

# SURVEY COVERAGE AND METHODOLOGY

## OCCUPATIONAL WAGE SURVEY, 2014

### Introduction

The *Occupational Wage Survey, 2014* was conducted by the Central Provident Fund (CPF) Board, on behalf of the Ministry of Manpower, from July to December 2014. The survey was conducted under Section 76 (1) of the CPF Act (1999 Edition) which empowers the Board to collect and compile statistics relating to employers and employees.

### Objective

The survey was conducted to obtain wage statistics of a wide variety of common occupations.

### Coverage

A representative sample of private sector establishments with at least 25 employees, stratified by industry, was surveyed. The effective sample consisted of 3,800 private sector establishments, employing some 256,000 full-time resident employees who have CPF contributions in June 2014. The survey response rate was 90.5%.

### Methodology

The survey was conducted using mail questionnaires. Respondents could submit their returns online, by post, email or fax, with clarifications made over the phone.

### Reference Period

The reference period was the month of June 2014.

## **Data Collected**

Data on monthly basic and gross wages were collected. Wages for daily- and hourly-rated employees were converted to their monthly equivalent using appropriate conversion factors.

The following types of contributors were excluded from the tabulation of monthly basic and gross wages:

- Apprentices/Trainees;
- Temporary workers;
- Part-time workers;
- Piece-rated workers; and
- Workers who worked part month in the month of June 2014

In addition, employees whose pay were based on commissions were excluded for the tabulation of monthly basic wage.

Wage data by gender and age were obtained by matching the survey data with CPF Board's administrative records.

## **Classification**

The occupations of the CPF contributors and the industries of the establishments were classified according to the Singapore Standard Occupational Classification 2010 and Singapore Standard Industrial Classification 2010 respectively.

## Statistical Notes

The following should be noted when using wage data from the Occupational Wage Survey:

- As occupational wage data are based on aggregates of similar jobs, they can only serve as a guide for expected wages of individuals, given that wages are determined by prevailing market conditions and no workers and jobs are totally alike. For example, jobs may differ in scope, responsibilities, requirements and working environment and not all workers have the same skills, productivity and innate ability.
- Commonly used for salary benchmarking, data on occupational wages do not include bonuses, which are more closely linked to performance of the individual and establishment. Hence, the wages for occupations, where performance-based bonuses constitute a significant portion of total wages, would be lower than expected. Examples of such occupations are brokers, dealers and senior management staff.
- The occupational wage data may not be comparable over time, due to changes in composition within the occupational group, depending on the sample of establishments that responded to the survey. For instance, if the sample captured more lower-paying occupations within a broad occupational group, this may depress the wage level for that occupational group. Similarly, a large increase in new entrants without prior work experience into a specific occupation may weigh down the wage level for that occupation.
- The occupations of the CPF contributors were coded based on the job titles provided by their employers. This may result in lower wages for certain occupations, especially those requiring managerial or professional qualifications, when a significant number of contributors without the necessary qualifications (and earning less than their suitably qualified counterparts) were given such titles by their employers.
- The occupational wage data presented are for full-time employees only. This provides a more meaningful basis for comparison of wages across occupations.

## Concepts and Definitions

- Establishment** : An establishment refers to an economic unit that produces goods or services at a single physical location and engages in one, or predominantly one type of economic activity. Thus, each branch of a multi-branch organisation at a different location is conceptually a different establishment. However, if in practice the required statistics are centrally kept such that it is not possible to obtain separate data for each individual unit or branch, the organisation or enterprise is treated as a single reporting unit and allowed to submit a consolidated return covering all the units or branches.
- CPF Contributor** : This refers to an employee who has made CPF contributions for the month of June.
- Monthly Basic Wage** : This refers to the basic pay before deduction of employee CPF contributions and personal income tax. It excludes employer CPF contributions, bonuses, overtime payments, commissions, allowances (e.g. shift, food, housing and transport), other monetary payments and payments-in-kind.
- Monthly Gross Wage** : This refers to the sum of the basic wage, overtime payments, commissions, allowances, and other regular cash payments. It is before deduction of employee CPF contributions and personal income tax and excludes employer CPF contributions, bonuses, stock options, other lump sum payments and payments-in-kind.
- 25<sup>th</sup> Percentile Wage** : This refers to the wage level which divides the bottom 25% of wage earners from the rest.
- Median (50<sup>th</sup> Percentile) Wage** : This refers to the wage level at the middle of the wage distribution which divides the bottom half of wage earners from the upper half.
- 75<sup>th</sup> Percentile Wage** : This refers to the wage level which divides the top 25% of wage earners from the rest.

## **Reliability of Data**

In a sample survey, inferences about the target population are drawn from the data collected from the sample. As such, differences between the published estimate and the value that would have been produced if the entire population had been surveyed can be expected. Factors influencing the magnitude of this difference include the sample size, the sample design, method of estimation, the variability of the population and the characteristics studied. As a general rule, the smaller the sample from which an estimate is derived, the larger we might expect the magnitude of this difference to be.

The number of employees covered by the survey for each published occupation has been made available under the column "Number Covered". Data users can take this coverage into consideration in assessing whether the estimate is reliable for their intended purpose.