

# Philippines - Annual Survey of Philippine Business and Industry (ASPBI) 2015, 44th round

**Philippine Statistics Authority (PSA)**

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# Overview

## Identification

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### ID NUMBER

PHL-PSA-ASPBI-2015-v1.0

## Version

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### VERSION DESCRIPTION

v1: Edited data, first version, for internal use only

### PRODUCTION DATE

2018-10-19

## Overview

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### ABSTRACT

The 2015 Annual Survey of Philippine Business and Industry (ASPBI) aims to collect and generate information on the levels, structure, performance and trends of economic activities of the formal sector in the entire country for the year 2015.

Like the 2014 ASPBI operations, the data processing will be decentralized to the Provincial Statistical Offices (PSOs) as the provinces are near the establishments which are data source of the survey.

Specifically, the 2015 ASPBI aims to:

- collect and generate detailed information on employment, income, expense, capital expenditures and total assets of the establishments;
- generate indicators such as value added, labor productivity, average compensation and others necessary to evaluate the performance of industries at the national and regional levels;
- generate MSME (micro, small and medium establishments/enterprises) data using total assets; and
- gather information for the improvement of the list of establishments.

The data collected from the ASPBI will constitute bases upon which the government and the private sector can formulate policies and evolve economic development plans.

Specifically, the survey results are used in:

- constructing national and regional income accounts of the Philippine economy;
- formulating and monitoring plans/policies in the attainment of national and regional economic goals;
- determining and comparing regional economic structures and performances;
- analysing the performance and contribution of MSMEs to the total economy;
- conducting market research and feasibility studies among others; and
- updating the frame of establishments.

### KIND OF DATA

Sample survey data [ssd]

## UNITS OF ANALYSIS

Establishment.

## Scope

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## NOTES

The 2015 ASPBI is a nationwide undertaking of establishments confined to the formal sector of the economy and as such excludes the informal sector.

The formal sector comprises the following:

1. Corporations and partnerships
2. Cooperatives and foundations
3. Single proprietorship with employment of 10 and over
4. Single proprietorship with branches

Therefore, this survey covers only the following economic units:

1. All establishments with TE of 10 or more, and
2. All establishments with TE of less than 10, except those establishments with Legal Organization, single proprietorship (LO=1); and Economic Organization, single establishment (EO=1); that are engaged in economic activities, classified according to the 2009 Philippine Standard Industrial Classification (PSIC).

Listed below with the corresponding scope and coverage:

I. Agriculture, Forestry, and Fishing (A)

Scope: All economic activities

Coverage: EO = 1, 2 & 3

II. Mining and Quarrying (B)

Scope: All economic activities

Coverage: EO = 1, 2 & 3

III. Manufacturing (C)

Scope: All economic activities

Coverage: EO = 1, 2 & 3

IV. Electricity, Gas, Steam, and Air Conditioning Supply (D)

Scope: All economic activities

Coverage: EO = 1, 3 & 4 for Electric Cooperatives (D35100) with LO=6

EO = 1, 2 & 3 for the rest of the section

V. Water Supply; Sewerage, Waste Management and Remediation Activities (E)

Scope: All economic activities

Coverage: EO = 1, 2 & 3

VI. Construction (F)

Scope: All economic activities

Coverage: EO = 1, 3 & 4

VII. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (G)

Scope: All economic activities, except retail sale via stalls and markets (G478)

Coverage: EO = 1, 2 & 3 Except sari-sari stores (G47113) with no regularly paid employee

VIII. Transportation and Storage (H)

Scope: All economic activities, except jeepney and AUV operation (H49321) tricycle, calesas, pedicabs operation (H49322)

Coverage: EO = 1, 3 & 4

IX. Accommodation and Food Service Activities (I)

Scope: All economic activities

Coverage: EO = 1, 2 & 3

X. Information and Communication (J)

Scope: All economic activities

Coverage: EO = 1, 3 & 4 for the following industries:

Wired telecommunications activities (J611),

Wireless telecommunications activities (J612),

Satellite telecommunications activities (J613),

Telephone access in facilities open to the public service activities (J61901)

Other telecommunications service activities, n.e.c. (J61909)

EO = 1, 2 & 3 for the rest of the section

XI. Financial and Insurance Activities (K)

Scope: All economic activities, including activities of holding companies except central banking (K64110)

Coverage: EO = 1, 3 & 4

XII. Real Estate Activities (L)

Scope: All economic activities

Coverage: EO = 1, 3 & 4

XIII. Professional, Scientific and Technical Activities (M)

Scope: All economic activities

Coverage: EO = 1, 2 & 3

XIV. Administrative and Support Service Activities(N)

Scope: All economic activities

Coverage: EO = 1, 3 & 4 for the following industries:

Travel agency and tour operator activities (N791)

Other reservation service and related activities (N799)

Security and investigation activities (N80)

General cleaning of buildings (N81210)

EO = 1, 2 & 3 for the rest of the section

#### XV. Education (P)

Scope: All economic activities, except public education services

Coverage: EO = 1, 2, & 3

#### XVI. Human Health and Social Work Activities (Q)

Scope: All economic activities, except public medical (Q8611), dental and other health services (Q8621) and doctor's offices/clinics in hospitals

Coverage: EO = 1, 2, & 3

#### XVII. Arts, Entertainment and Recreation (R)

Scope: All economic activities

Coverage: EO = 1, 2, & 3

#### XVIII. Other Service Activities (S)

Scope: All economic activities, except activities of membership organizations (S94)

Coverage: EO = 1, 2, & 3

#### TOPICS

Topic	Vocabulary	URI
Agriculture, forestry, fisheries	Philippine Statistics Authority	
Mining, manufacturing, construction	Philippine Statistics Authority	
Energy	Philippine Statistics Authority	
Transport	Philippine Statistics Authority	
Banking, insurance, financial statistics	Philippine Statistics Authority	
Business statistics	Philippine Statistics Authority	

## Coverage

#### GEOGRAPHIC COVERAGE

National - for All establishments

Regional- for establishments with TE 20 and over

National Capital Region (NCR)

## Cordillera Administrative Region (CAR)

Region I - Ilocos Region

Region II - Cagayan Valley

Region III - Central Luzon

Region 4A - CALABARZON

MIMAROPA

Region V - Bicol Region

Region VI - Western Visayas

Region VII - Central Visayas

Negros Island Region

Region VIII - Eastern Visayas

Region IX - Zamboanga Peninsula

Region X - Northern Mindanao

Region XI - Davao Region

Region XII - SOCCSKSARGEN

Region XIII - Caraga

Autonomous Region in Muslim Mindanao (ARMM)

## GEOGRAPHIC UNIT

The primary consideration in the determination of sample size for the survey was its manageability at the optimum level of estimated budget without compromising the reliability and accuracy of survey results and the timeliness of retrieval of accomplished questionnaires from respondents.

Sample sizes for each of the strata were determined separately by employment stratum to achieve a minimum precision of 4% margin of error for a 90% confidence interval on employment estimates. Then, the sample size for industry stratum was determined by applying specified sampling rates and allocation rule for each employment stratum. Total sample size was obtained by aggregating separately each estimate at the industry stratum.

For sampling purposes, the survey frame was divided into the five primary strata. Stratum 1 comprises of Mining and Quarrying (B) and Electricity, Gas, Steam and Air Conditioning Supply (D); Stratum 2 consists of certainty industries including the Information and Communication Technology (ICT) core industries and Business Process Management (BPM) industries; Stratum 3 for GOCCs; Stratum 4 is composed of establishments with TE 100 and over; and all other establishments not classified in strata 1-4 were grouped as Stratum 5 and were treated as Non-Certainty Stratum. Strata 1-4 were considered as certainty stratum.

## UNIVERSE

The ASPBI 2015 covered all operating establishments in 2015.

Establishment with TE of 20 and Over - national and regional

Establishment with TE less than 20 - national

## Producers and Sponsors

## PRIMARY INVESTIGATOR(S)

Name	Affiliation
Philippine Statistics Authority (PSA)	National Economic and Development Authority (NEDA)

## FUNDING

Name	Abbreviation	Role
Government of the Philippines	GOP	Full Funding

## Metadata Production

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## METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Industry Statistics Division	ISD	Philippine Statistics Authority	Documenter

## DATE OF METADATA PRODUCTION

2020-02-28

## DDI DOCUMENT VERSION

Version 1.0 - First metadata Documentation of ASPBI 2015

## DDI DOCUMENT ID

DDI-PHL-PSA-ASPBI-2015-v1

# Sampling

## Sampling Procedure

The primary consideration in the determination of sample size for the survey was its manageability at the optimum level of estimated budget without compromising the reliability and accuracy of survey results and the timeliness of retrieval of accomplished questionnaires from respondents.

Sample sizes for each of the strata were determined separately by employment stratum to achieve a minimum precision of 4% margin of error for a 90% confidence interval on employment estimates. Then, the sample size for industry stratum was determined by applying specified sampling rates and allocation rule for each employment stratum. Total sample size was obtained by aggregating separately each estimate at the industry stratum.

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The Stratum Code, Sampling Units, Sampling Indicator are as follows:

- 1 - Establishments under section B and D - Certainty
- 2 - Establishments under the certainty industries ( SICT Core Industries, BPM industries and Tourism characteristic industries) - Certainty
- 3 - GOCCs - Certainty
- 4 - Establishments with TE of 100 and over - Certainty
- 5 - All other establishments not classified in strata 1-4 - Non-Certainty

A certainty stratum is defined as the employment stratum whose sampling ratio is 100 percent. In this stratum, all establishments are taken as certainty samples, i.e. the selection probability is 1 and the sampling weight is 1. On the other hand, a non-certainty stratum is the employment stratum where only sample establishments are taken.

The corresponding sampling rates by employment stratum for establishments in the non-certainty employment size strata are as follows:

- 1 - 9 (10 %)
- 10 - 19 (15 %)
- 20 - 49 (25 %)
- 50 -99 (50 %)

For TE of less than 20

The sample size for establishments with TE of less than 20 was determined by applying the specific sampling rates for each employment stratum (that is, separately for strata TE 1 - 9 and TE 10 - 19) of the same industry stratum (5-digit PSIC) at the national level.

No allocation was done in these strata as the sample sizes were determined at the 5-digit PSIC (industry domain) and national level.

Minimum sample size is set to 3 establishments and maximum of 5 establishments per cell (industry domain and employment stratum). However, when the total number of establishments (N) in the cell is equal to or less than the set minimum sample size, all establishments in that cell are taken as samples.

The estimated sample size for establishments for these employment strata is about 10,923.

For TE of 20 and over



The sample size for establishments with TE of 20 and over was obtained by applying the specific sampling rates for the ith employment stratum in the hth industry stratum at the national level and then allocating to geographic domain (region).

Proportional allocation was used in allocating the number of samples in the sampling strata of TE 20 - 49 and TE 50 - 99 of the industry domain at the regional level. Basis of allocation is the total number of establishments (N) in the region by industry domain and by employment stratum. The formula used was,

$$nh_{ij} = (Nh_{ij}/N_{hi}) \times n_{hi}$$

where:

$Nh_{ij}$  = total number of establishments in the jth region of the ith employment stratum in the hth industry domain

$N_{hi}$  = total number of establishments in the ith employment stratum of the hth industry domain

$nh_{ij}$  = number of sample establishments in the jth region of the ith employment stratum in the hth industry domain

$n_{hi}$  = Number of sample establishments in the ith employment stratum of the hth industry domain

The sample sizes were likewise controlled to a minimum of 3 establishments and maximum of 5 establishments per cell (industry domain, employment stratum in the region). However, when the total number of establishments (N) in the cell is equal to or less than the set minimum sample size, all establishments in that cell are taken as samples.

The aggregate sample size for TE of 20 and over in all sectors is about 19,691.

Thus, the total number of samples for the 2015 ASPBI is about 30,614.

For all sectors, sample establishments in the sampling strata of TE of less than 20 are selected using systematic sampling by industry domain and employment stratum at the national level. For each industry domain and employment stratum, the establishments are sorted by region, province from largest actual employment to smallest actual employment, business name and ECN.

For each of the sampling strata of TE of 20 and over (i.e. TE 20-49 and TE 50-99) sample establishments are selected using systematic sampling within the region. For each region in the employment stratum and industry domain, the establishments are sorted by province from largest actual employment to smallest actual employment, business name and ECN.

Systematic sampling is chosen so that the sample employment values are spread out, resulting from having representative samples for each TE size in the employment stratum. Likewise, this mode of sampling will somehow provide implicit stratification of TE by employment size group, thus avoiding all sample establishments with low TE values or high TE values.

## Response Rate

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Field operations of the 2015 ASPBI was scheduled from April to July 2016.

Distribution was undertaken for a period of one (1) month starting April 13, 2016 to May 20, 2016.

Collection of questionnaires was from May 2, 2016 to July 15, 2016.

The total number of sample establishments for the survey operations was 30,552 of which 28,715 or 94.0 percent responded.

Total response rate include receipts of "good" questionnaires, partially accomplished questionnaires, reports of closed, moved out or out of scope establishments.

## Weighting

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For certainty stratum, the weight is equal to 1.

For non-certainty,

Weight Adjustment Factor for Non-Response

To account for non-response in the non-certainty strata, the adjustment factor ( $n/n'$ ) was multiplied with the sampling weight

(W) of each of the sampling unit. The sampling weight, defined as  $N/n$ , was recomputed as

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

Thus, the adjusted weight ( $W's_j$ ) for employment stratum in TE of 1-9 or TE of 10-19 was

$$W's_j = N_s/n_s * n_s/n's = N_s/n's$$

where:

$N_s$  = total number of establishments in the employment stratum in TE 1-9 or TE 10-19 in the sth industry domain

$n's$  = number of responding establishments in the employment stratum in TE 1-9 or TE 10-19 in the sth industry domain

For the non-certainty employment stratum for the industry domain with TE 20-99, the adjusted weight ( $W's_{pj}$ ) was

$$W's_{pj} = N_{sp}/n_{sp} * n_{sp}/n'sp = N_s/n'sp$$

where:

$N_{sp}$  = total number of establishments in the non-certainty employment stratum with TE 20-99 for the industry domain within each geographic domain (region)

$n'sp$  = number of responding establishments in the non-certainty employment stratum with TE 20-99 for the industry domain within each geographic domain (region)

# Questionnaires

## Overview

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There are seven types of 2015 ASPBI questionnaires which will capture data for establishments of the 18 sectors of economy. Each type of questionnaire is used by a specific sector or sectors. Each has a unique color to differentiate each type of forms. The clearance number is also indicated in the questionnaires.

ASPBI Form 1 - used by Agriculture, Forestry and Fishing (A), spot color is green with clearance number PSA-1605-01.

ASPBI Form 2 - used by Mining and Quarrying (B); Manufacturing (C), spot color is yellow with clearance number PSA-1605-02.

ASPBI Form 3 - used by Electricity, Gas, Steam and Air-conditioning Supply (D); and Water Supply; Sewerage, Waste Management and Remediation Activities (E), spot color is turquoise with clearance number PSA-1605-03.

ASPBI Form 4 - used by Construction (F), spot color is orange with clearance number PSA-1605-04.

ASPBI Form 5 - used by Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (G), spot color red with clearance number PSA-1605-05.

ASPBI Form 6 - used by Financial and Insurance Activities (K), spot color is silver with clearance number PSA-1605-06.

ASPBI Form 7 - used by Business and Services (H, I, J, L, M, N, P, Q, R, S), spot color is blue with clearance number PSA-1605-07.

## Data Collection

### Data Collection Dates

Start	End	Cycle
2016-05-02	2016-07-15	N/A

### Time Periods

Start	End	Cycle
2015-01-01		All data items except total employment

### Data Collection Mode

Distribute and collect the pre addressed questionnaire (Self Administered Questionnaire). Sample establishments are also encouraged to accomplish and submit the questionnaires online. The establishment can also access the PSA Website <<https://aspbi.psa.gov.ph>> through the unique ECN found in the address stub of the questionnaire.

### Data Collection Notes

Questionnaires will be administered by the field staff to sample establishments. The questionnaires were administered by the Provincial Staff and hired SRs to sample establishments in accordance with the timetable. Extra copies of questionnaires were brought by the enumerator in case of lost or changed form. The kind-of-activity or business (Item 2) or Income (Item 11) was checked to ensure whether the questionnaire was appropriate for the establishments at the sector level. Sample establishments were encouraged to accomplish and submit the questionnaires online. Collection date was set with respondents using acknowledgement receipt form (ESSS-ADM Form 5).

Distribution was undertaken for a period of one (1) month starting 13 April 2016 to 20 May 2016 for 2015 ASPBI. The activity was done by Provincial Staff and hired SRs, if any.

Collection was done on 2 May 2016 to 15 July 2016.

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ASPBI Form 4 - used by Construction (F), spot color is orange with clearance number PSA-1605-04.

ASPBI Form 5 - used by Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (G), spot color red with clearance number PSA-1605-05.

ASPBI Form 6 - used by Financial and Insurance Activities (K), spot color is silver with clearance number PSA-1605-06.

ASPBI Form 7 - used by Business and Services (H, I, J, L, M, N, P, Q, R, S), spot color is blue with clearance number PSA-1605-07.

## Data Collectors

Name	Abbreviation	Affiliation
Philippine Statistics Authority	PSA	National Economic and Development Authority

## Supervision

To ensure quality of data during operations, close supervision of enumeration was undertaken by RDs/PSOs/OICs/Regional and Provincial Statisticians. Central office statisticians also conducted supervision in some areas with large number of establishments.

# Data Processing

## Data Editing

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Manual processing took place in Provincial Offices at a number of stages throughout the processing, including:

- \* coding of some data items
- \* editing of questionnaires
- \* completeness of entries
- \* consistency check among variables

Data processing was done in Field Offices and Central Office.

Field Offices

- \* online data encoding and updating
- \* completeness and consistency edits
- \* folioing of questionnaires

Central Office

- \* online validation
- \* completeness and consistency checks
- \* summarization
- \* tabulation

## Data Appraisal

### **Estimates of Sampling Error**

Not Computed

### **Other forms of Data Appraisal**

Data estimates would be checked with those from other related surveys or administrative data.