSO | |

Supervision

The NSO has an organizational structure in the field offices that undertakes the data collection for all censuses and surveys. Regional Directors, Provincial Statistics Officers, and Regional and Provincial Statisticians served as supervisors to ensure the efficient conduct of the census operations.

Two rounds of spotchecking were conducted by selected ITSD staff in January to February 2008 and in April 2008 to further increase the response rate and improve the quality of reports. Selected provinces were visited based on their response rates and number of uncollected questionnaires. Establishments with total employment of 100 and over were prioritized. During the spotchecking, the ITSD staff held meetings with field staff to discuss and assess the problems encountered in data collection. They also visited sample establishments found to be non-responding, closed and those with problems in the submitted 2006 CPBI questionnaires.

Data Processing

Data Editing

Manual editing of data was done in three levels, as follows:

a) Field editing of data was done by the field men, hired SRs and provincial staff upon collection of the accomplished questionnaires from the establishments. The objective is to check for completeness and consistency of entries in the questionnaires, following the instructions provided in the Field Operations and Processing Manual. Any inconsistent or missing data was corrected at this stage as this can be immediately verified from the respondents.

b) Office verification was done by provincial office staff upon receipt of the accomplished questionnaires from the field men and hired SRs. In some instances, the staff contacted directly the establishments through phone call or sent email inquiries to verify some inconsistent or missing data.

c) Desk verification was done in the Central Office to check the consistency and reasonableness of entries in the accomplished questionnaires. This process also validated the status of establishments that were non-responding and reported closed, cannot be located, transferred, and out of scope. Telephone inquiry was extensively utilized to verify information from the establishment's contact person. The internet was also used to obtain information on the contact address and to research for information on the status of the establishment.

Other Processing

Machine Processing

Machine processing consists of data entry, structural and consistency checks and encoding of updates, and generation and analysis of completeness of questionnaires with ID validation and summary file reports.

A microcomputer-based machine processing and tabulation system for the 2006 CPBI was developed by the IRD staff using Census and Survey Processing (CSPRO) software.

For the complete details of the above modules, refer to Scripts and programs in the data processing documentation, data editing guidelines, data processing programs in CSPRO and tabulation guidelines.

CSPRO is a software package developed by the International Processing Center of the United States Bureau of Census. It has several modules specifically designed for processing census and survey data. However, only four of these modules were employed in the 2006 CPBI computer system. These modules are the data dictionary editor, data entry, batch edit, and cross tabulation.

Data entry was done by IRD-Information and Technology Operations Division staff and ITSD subject matter staff while the remaining machine processing activities were done by the subject matter staff.

Imputation Methods Used:

1. Estimation of missing data items using data of other responding establishment

Ratio estimation was utilized to assign values for missing data using accomplished questionnaire of other responding establishment with the same establishment's characteristics as auxiliary information in the estimation process.

2. Estimation of missing data items using other data of the same questionnaire

Several formulas were used to check the consistency and reasonableness of data items in the questionnaire. These were the formulas used to derive the missing data items in the questionnaire.

3. Estimation of missing data items from external records

Supplementary information from other sources like financial statement of the sample establishment or report of the same sample establishment from other surveys like MISSI and QSPBI was utilized to estimate the missing data in the accomplished questionnaire.

Data Appraisal

Estimates of Sampling Error

The estimates of standard error by sector and industry were computed as input to the design of succeeding survey, in this case, the 2008 ASPBI.