

## I. ABOUT THE DATA

### A. OBJECTIVE/S OF THE SURVEY

The Occupational Wages Survey (OWS) aims to generate statistics for wage and salary administration and for wage determination in collective bargaining negotiations.

### B. USES OF THE DATA

Statistics on wage rates are useful economic indicators and are inputs to wage, income, productivity and price policies, wage fixing and collective bargaining. Specifically, occupational wage rates can be used to measure wage differentials, wage inequality in typical low wage and high wage occupations and for international comparability. Industry data on basic pay and allowance can be used to measure wage differentials across industries,, for investment decisions and as reference in periodic adjustments of minimum wages.

### C. MAIN TOPICS COVERED BY THE SURVEY

Main topics covered by the survey are occupational wage rates, median basic pay and median allowances of time-rate workers on full-time basis.

### D. REFERENCE PERIOD

Pay period that includes August 31.

### E. PERIODICITY (FREQUENCY)

Every 2 years.

### F. COVERAGE OF THE SURVEY

**Geographical:** The whole country.

**Industrial:** Non-agricultural industries except national postal activities, central banking, public administration and defense and compulsory social security, public education services, public medical, dental and other health services, activities of membership organizations, extra territorial organizations and bodies. For purposes of monitoring occupational wage rates, 46 non-agricultural industries were pre-determined out of the 65 covered by the survey.

The selection of the 46 industries were based on the Investment Priority Plan of the Board of Investments; export winners identified by the Department of Trade and Industry; areas of cooperation under the BIMP-EAGA; industries likely to be affected by GATT; industries monitored by the ILO industrial committees and similar bodies; and emerging industries as in the case of Call Center Activities; Medical Transcription and Related Outsourcing Activities, and Animated Films and Cartoons Production.

**Establishments:** Non-agricultural establishments employing 20 persons or more.

**Persons:** Time-rate workers on full-time basis.

**Occupations:** At most 11 occupations are covered in each of the 46 selected industries to represent the 7 major occupational groups in the PSOC. The occupations can be classified as supervisory; professional; technical; clerical; service; trade skills and machine operation; and laborers/unskilled workers. More occupations were drawn for a particular major occupation group depending on the relative importance of the occupations in the pre-determined industry. For instance, in mining and quarrying, selected manufacturing industries, and construction, more occupations were taken from trade skills and machine operation. In trade, postal and telecommunications and most business services, more clerical occupations were selected. In health and social work and in private education services, mostly professional workers were drawn. In hotels and restaurants, more service occupations were chosen.

The selection of the occupations across the 46 industries were based on the relative importance of the occupations in the industry and the PSOC; consultations with employers' and workers' groups, government agencies and the academe; Initial List of Indicative Offers to the Coordinating Committee on Services--General Agreement on Trade in Services (GATS ASEAN BLOC); Catalogue of the Occupational Skills Standards for National Certification Program of the Technical Education and Skills Development Authority; Occupations covered by the ILO October Inquiry on Occupational Wages and Hours of Work; 2001-2002 Key Indicators of the Labor Market of the International Labour Office; Occupational Employment Survey (OES) of the US Bureau of Labor Statistics; 2006 BLES Integrated Survey (BITS)-employment module on vital occupations; and 2007 National Human Resource Conference.

Wage rates of two (2) benchmark occupations, accounting and bookkeeping clerks; and unskilled laborers except janitors, messengers and freight handlers are monitored in all industries covered by the survey.

## G. CONCEPTS AND DEFINITIONS

**Establishment:** an economic unit engaged in one or predominantly one kind of economic activity under a single ownership or control at a single fixed location, e.g. mine, factory, store, bank, restaurant. For multi-unit enterprises with different outlets and subsidiaries or whose activities are located at different locations, each branch, outlet or subsidiary is considered an establishment. For firms engaged in activities which may be physically dispersed such as mining, construction, real estate development, transportation, communication, insurance, etc., the establishment is the base from which personnel operate to carry out their activities or from which they are paid.

**Time-rate Workers on Full-time Basis:** refer to those paid on the basis of an hour, day or month and who work at jobs with hours of work equal to or more than those considered normal or regular to the establishment.

**Wage Rates:** defined as including basic pay and regular/guaranteed cash allowances. **Basic Pay** refers to pay for normal/regular working time before deductions for employees' social security contributions and withholding taxes. It excludes overtime, night shift differential and other premium pay; commissions, tips and share of employees in service charges; and payments in kind. **Allowances** include cost of living allowance but exclude reimbursements for travel, entertainment, meals and other expenses, etc. incurred in conducting the business of the employer; cost of uniform/working clothes; bonuses and gratuities; and family allowances.

#### H. UNIT/S OF MEASUREMENT

In pesos for wage rates, median basic pay and median allowances; percentages for the distribution of time rate workers on full-time basis by basic pay and allowance intervals.

#### I. CLASSIFICATIONS

**Geographical:** The geographic classification is based on the updated 2002 Philippine Standard Geographic Classification (PSGC).

**Industrial:** The industry classification is based on the 1994 Philippine Standard Industrial Classification (PSIC) as amended. It was patterned after the International Standard Industrial Classification (ISIC), Rev. 3 of the United Nations, up to the 4-digit level, but with modifications to suit national situations and circumstances.

**Occupational:** The occupational classification is based on the Philippine Standard Occupational Classification (PSOC) 2002 update. It was patterned after the 1988 International Standard Classification of Occupations (ISCO) of the International Labour Office with modifications to suit the national context.

**Employment size:** The classification of establishments according to employment size is based on their average total employment, i.e., 20-99; 100-199; 200 and over.

#### J. SURVEY DESIGN

**Statistical unit:** The statistical unit is the establishment. Each unit is classified to an industry that reflects its main economic activity---the activity that contributes the biggest or major portion of the gross income or revenues of the establishment.

**Survey universe/Sampling frame:** The 2010 BLES Survey Sampling Frame (SSF2010) is an integrated list of establishments culled from the updated 2008 BLES Sampling Frame based on the status of establishments reported in the 2007/2008 BLES Integrated Survey (BITS) and 2008 Occupational Wages Survey. Lists of Establishments from the DOLE-National Capital Region (2009) and from Job Displacement Monitoring Reports (2008 – 2009) were also considered in preparing the 2010 frame.

**Sampling design:** The OWS is a sample survey of non-agricultural establishments employing 20 persons or more. Establishments in the sampling frame were stratified by 3-digit industry (domain) and by employment size (stratum), i.e. 20-99, 100-199 and 200 and over. However, industries observed to be heterogeneous within their 3-digit classification were further broken down at the 4, 5 or 6 digit levels. Geographical location was not considered in the stratification to allow for detailed industry groupings.

In designing the survey, the margin of error ( $e$ ) was fixed at 5%. The level of significance was set at 95%, that is,  $\alpha = 0.05$ . This means that the estimated total number of employed persons will not differ from the true number of employed persons by more than 5% (margin of error), 95% of the time (level of confidence).

The desired precision for this survey can be expressed as follows:

$$P(|y - Y| \leq e) = 1 - \alpha$$

$$P(|y - Y| \leq 0.05) = 1 - 0.05,$$

$$P(|y - Y| \leq 0.05) = 0.95$$

To compute for the sample size,  $n$ , a targeted coefficient of variation (CV) of 2.5% was used, that is,

$$\begin{aligned} n &= \frac{z_{\alpha/2}^2 CV^2}{e^2 + \frac{z_{\alpha/2}^2 CV^2}{N}} = \frac{1.96^2 (2.5)^2}{0.05^2 + \frac{1.96^2 (2.5)^2}{34,511}} \\ &= \frac{24.01}{0.0025 + \frac{24.01}{34,511}} \\ n &= 7,514 \end{aligned}$$

Sixty five (65) industry groups were considered as domains. This number is the union of industry groups covered by the Occupational Wages Survey and the BLES Integrated Survey. These surveys have common sample establishments beginning 2006 survey operations because of budgetary constraints and to facilitate delivery of questionnaires and data collection.

To ensure the precision of estimates in each domain (industries), the initial sample size was allocated in each domain using the Kish's allocation formula defined below:

$$n_h = n \left( \frac{\sqrt{\frac{1}{L^2} + IW_h^2}}{\sum_{h=1}^L \sqrt{\frac{1}{L^2} + IW_h^2}} \right)$$

where

- $n_h$  - sample size in the industry  $h$
- $n$  - initial sample size (7,514)
- $L$  - total number of domains
- $I$  - set at 0.5 to allow approximately equal allocation for each domain
- $W_h$  - population weight which is equal to  $\frac{N_h}{N}$ , where

$N_h$  is the population size for industry and  
 $N$  is the total population size

After allocating the initial sample size (7,514) to the domains, the sample size in each domain was adjusted to accommodate an expected 5% proportion of ineligible samples. Industries with employment size 200 and over were sampled with certainty. The remaining samples were then allocated to the other two strata (employment sizes: 20-99 and 100-199) proportional to the total employment in each size. A minimum of 10 samples in the cells (industry and employment size) were maintained, if possible, to accommodate expected non-responses.

**Substitution of sampling units:** There is no substitution of sampling units.

**Sample size:** For 2010 OWS, number of establishments to be covered is 6,780 of which, 5,135 were eligible units.

## K. FIELD WORK

**Data collection:** The survey is conducted in coordination with the Regional Offices (except the National Capital Region regional office) of the Department of Labor and Employment. On a project basis, employees are hired to personally deliver and retrieve the questionnaires from the establishments. In some instances, questionnaires are mailed to establishments in less accessible or conflict prone areas, in which case a self-addressed envelope is provided. The establishments may also submit the accomplished questionnaires through fax. Delivery of questionnaires starts in August of the reference year and retrieval will commence after all questionnaires have been delivered or within 10 working days from delivery to an establishment or on a date agreed upon by the contact person and the enumerator. The basic data originate from the payroll records of establishments.

To assist the respondents in classifying their job titles that may have different nomenclatures than the PSOC, an occupational sheet is inserted in the questionnaire of an establishment whose industry belongs to the 46 pre-determined industries that will be monitored on occupational wage rates. This sheet contains a list of the occupations being monitored in each of the industry and their corresponding job descriptions in accordance with the PSOC.

The occupations may vary across establishments depending on their industry classification. Establishments that fall outside the 46 industries are not given occupational sheets. However, in the event that the industry of such establishment has been misclassified in the sampling frame and it should have been provided an occupational sheet, the field staff is instructed to give the respondent the relevant occupational sheet. The two (2) occupations considered as benchmark (accounting and bookkeeping clerks; and unskilled laborers except janitors, messengers and freight handlers) and their corresponding job descriptions appear in the pertinent portion of the survey questionnaire. Wage rates of these occupations will be monitored in all industries covered by the survey.

**Survey questionnaire:** The questionnaire is made up of several parts, i.e.

*Cover page* - contains the address box for the establishment and other particulars;

*Page 2* - provides information on the survey objective, scope and uses of the data; confidentiality clause; collection authority; authorized field personnel; coverage; periodicity and reference period; concepts and definition of terms; due date; and availability of results;

*Part A: General Information* - inquires on the main economic activity and major product/s, goods or services of the establishment and total employment;

*Part B: Employment and Wage Rates of Time-Rate Workers on Full Time Basis* - inquires data on the distribution of time-rate workers on full-time basis by time unit (hourly, daily, monthly) and basic pay and allowance intervals;

*Part C: Employment and Wage Rates of Time-Rate Workers on Full Time Basis in Selected Occupations* - for each occupation covered, the establishment is asked to report the time unit of work (hourly, daily, monthly), corresponding basic pay per worker and number of full-time workers for each basic pay reported. Similar data are also asked for workers in the occupation that are given regular allowances. The total number of time-rate workers on full-time basis disaggregated by sex in each monitored occupation is likewise requested; In the 2008 round the entry/hiring rate for basic pay and allowances of each occupation are also asked;

*Part D: Certification* - this box is provided for the respondent's name and signature, position, and telephone/fax numbers and e-mail address; time spent in answering the questionnaire; comments or suggestions (on the data it provided for the survey, results of previous survey round and improvements on the design/contents of the questionnaire); participation in other government surveys conducted in 2009 to determine response burden of establishments in government surveys.

*Part E: Survey Personnel* - this portion is allocated for the names of personnel involved in collection, editing and review of each questionnaire and dates when the activities were completed; and

*Part F: Industries with Selected Occupations* - this lists the selected 46 industries whose occupational employment and wage rates are being monitored;

*Survey Results* - selected statistics from the July 2008 survey round are provided for information of the respondents.

#### L. DATA PROCESSING AND EDITING

Data are manually and electronically processed. Upon collection of accomplished questionnaires, enumerators perform field editing before leaving the establishments to ensure completeness, consistency and reasonableness of entries in accordance with the field operations manual. The forms are again checked for data consistency and completeness by their field supervisors.

The BLES personnel undertake the final review, coding of information on classifications used, data entry and validation and scrutiny of aggregated results for coherence. Questionnaires with incomplete or inconsistent entries are returned to the establishments for verification, personally or through mail.

Microsoft Access is used for data encoding and generation of validation prooflists. After checking accuracy of encoding based on the prooflists, a conversion program using SPSS is executed to generate output tables.

#### M. TYPES OF ESTIMATES

- Average monthly wage rates of time-rate workers on full-time basis in selected industries and occupations
- Average monthly wage rates of benchmark occupations in non-agricultural industries
- Percent distribution of time rate workers on full-time basis by industry (or by region) and monthly basic pay and monthly allowances
- Median monthly basic pay and median monthly allowances of time-rate workers on full-time basis by industry (or by region)

#### N. ESTIMATION/COMPILATION METHODOLOGY

Not all of the fielded questionnaires are accomplished. During data collection, there are reports of permanent closures, non-location, duplicate listing and shifts in industry and employment outside the survey coverage. Establishments that fall in these categories are not eligible elements of the frame and their count is not considered in the estimation. Non-respondents are made up of refusals, strikes or temporary closures, and those establishments whose questionnaires contain inconsistent item responses and have not replied to the verification queries by the time output table generation commences.

Respondents are post-stratified as to geographic, industry and employment size classifications. Non-respondents are retained in their classifications.

Sample values of basic pay and allowances for the monitored occupations whose basis of payment is an hour or a day are converted into a standard monthly equivalent, assuming 313 working days and 8 hours per day. Daily rate x 26.08333; Hourly rate x 208.66667.

Estimates are obtained by simple expansion, i.e. by multiplying the sample values at the cell level (industry and employment size) by the corresponding blowing-up factor which is the ratio of the estimated population of establishments to the number of responding establishments. These estimates are then aggregated to the desired totals.

Dividing the estimated total basic pay (or total allowances) in each occupation by the corresponding estimate of time rate workers on full-time basis results to the average monthly basic pay or average monthly allowances as the case may be. The monthly average basic pay and monthly average allowances are then summed up to provide the average monthly wage rates by occupation.

The median monthly basic pay is computed from the estimated distribution of workers by monthly basic pay. On the other hand, the median monthly allowance is computed only for those workers reported with allowances.

#### O. ADJUSTMENTS

**Non-response:** Non-response is taken into account in the weighing procedure.

**Other bias:** No adjustments are made.

**Use of benchmark data:** No benchmark data is used.

**Use of other surveys:** No other survey data are used.

**Seasonal variations:** Not applicable.

#### P. INDICATORS OF THE RELIABILITY OF THE ESTIMATES

**Coverage of the sampling frame:** Partially updated.

**Sampling error/Sampling variance:** Starting with the 2006 survey round, coefficients of variation on occupational wage rates were published.

**Non-response rate:** For 2010 OWS, the non-response rate in terms of eligible units is 16.2%.



**Non-sampling errors:** These may occur due to inaccuracies in reporting by establishments and enumerators, mistakes in coding, editing and data entry. However, efforts are made to reduce non-sampling errors by careful design of the questionnaire, intensive training of survey personnel, linkages with key informants (employers' and workers groups, government agencies and the academe) and through adoption and documentation of efficient operating procedures.

**Conformity with other sources:** In relation to the reference period of the OWS or a period close to it, the survey results are compared with the statistics derived from the inquiry on labor cost (a module under the BLES Integrated Survey), earnings data from the Annual Survey of Philippine Business and Industry (of the National Statistics Office) and the minimum wage rates.

**Estimates for non-survey years:** Not relevant

#### Q. HISTORY OF THE SURVEY

**Scope and Coverage:** From 1997 to the 2004 survey rounds, the OWS was a complete enumeration survey of non-agricultural establishments employing 50 persons or more. Starting the 2006 OWS, employment size cut-off was lowered to 20 persons. The 2002 OWS was limited to Metro Manila due to budget cuts.

A total of 65 industries are covered in the 2010 and 2008 OWS, up from 60 in 2006, 58 in the 2002 and 2004 rounds, 57 in 1999 and 52 in 1997 OWS. Pre-determined industries for wage monitoring now total to 46 with the addition of Call Center Activities and Medical Transcription and Related Outsourcing Activities in 2006 and Animated Films and Cartoons Production in 2008. The selected industries numbered 43 in 2002 and 2004 OWS and 41 in 1997 and 1999 rounds.

A total of 180 occupations are covered in the pre-determined industries in the 2010 and 2008 OWS rounds, from 169 in 2006, 168 in 2002 and 2004 rounds, 161 in 1999 and 1997. Starting with the 2002 survey round, wage rates of two (2) benchmark occupations, accounting and bookkeeping clerks; and unskilled laborers except janitors, messengers and freight handlers are monitored in all industries covered.

From 1989 to 1995, the OWS provided average monthly wage rates of 22 low-paying/prevalent occupations in 21 non-agricultural industries and monthly median wage rates in all major non-agricultural industries. Covering time-rate workers (in non-agricultural establishments employing at least 5 workers in 1989-1993 and those employing at least 10 workers in 1994-1995), its purpose was to provide statistics in aid to minimum wage determination.

In 1996, the OWS was re-designed to focus on the wage rates of relatively skilled occupations in industries likely to be affected by the changing global and economic structure. The survey aims to generate statistics for wage and salary administration and for wage determination in collective bargaining negotiations.

In 2001, the OWS was reviewed relative to the covered industries and occupations and reference period to enhance the relevance and timeliness of the statistics produced. At most 10 occupations will be covered in each of the selected industries. The bases for the review were the 2001-2002 Key Indicators of the Labour Market of the ILO, the list of emerging occupations reported in one of the BLES surveys, the Occupational Employment Survey of the US Bureau of Labor Statistics and consultations with the data users.

***Periodicity and Reference Period:*** The 1989-1995 OWS was conducted every semester except for the 1990 OWS, which was conducted quarterly. For occupational wage data, the reference periods were the end of each calendar quarter while for the distribution of time-rate workers, the reference periods were the end of June and December. Except for the 1994, 1995 and 1997 survey rounds whose data collection was undertaken by the National Statistics Office, the BLES handled the field operations.

For the 1997 and 1999 rounds, October was adopted as the reference period of the survey for international comparability since the Bureau of Statistics of the International Labour Office has an annual inquiry on occupational wage rates and normal hours of work where October is the reference period of the data.

Although the 1997 and 1999 survey rounds of the revised OWS had October as reference, data collection did not commence immediately after the reference point as the fiscal year of the Philippine government ends in December and data collection can only commence in the next year (March/April). Experience from past surveys of the BLES showed that data retrieval from establishments during the last months of the year is quite low or slows down for surveys whose data collection starts late in the year.

Another consideration in the shift of the reference period of the third round of the OWS from October 2001 to June 2002 was the need to capture the effects of minimum wage adjustments. A survey conducted by the BLES revealed that a substantial proportion of establishments based their wage adjustments on government fixed wages. In some instances, minimum wages were being implemented on a staggered basis. In the National Capital Region (Metro Manila) where at least half of time-rate workers are found (based on the 1999 OWS), a Wage Order mandated a staggered adjustment with effectivity dates in November 2001 and February 2002. The shift in the reference period improved the timeliness of the data from 17 to 12 months after reference period.

However, for the 2006 and 2008 survey round, the reference periods were moved to August and July respectively to take into consideration the new series of regional wage orders that took effect in July and August in 2006 and May and June in 2008. For 2010 survey round, the reference period was again moved to August to consider the series of minimum wage adjustments in July and August 2010.

The OWS is one of the designated statistical activities in E.O. 352 (s. 1996) that will generate critical data for decision making of the government and the private sector. The data category *average monthly occupational wage rates in selected occupations* is among those listed by the Philippine government under the Special Data Dissemination Standard (SDDS) of the International Monetary Fund. The SDDS serves as reference to member countries in the dissemination of economic and financial data to the public.

## R. AVAILABLE SERIES

Due to the changes in scope and coverage through the years, users are cautioned in making comparisons using the OWS data series as follows:

- 2006, 2008, 2010 (nationwide, covers non-agricultural establishments employing 20 persons or more)
- 2004 (nationwide, covers non-agricultural establishments employing 50 persons or more)
- 2002 (Metro Manila only, covers non-agricultural establishments employing 50 persons or more)
- 1994-1995 (nationwide, covers non-agricultural establishments employing 10 persons or more)
- 1989-1993 (nationwide, covers non-agricultural establishments employing 5 persons or more)

## II. DOCUMENTATION

### A. PERIODICITY OF DISSEMINATION

Starting with the 2002 OWS, the survey results are released a year after its reference period.

### B. ADVANCE RELEASE CALENDAR

An advance release calendar that gives one-quarter-ahead notice of the approximate release date is posted in the BLES Homepage.

### C. DISSEMINATION FORMATS

#### **Hard Copy**

- LABSTAT Updates; (LABSTAT Digest for October 1997 results)
- Yearbook of Labor Statistics

#### **Electronic**

- BLES Homepage: <http://www.bles.dole.gov.ph>
- BLES Electronic Archived Microdata System (BEAMS):  
<http://www.bles.dole.gov.ph/beams>
- CD-ROM (4-in-1): Philippine Industry Yearbook of Labor Statistics; Yearbook of Labor Statistics; Gender Statistics on Labor and Employment; LABSTAT Updates

### **III. CONFIDENTIALITY**

The compilation and dissemination of the data are governed by the terms and conditions of Executive Order No. 126 (January 30, 1987) creating the Bureau of Labor and Employment Statistics and Executive Order 352 (July 1, 1996) designating the OWS as one of the statistical activities critical for decision making of the government and the private sector.

While E.O. 126 is silent on the confidentiality of individual responses from surveys conducted by the BLES, it collects data under the pledge of confidentiality. A statement to this effect is printed in all the questionnaires of BLES surveys.