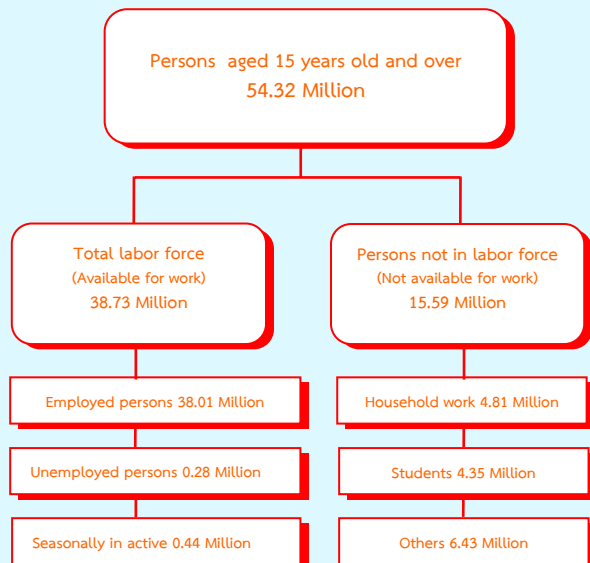


# EXECUTIVE SUMMARY

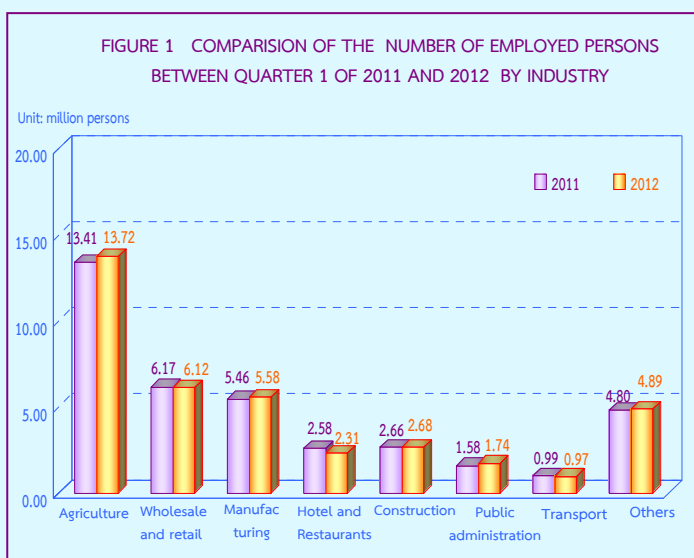
## LABOR FORCE SURVEY IN THE 1<sup>st</sup> QUARTER OF 2012

### NUMBER OF POPULATION BY LABOR FORCE THE LABOR FORCE SURVEY , QUARTER 1 : 2012



Some major findings from the 1<sup>st</sup> Quarter of the 2012 Labor Force Survey showed that there were 54.32 million people, aged 15 years and over, of these, 38.73 million were in the labor force (38.01 million were employed, 0.28 million were unemployed and 0.44 million were seasonally inactive labor force) and 15.59 million persons were not in the labor force.

Comparing to the same period of 2011, the number of persons employed increased by 0.36 million persons. (from 37.65 million to 38.01 million) or about 1.0%. It was found that the number of employed persons in agriculture sector increased by 0.31 million (from 13.41 million to 13.72 million). Those in non – agriculture sector increased by 50 thousand persons. (from 24.24 million to 24.29 million). This increment was found in various industries, such as Public administration about 0.16 million, Manufacturing about 0.12 million and Construction about 20 thousand persons.



Comparing level of educational attainment of the employed persons to the same period of 2011, it was found that the number of employed persons with elementary level increased by 0.42 million persons, followed by higher level increased by 0.26 million. Upper secondary level rose by 0.23 million persons. However, employed persons with no education and with less than elementary and lower secondary level decreased by 0.48 million and 70 thousand persons respectively.

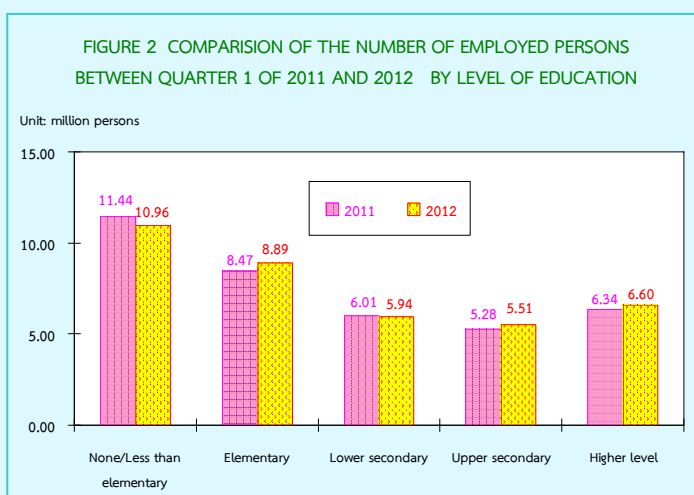
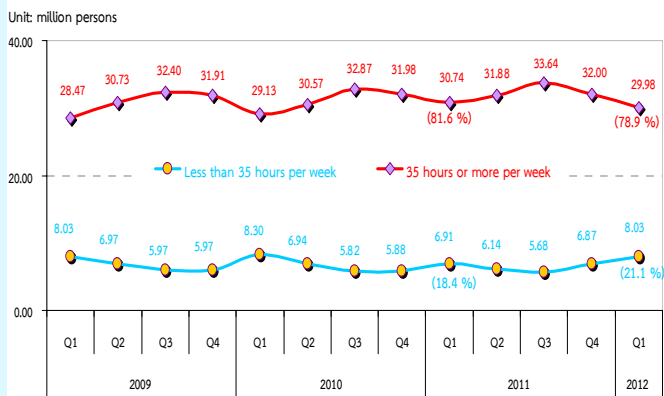


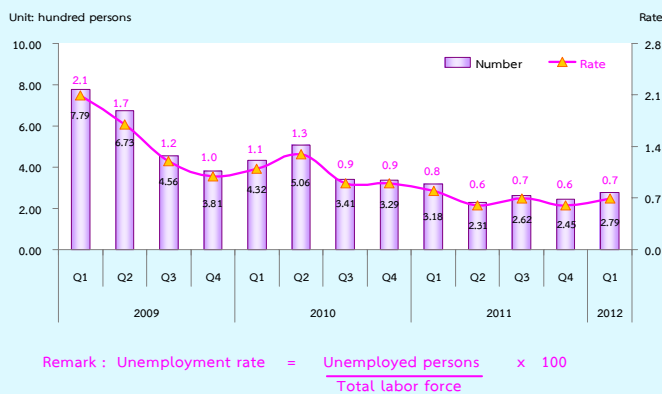
FIGURE 3 THE NUMBER OF EMPLOYED PERSONS  
OF 2009 TO 2012 BY HOURS WORKED



Regarding working hours per day, results of the 1<sup>st</sup> Quarter showed that about 29.98 million persons or 78.9% of the total employed persons worked more than 35 hours per week. On the other word, about 8.03 million persons or 21.1% of the total employed persons worked less than 35 hours per week.

Comparing to the same period of 2011, statistics showed that full time worker (working more than 35 hours per week) decreased around 0.76 million persons but those were part time (working less than 35 hours per week) increased, of about 1.12 million persons.

FIGURE 4 THE NUMBER OF UNEMPLOYED PERSONS  
AND UNEMPLOYMENT RATE OF 2009 TO 2012



From the 1<sup>st</sup> quarter of 2012, there were 0.28 million or 0.7% of unemployed persons. Comparing to the same period of last year, the number of unemployed persons decreased by 40 thousand persons (from 0.32 million to 0.28 million). Considering by age group, it is noticeable that there were 0.13 million or 2.7% found in a teenager group (15-24 years old) and 0.15 million or 0.4% in adult group (25 years and over). Comparing to the same period of 2011 the number of unemployed persons decreased by 30 thousand persons (from 0.16 million to 0.13 million), in the teenagers'. The adult group decreased by 10 thousand persons (from 0.16 million to 0.15 million).

FIGURE 5 UNEMPLOYMENT RATE OF 2009 TO 2012  
BY AGE GROUP

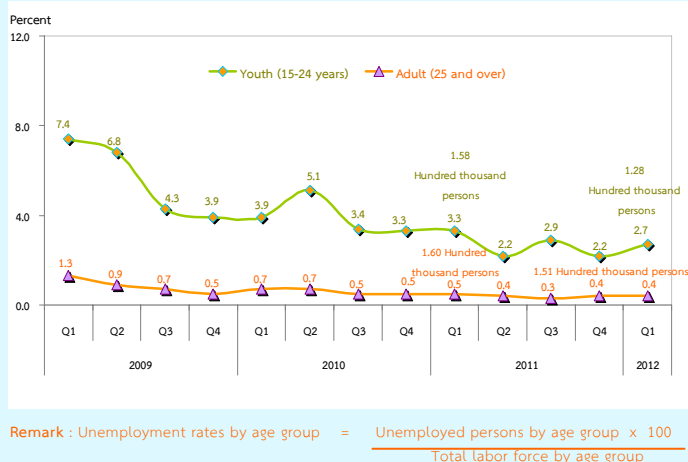
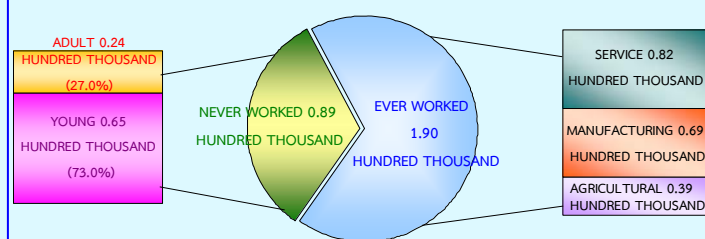
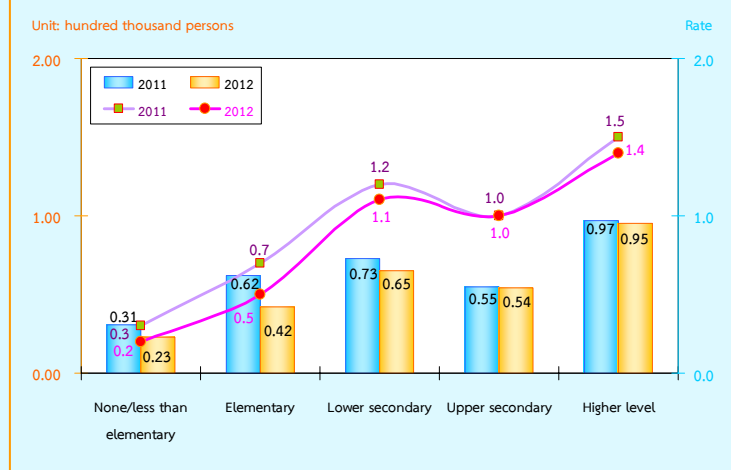


FIGURE 6 NUMBER OF UNEMPLOYED PERSONS BY EXPERIENCE OF WORK QUARTER 1 : 2012



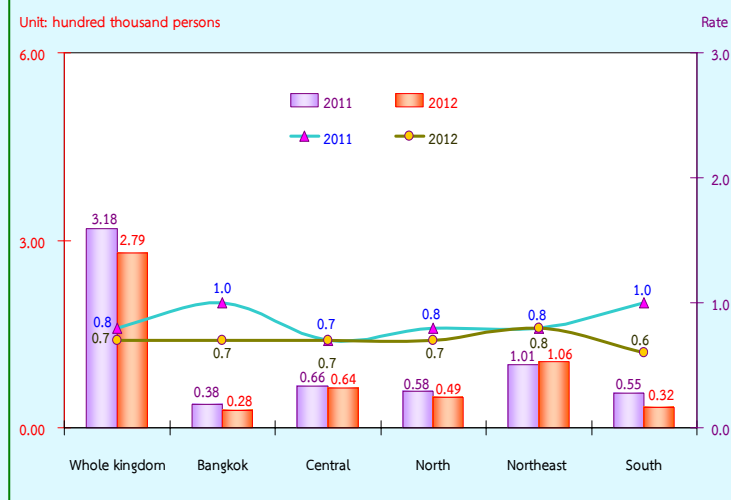
Concerning work experience of unemployed persons, about 89 thousand persons out of 0.28 million, had no experience in work, with these 65 thousand persons were from the teenager group, and 24 thousand persons from the adult group, about 0.19 million of unemployed persons have ever worked. Looking at the distribution of unemployed persons, about 82 thousand were from the service sector, 69 thousand persons, were from manufacturing and the least, of about 39 thousand were from agriculture sector.

FIGURE 7 COMPARISON NUMBER AND UNEMPLOYMENT RATES BY LEVEL OF EDUCATION, BETWEEN QUARTER 1 OF 2011 AND 2012



Data of the 1<sup>st</sup> Quarter showed that the higher level of education attainment, the higher number of unemployed, it is clearly seen that 95 thousand persons with the highest level of educational attainment were unemployed, followed by 65 thousand persons, with lower secondary and 54 thousand persons, with upper secondary level. Unemployed persons with elementary level were about 42 thousand persons and around 23 thousand persons with no education and with less than elementary.

FIGURE 8 COMPARISON OF THE NUMBER AND UNEMPLOYMENT RATES BY REGION, BETWEEN QUARTER 1 OF 2011 AND 2012



Comparing the number of unemployment by region with the same period of last year, it showed that the number of unemployed persons of most regions decreased, in the South decreased by 23 thousand persons, Bangkok by 10 thousand persons, the North by 9 thousand persons and the smallest number was in the Central by 2 thousand persons. It is notable that only in the Northeast the number of unemployed increased by 5 thousand persons.

In sum, the results of the 1<sup>st</sup> Quarter of the 2012 Labor Force Survey revealed that the over all unemployment rates decreased by 0.1 (from 0.8% to 0.7%). A decrease appeared in most of the regions; the South by 0.4 (from 1.0% to 0.6%), Bangkok by 0.3 (from 1.0% to 0.7%) and the North by 0.1 (from 0.8% to 0.7%), while the unemployment rate did not change in the Central and the Northeast.

# CHAPTER 1

## INTRODUCTION

### 1. Background and objective

Labor force statistics have been compiled by the National Statistical Office since 1963 when the survey was initiated. The year 1984-1997 three rounds of the survey for the whole kingdom had been conducted each year; the first round enumeration is held in February coinciding with the non-agricultural season, the second round is normally held in May in with new labor force come from students who just finish their schooling and the third round is held in August, during the agricultural season. Commencing from the year 1998, another round of the survey in November has been conducted.

Due to the increasing demand of data for formulating plans and policy at provincial level, the National Statistical Office has expanded sample size to propose statistical data at provincial level commencing from survey in February and August, 1994. For the fourth round in November 1998, data was presented at the first time and presentation data at provincial level.

After the economic crisis in the mid of 1997, the need of labor force data for planning and policy making were more in demand. In the year of 2001, the survey was conducted monthly. The survey data of three months were combined to present the quarterly. Data of February, May and August were presented in order to compare

with the previous labor force survey and since September 2001, data were presented monthly. Beginning from the survey in January 2001, 5 items has been revised; age of persons in labor force was adopted from 13 years of age and over to 15 years of age and over in order to agree with the child labor law. The standard classification of occupation, industry and employment status were adopted, and area of local administration which the former sanitary which were included in non-municipal area were presently included in municipal area.

The main objective of this survey is to estimate the number and characteristics of the labor force in the country and in different regions periodically. The statistical data derived from this quarter of the survey include:

1. the number of persons in and out of the working age (15 years and over) by sex
2. the number of working age population by labor force status, age, sex, marital status, educational attainment
3. the number of employed persons by interesting characteristics such as age, sex, educational attainment, occupation, industry, work status, hours work,
4. the number of unemployed persons by interesting characteristics e.g.

duration of searching for job, type of previous work.

## 2. Coverage

Population reside in the private and special household.

## 3. Reference week

Reference week refer to seven days before the interviewing date for example if the interviewing date was February 9, 2004 “ during 7 days before interviewing date “ was during February 2<sup>nd</sup> - 8<sup>th</sup>, 2004.

## 4. Definition

The National Statistical Office has adapted and changed the concepts and definitions used in the Labor Force Survey (LFS) Project many times since the initial year. The purposes of changes were to improve the completeness of the collected data with respect to the real socio-economic situation of the country and to serve for users requirement. In this report, the concepts and definitions used have been introduced since 1983 and some definitions together with the minimum age limit which have been changed to 15 years is adopted since 2001.

**The revised definitions used in the survey are listed in following.**

### Employed persons

Persons, 15 years of age and over who during the survey week,

1. worked for at least one hour for wages/salary, profits, dividends or any other kind of payment, in kind; or
2. did not work at all or worked less than one hour but

2.1 receives wage/salary, profits from business enterprise or farm during the period of absence; or

2.2 not receive wage/salary, profits from business enterprise or farm during the period of absence but had regular jobs or business that they would be return to work.

3. worked for at least one hour without pay in business enterprises or on farms owned or operated by household heads or members.

### Unemployed persons

Persons, 15 years of age and over who during the survey week did not work even for one hour, had no jobs, business enterprise or farms of their own.

Persons in this category include :

1. those who had been looking for work, applying for a job or waiting to be call to work during the last 30 days before interview's date.
2. those who had not been looking for work during the last 30 days before interview's date but available for work during the last 7 days before interview's date.

### Current labor force

All persons 15 years of age and over who, during the survey week, were either employed or unemployed as defined above.

### Seasonally inactive labor force

Persons 15 years of age and over, who during the survey week, were neither employed nor unemployed as defined

above, but were waiting for the appropriate season, being persons who usually worked without pay on farms, or in business enterprises engaged in seasonal activities owned or operated by the head of the household or any other member of the household.

### Total labor force

All persons 15 years of age and over, who during the survey week, were in the current labor force as defined above or were classified as seasonally inactive labor force as defined above.

### Persons not in the labor force

Persons classified in this category are those who were neither employed nor unemployed during the survey week, nor classified as seasonally inactive labor force as defined above. They include:

1. persons who, during the survey week were 15 years of age and over, but were neither employed nor available for employment because they were

1.1 engaged in household work,

1.2 engaged in studies

1.3 too young (below 18 years of age) or too old (above 60 years of age)

1.4 incapable of work because of physical or mental disability or chronic illness,

1.5 voluntarily idle,

1.6 working without pay, profits, dividends or other payments for persons who were not members of the same household,

1.7 working without pay, profits, dividends or any other payments for charitable organizations and institutions,

1.8 otherwise not available for employment.

### Job

A job is defined as any of the following:

1. Work for cash wages, salaries or for pay "in kind," or

2. Work for profit on own farm or in own or partly own business, or

3. Work without pay or profit on a farm or in a business owned or operated by the head or any member of the household.

### Occupation

Occupation refers to the kind of work performed by a person at his job. Most persons generally hold only one job. For a person having more than one job, only the job at which he worked for the greater number of hours during the survey week was recorded. If the number of working hours for each job was exactly the same, the job which gave him the higher income was recorded. If the number of working hours and the income earned from each job were the same, the job for which he had preference was recorded. If the respondent could not give his preference, the job at which he had been working for the longest time was the one recorded.

Before 2010, the survey used the classification which was suitable to Thailand's occupation based on International Standard Classification of Occupation, 1988 (ISCO-88). Since January 2011, the survey used International Standard Classification of Occupation, 2008 (ISCO-08) of the International Labor Organization (ILO).

## Industry

The term "industry" as herein used refers to the nature of economic activity undertaken in the establishment in which a person worked or the nature of business in which he was engaged during the survey week. If a person had more than one job, the industry corresponding to the occupation recorded was asked.

Before 2010, the survey used the classification which was suitable to Thailand's industry based on International Standard Industrial Classification, (ISIC) 1989. Since January 2011, the survey used the third revision of the Thailand Standard Industrial Classification, (TSIC) 2009.

## Work status

Work status refers to the status of person's occupation in the survey week. Work status was classified as follows :

1. An employer is defined as a person who operates his own enterprise for profit or dividends and hires one or more employees in his enterprise.

2. A government employee is defined as a person who works for pay in a government agency or government enterprise. Included in this category, therefore are civil servants, police, enterprise owned and operated by an employer.

3. A private employee is a person who works for pay a non-governmental municipal officers, and employees or government enterprises.

4. An own account worker is a person who operated an enterprise on his own account or jointly with others in the

form of a partnership either for profit or dividends but without engaging any employees.

5. An unpaid family worker is a person who works without pay on a farm or in a business enterprise owned or operated by the household head or any other member.

6. A member of a producers' cooperative is a person who hold a "self-employment" job in a cooperative producing goods and services, in which each member takes part on an equal footing with other members in determining the organization of production, sales and/or other work of the establishment, the investments and the distribution of the proceeds of the establishment amongst their members.

Since January 2001, the survey used the International Classification of Status in Employment, 1993 (ICSE-93) of the International Labor Organization (ILO) which add one more status to those used in the previous year, that is a member of a producers' cooperative.

## Hours worked

Hours worked mean hours actually worked during the survey week. For a person holding more than one job, his hours worked would be the sum total of hours worked on all jobs. For a person who had a regular job but was not at work during the survey week, the hours worked would be recorded zero. Before 2001, for a person who had a regular job but was not at work during the survey week, the number of

hours normally worked in a week is taken as the hours worked

### **Wage or salary**

Wages or salaries mean basic wages or salaries payable for the specified time or piece of work, not including overtime payments, bonuses or other fringe benefits.

### **Duration of looking for work**

Duration of looking for work is the length of time during which an unemployed person had been looking for work. It is counted from the day he started looking for work to the end of the survey week.

### **Survey week**

A survey week is the reference period of last 7 days before interview's date which information on labor was obtained.

### **Enumeration period**

The enumeration period is the 1<sup>st</sup>-12<sup>th</sup> for each month which actual interviews were conducted.

### **Types of households included in the survey**

Households included in the scope of the survey can be divided into two types:

1. Private households which include one person household, i.e. single persons who make provision for their own food or other essentials of living without combining with any other persons, or multi person households, i.e. groups of two or more persons making common provision for food or other essentials for living, residing in any of the following types of housing: wooden dwellings, cement dwellings, row houses, apartments, boats, rafts, etc.

2. Special households which include persons living in group living quarters within the compound of a factory, or in a dormitory, or boarding house which is not exclusively for students.

Household not included in the above mentioned types, e.g. inmates of penal institutions, priests, soldiers living in military barracks, students living in dormitories, etc., were classified as institutional households and not covered in the survey.

### **Level of educational attainment**

Educational levels are classified as follows:

**1. None** means all persons who have never attended school or had no education.

**2. Less than elementary** means all persons who have completed a grade lower than Pratom 6 (or formerly Pratom 7 or Matayom 3).

**3. Elementary level** means all persons who have completed Pratom 6 (or formerly Pratom 7 or Matayom 3) or higher but not lower secondary level.

**4. Lower secondary level** means all persons who have completed Matayom 3 (formerly Matayomsuksa 3 or Matayom 6) or higher but not upper secondary level.

#### **5. Upper secondary level**

**5.1 Academic** means all persons who completed Matayom 6 (formerly Matayomsuksa 5 or Matayom 8) in general education schools or completed higher but not higher level.



**5.2 Vocational and technical** means all persons who have completed a lower secondary and have then completed the three year course required for this level in vocational and technical colleges or completed higher but not higher level.

**5.3 Teacher training** means all persons who have completed the teacher training course and receiving a certificate equivalent

to upper secondary level or completed higher but not higher level.

## **6. Higher level**

**6.1 Academic** means all persons who completed a course receiving academic diploma, bachelor, master and doctoral degree level.

**6.2 Higher technical education** means all persons who completed vocational or technical education, and receiving

vocational diploma and the degree of bachelor.

**6.3 Teacher training** means all persons who completed a course receiving educational diploma, bachelor, master and doctoral degree level.

**7. Short course vocational training** means all persons who have completed a vocational course of less than twelve months duration and have received a certificate or other document certifying completion of such a course. The educational requirements for persons taking such courses vary, but the minimum requirements are completion of at least grade 4 (Pratom 4) or the equivalent.

**8. Other** means all persons who have completed types of education other than the aforementioned.

## CHAPTER 2

### MAJOR FINDINGS

This chapter presents a summary of the results of the labor force survey conducted nation-wide during the 1-12 of January - March 2012 which is the first quarter of the year. The results obtained from this survey showed the number of employed, unemployed and interesting characteristics of the labor force during January - March 2012.

The number of population base used in the estimation procedure was changed from the survey round 1 in February, 1995 to the new series of Population Projection for Thailand, 1990-2020 which was revised by Quality of Life and Social Development Office, National Economic and Social Development Board in May 2003.

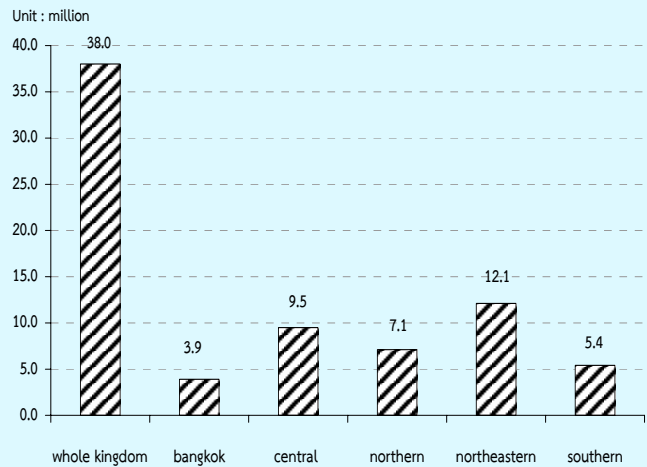
#### 1. Structure of the labor force

The total estimated population of about 38.7 million, were in the labor force. Of these, about 65.9% were residing in non-municipal areas and about 54.7% were males.

The “current labor force”, that is the currently active; either employed or was available for employment during January - March 2012, was about 38.3 million. Since

the survey period was in the agricultural season, the number of the seasonally inactive labor force was about 441,800 persons. This number will increase when the survey is conducted in non-agricultural season.

FIGURE 1 NUMBER OF EMPLOYED PERSONS BY REGION



The current labor force was largely employed, however around 0.7% or about 0.28 million were unemployed. Of these, 0.1% were looking for jobs and the rest 0.6% were not, but available for work.

There were about 15.6 million persons, aged 15 years and over or 28.7% not in the labor force. With these, about 4.8 million were housewives, 4.4 million were students and 4.7 million were children/older/ill or disable people.

TABLE A NUMBER AND PERCENTAGE OF POPULATION BY LABOR FORCE STATUS, AREA AND SEX

LABOR FORCE STATUS	Whole kingdom			Municipal areas			Non - municipal areas		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Number ('000)									
Persons over 15 years	54,322.3	26,392.4	27,929.9	18,812.4	8,895.6	9,916.8	35,509.9	17,496.8	18,013.1
Total labor force	38,729.3	21,169.8	17,559.5	13,189.7	6,950.2	6,239.5	25,539.6	14,219.5	11,320.1
1.Current labor force	38,287.5	20,947.4	17,340.1	13,125.9	6,919.5	6,206.3	25,161.7	14,027.9	11,133.8
1.1 Employed	38,008.4	20,779.4	17,229.0	13,034.5	6,863.5	6,171.0	24,973.9	13,915.9	11,058.0
1) At work	37,217.9	20,279.2	16,938.7	12,901.3	6,781.7	6,119.5	24,316.7	13,497.5	10,819.2
2) With job but not at work	790.4	500.2	290.3	133.2	81.8	51.4	657.2	418.4	238.9
1.2 Unemployed	279.2	168.0	111.1	91.4	56.0	35.4	187.8	112.0	75.8
1) Looking for a job	44.1	27.0	17.1	16.6	9.9	6.8	27.5	17.2	10.3
2) Not looking /Available for work	235.0	141.0	94.0	74.8	46.2	28.6	160.3	94.8	65.4
2.Seasonally inactive labor force	441.8	222.4	219.4	63.8	30.7	33.1	377.9	191.7	186.3
Not in labor force > 15 years of age	15,593.0	5,222.7	10,370.4	5,622.7	1,945.4	3,677.4	9,970.3	3,277.3	6,693.0
1. Household work	4,807.0	251.3	4,555.7	1,658.6	86.0	1,572.6	3,148.4	165.3	2,983.1
2. Studies	4,356.5	2,053.2	2,303.3	1,667.9	788.8	879.1	2,688.6	1,264.4	1,424.2
3. Too young/old or incapable to	4,723.7	1,986.0	2,737.7	1,541.1	633.1	908.0	3,182.6	1,352.9	1,829.7
4. Others	1,705.9	932.3	773.6	755.1	437.5	317.6	950.7	494.8	456.0
Percentage									
Persons over 15 years	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total labor force	71.3	80.2	62.9	70.1	78.1	62.9	71.9	81.3	62.8
1.Current labor force	70.5	79.4	62.1	69.8	77.8	62.6	70.9	80.2	61.8
1.1 Employed	70.0	78.7	61.7	69.3	77.2	62.2	70.3	79.5	61.4
1) At work	68.5	76.8	60.7	68.6	76.2	61.7	68.5	77.1	60.1
2) With job but not at work	1.5	1.9	1.0	0.7	0.9	0.5	1.9	2.4	1.3
1.2 Unemployed	0.5	0.6	0.4	0.5	0.6	0.4	0.5	0.6	0.4
1) Looking for a job	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2) Not looking /Available for work	0.4	0.5	0.3	0.4	0.5	0.3	0.5	0.5	0.4
2.Seasonally inactive labor force	0.8	0.8	0.8	0.3	0.4	0.3	1.1	1.1	1.0
Not in labor force > 15 years of age	28.7	19.8	37.1	29.9	21.9	37.1	28.1	18.7	37.2
1. Household work	8.9	1.0	16.3	8.8	1.0	15.9	8.9	0.9	16.6
2. Studies	8.0	7.8	8.3	8.9	8.9	8.9	7.6	7.2	7.9
3. Too young/old or incapable to	8.7	7.5	9.8	8.2	7.1	9.2	9.0	7.7	10.2
4. Others	3.1	3.5	2.8	4.0	4.9	3.2	2.7	2.8	2.5

TABLE B NUMBER AND PERCENTAGE OF POPULATION BY LABOR FORCE STATUS, SEX, REGION AND AREA

Labor Force Status and Sex		Whole Kingdom			Bangkok	Central Region			Northern Region			Northeastern Region			Southern Region		
		Total	M.A.	Non-M.A.		Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.
Number ('000)																	
Total		54,322.3	18,812.4	35,509.9	5,612.7	13,091.6	4,840.9	8,250.7	10,081.7	2,692.9	7,388.8	18,206.4	3,622.5	14,583.9	7,330.1	2,043.6	5,286.4
In the labor force		38,729.3	13,189.7	25,539.6	3,933.0	9,580.0	3,478.9	6,101.1	7,240.2	1,844.0	5,396.3	12,578.0	2,485.7	10,092.3	5,398.1	1,448.2	3,949.9
Not in the labor force over 15 years		15,593.0	5,622.7	9,970.3	1,679.7	3,511.6	1,362.0	2,149.6	2,841.5	848.9	1,992.6	5,628.4	1,136.7	4,491.6	1,931.9	595.4	1,336.5
Male		26,392.4	8,895.6	17,496.8	2,550.5	6,308.0	2,309.5	3,998.5	4,937.5	1,289.8	3,647.7	8,989.5	1,761.7	7,227.8	3,606.9	984.1	2,622.8
In the labor force		21,169.8	6,950.2	14,219.5	2,004.0	5,099.5	1,835.9	3,263.6	3,950.0	977.7	2,972.3	7,132.2	1,351.0	5,781.2	2,984.1	781.6	2,202.5
Not in the labor force over 15 years		5,222.7	1,945.4	3,277.3	546.5	1,208.5	473.6	734.9	987.5	312.1	675.4	1,857.4	410.7	1,446.7	622.8	202.5	420.3
Female		27,929.9	9,916.8	18,013.1	3,062.1	6,783.5	2,531.3	4,252.2	5,144.2	1,403.1	3,741.1	9,216.8	1,860.7	7,356.1	3,723.2	1,059.5	2,663.6
In the labor force		17,559.5	6,239.5	11,320.1	1,929.0	4,480.5	1,643.0	2,837.5	3,290.2	866.3	2,424.0	5,445.8	1,134.7	4,311.1	2,414.0	666.6	1,747.5
Not in the labor force over 15 years		10,370.4	3,677.4	6,693.0	1,133.2	2,303.0	888.4	1,414.7	1,854.0	536.8	1,317.2	3,771.0	726.0	3,045.0	1,309.1	393.0	916.2
Percentage																	
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In the labor force		71.3	70.1	71.9	70.1	73.2	71.9	74.0	71.8	68.5	73.0	69.1	68.6	69.2	73.6	70.9	74.7
Not in the labor force over 15 years		28.7	29.9	28.1	29.9	26.8	28.1	26.1	28.2	31.5	27.0	30.9	31.4	30.8	26.4	29.1	25.3
Male		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In the labor force		80.2	78.1	81.3	78.6	80.8	79.5	81.6	80.0	75.8	81.5	79.3	76.7	80.0	82.7	79.4	84.0
Not in the labor force over 15 years		19.8	21.9	18.7	21.4	19.2	20.5	18.4	20.0	24.2	18.5	20.7	23.3	20.0	17.3	20.6	16.0
Female		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In the labor force		62.9	62.9	62.8	63.0	66.1	64.9	66.7	64.0	61.7	64.8	59.1	61.0	58.6	64.8	62.9	65.6
Not in the labor force over 15 years		37.1	37.1	37.2	37.0	34.0	35.1	33.3	36.0	38.3	35.2	40.9	39.0	41.4	35.2	37.1	34.4

## 2. Labor force participation

Table C shows the labor force participation rate, which was 71.3%. The participation rate was defined as the percentage of the population in the total labor force to the population 15 years

and over. It was observed the participation rate in non-municipal areas was higher than the municipal areas (71.9% compared with 70.1%).

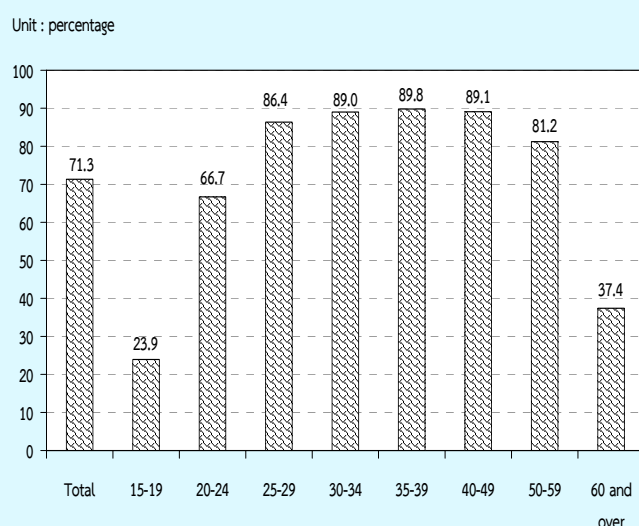
**TABLE C LABOR FORCE PARTICIPATION RATES BY AGE GROUP, SEX, REGION AND AREA**

(Percentage)

Age group (Years) and sex	Whole kingdom			Bangkok	Central region			Northern region			Northeastern region			Southern region		
	Total	M.A.	Non- M.A.		Total	M.A.	Non- M.A.	Total	M.A.	Non- M.A.	Total	M.A.	Non- M.A.	Total	M.A.	Non- M.A.
<b>Total</b>	<b>71.3</b>	<b>70.1</b>	<b>71.9</b>	<b>70.1</b>	<b>73.2</b>	<b>71.9</b>	<b>74.0</b>	<b>71.8</b>	<b>68.5</b>	<b>73.0</b>	<b>69.1</b>	<b>68.6</b>	<b>69.2</b>	<b>73.6</b>	<b>70.9</b>	<b>74.7</b>
15-19	23.9	19.6	25.9	17.3	26.5	23.7	27.9	24.1	15.7	27.1	21.7	18.6	22.4	28.4	21.8	30.9
20-24	66.7	58.7	70.3	51.8	71.2	67.4	73.3	66.0	49.8	71.8	64.9	56.4	67.0	70.9	66.0	72.7
25-29	86.4	88.5	85.4	88.7	88.9	90.0	88.3	87.4	88.1	87.2	83.5	86.5	82.8	86.5	88.6	85.7
30-34	89.0	90.6	88.0	91.7	91.6	91.4	91.8	88.6	90.3	88.0	85.6	88.4	84.9	89.6	89.0	89.8
35-39	89.8	89.9	89.8	89.3	91.5	90.3	92.2	91.1	91.0	91.1	87.8	90.0	87.3	90.3	89.5	90.7
40-49	89.1	88.3	89.5	87.6	89.5	88.3	90.2	92.0	90.2	92.7	87.0	88.9	86.6	90.7	87.5	92.0
50-59	81.2	78.2	82.9	73.9	79.9	77.6	81.2	84.1	81.3	85.2	81.5	81.7	81.4	85.1	82.8	86.0
60 and over	37.4	31.0	40.7	22.9	35.8	30.7	38.6	38.2	35.8	39.0	39.7	36.0	40.6	44.4	37.6	47.1
<b>Male</b>	<b>80.2</b>	<b>78.1</b>	<b>81.3</b>	<b>78.6</b>	<b>80.8</b>	<b>79.5</b>	<b>81.6</b>	<b>80.0</b>	<b>75.8</b>	<b>81.5</b>	<b>79.3</b>	<b>76.7</b>	<b>80.0</b>	<b>82.7</b>	<b>79.4</b>	<b>84.0</b>
15-19	31.4	25.1	34.2	21.6	33.1	29.8	34.8	32.5	20.0	36.8	29.0	24.4	30.1	37.9	28.5	41.4
20-24	77.2	65.0	82.4	56.8	77.5	72.3	80.3	76.7	57.4	83.3	78.6	64.4	82.0	81.4	71.9	84.9
25-29	93.6	93.3	93.8	92.3	94.6	94.1	94.9	95.9	92.9	96.9	91.3	91.9	91.2	95.4	95.9	95.2
30-34	95.0	96.6	94.0	97.1	96.9	97.1	96.8	95.5	96.8	95.1	91.1	93.9	90.4	97.7	98.3	97.5
35-39	95.6	96.5	95.1	96.7	96.7	97.0	96.6	95.4	95.2	95.5	93.6	95.0	93.3	97.7	98.2	97.5
40-49	96.5	96.3	96.6	96.3	96.7	96.2	97.1	97.0	97.0	97.0	95.8	95.9	95.7	97.1	96.0	97.6
50-59	91.9	89.5	93.1	87.5	90.0	87.1	91.7	92.5	91.2	92.9	93.4	92.3	93.6	94.3	93.7	94.5
60 and over	49.6	40.8	54.0	32.4	44.5	39.6	47.2	49.2	44.9	50.7	55.6	47.8	57.5	55.9	46.3	59.5
<b>Female</b>	<b>62.9</b>	<b>62.9</b>	<b>62.8</b>	<b>63.0</b>	<b>66.1</b>	<b>64.9</b>	<b>66.7</b>	<b>64.0</b>	<b>61.7</b>	<b>64.8</b>	<b>59.1</b>	<b>61.0</b>	<b>58.6</b>	<b>64.8</b>	<b>62.9</b>	<b>65.6</b>
15-19	16.1	14.1	17.0	13.1	19.6	17.6	20.7	15.2	11.3	16.6	14.0	12.7	14.4	18.3	15.0	19.6
20-24	55.8	52.5	57.3	47.4	64.7	62.6	65.9	54.6	41.9	59.3	50.5	48.2	51.1	59.6	60.0	59.4
25-29	78.9	83.9	76.4	85.6	83.3	86.1	81.7	78.4	83.4	76.6	75.1	80.8	73.6	77.2	81.2	75.6
30-34	82.9	85.0	81.6	87.2	86.3	85.8	86.6	81.4	83.9	80.4	79.7	82.6	78.9	81.3	80.0	81.8
35-39	84.2	83.9	84.4	83.1	86.3	83.8	88.0	86.7	87.0	86.6	82.1	85.1	81.3	83.2	81.4	83.9
40-49	82.2	81.3	82.7	80.2	82.8	81.0	83.9	87.4	84.2	88.6	78.7	82.3	77.8	84.5	79.7	86.5
50-59	71.5	68.4	73.3	62.4	70.8	69.2	71.8	76.4	72.4	77.9	70.2	72.0	69.8	76.5	73.0	77.9
60 and over	27.8	23.6	30.1	15.9	29.3	24.1	32.1	29.2	28.7	29.4	26.9	26.6	26.9	35.4	31.0	37.2

The participation rates were relatively high in most aged-group, except the student group, aged 15-19 years, however they could also help family in their own account business. Particularly, agriculture households with farming business residing in non-municipal area. It was observed that higher participation rate in non-municipal areas than in municipal areas, where students mostly study only .

**FIGURE 2 LABOR FORCE PARTICIPATION RATES BY AGE GROUP (YEARS)**



Considering sex differentials, it is found that males participated in the labor force more than females (80.2% and 62.9% respectively) . It was true in both areas and in every region.

Table D presents the participation rates with marital status, the divorced participated in the labor force with the highest rate (80.7%). Male with married status and female with divorced status participated in labour force with highest rate of 89.3% and 76.4% respectively. Considering by area, male with married status in municipal participated in the labour force lower than those of in non-municipal area (87.0% and 90.5% respectively) while female with divorced status in both areas had the same rates of participation. (Exculding the smallest number of unknown current marital status).

**TABLE D LABOR FORCE PARTICIPATION RATES BY MARITAL STATUS, SEX AND AREA**

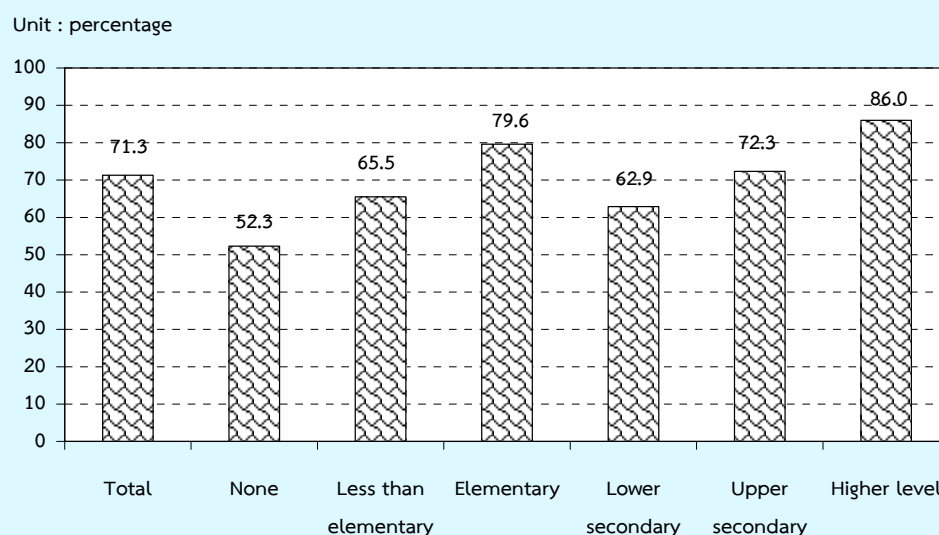
(Percentage)

Area and sex	Total	Marital status					
		Single	Married	Widowed	Divorced	Separated	Married do not know status
Total	71.3	58.8	80.0	36.4	80.7	79.6	76.6
Male	80.2	64.7	89.3	40.8	86.8	86.7	70.5
Female	62.9	50.9	71.1	35.3	76.4	74.8	81.4
Municipal areas	70.1	61.3	78.2	34.7	78.6	76.6	69.5
Male	78.1	64.5	87.0	37.6	82.6	83.9	57.5
Female	62.9	57.8	69.7	34.0	76.4	72.5	78.9
Non-municipal areas	71.9	57.1	80.9	37.2	81.9	81.5	92.7
Male	81.3	64.8	90.5	42.2	88.9	88.2	100.0
Female	62.8	45.2	71.8	35.8	76.5	76.4	87.0

Table E illustrates the participation rates by educational attainment, area and sex. It shows that persons with higher education, primary education and upper secondary education were in labour force. Those who completed lower than elementary level and lower secondary level seemed to be still in school and taking up employment.

The participation rates in non-municipal areas were mostly higher than in municipal areas, except upper secondary level (Vocational).

**FIGURE 3 LABOR FORCE PARTICIPATION RATES BY LEVEL OF EDUCATIONAL ATTAINMENT**



**TABLE E LABOR FORCE PARTICIPATION RATES BY LEVEL OF EDUCATIONAL ATTAINMENT, AREA AND SEX**

(Percentage)

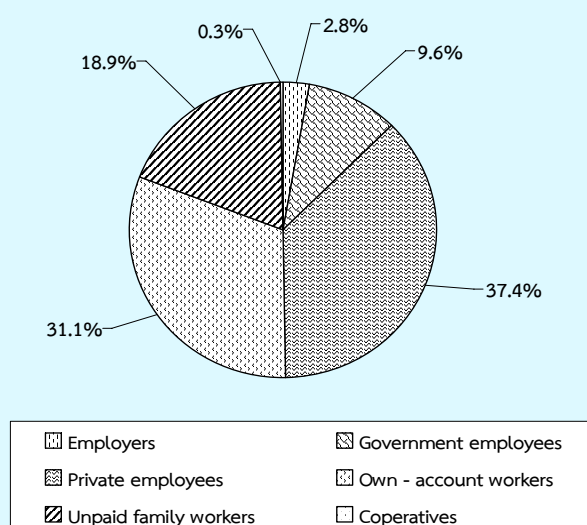
Area and sex	Level of educational attainment											Others <sup>1/</sup>	Unknown
	Total	None	Less than elementary	Elementary	Lower secondary	Upper secondary level			Higher level				
						General/academic	Vocational	Teacher training	Academic	Higher technical education	Teacher training		
Total	71.3	52.3	65.5	79.6	62.9	72.7	71.3	56.2	86.8	85.9	82.6	85.7	67.8
Male	80.2	65.9	77.5	86.2	72.5	82.0	77.1	68.2	90.1	91.2	80.6	96.4	74.1
Female	62.9	44.3	56.2	72.1	51.7	63.5	63.2	35.9	84.2	80.1	83.6	71.9	59.3
M.A.	70.1	50.3	60.5	77.1	61.9	66.7	71.5	54.2	85.6	85.0	78.7	80.6	65.1
Male	78.1	67.2	73.3	84.5	69.6	75.0	76.2	80.3	88.6	89.8	78.0	98.3	72.3
Female	62.9	41.1	51.6	69.6	53.1	58.7	65.6	19.4	83.2	79.7	79.0	58.3	55.6
Non-M.A.	71.9	53.0	67.4	80.5	63.4	76.5	71.2	58.0	89.0	86.7	85.5	90.3	74.9
Male	81.3	65.5	78.9	86.8	74.1	86.3	77.9	58.9	92.7	92.5	82.4	94.7	78.7
Female	62.8	45.5	58.0	73.2	50.9	66.6	60.8	56.0	86.0	80.5	87.2	84.5	69.5

<sup>1/</sup> Including short course vocational

### 3. Employed labor force

**3.1 Work status :** Table F illustrated that almost half (about 47.0%) of the total employed person were employees. Of these member 4 out of 5 were employees of private sector, followed by own account workers (31.1%). The unpaid family workers and employer accounted for 18.9% and 2.8% of the total employed, while the percentage of members of producers' cooperatives was very small of about 0.3% of the total employed persons.

**FIGURE 4 PERCENTAGE OF EMPLOYED PERSONS BY WORK STATUS**



The majority of employed persons in both areas were employees, followed by own account workers. In municipal area, about 57.2% were employees, among these, mostly working in private sector (44.9%). Only 12.3% were government employees. In non-municipal area, about 41.5% were employees, among these, 33.4% working in private sector, followed by own account workers 26.0% in municipal area and 33.8% in non-municipal area. For the proportion of unpaid family workers in municipal area was rather low compared

with non-municipal area (12.9% and 22.1% respectively).

Considering by region, it was found that the percentages of those employed in almost all regions, including Bangkok were employees, followed by own account workers, except for the northeast.

**3.2 Industry :** (Table G) About 36.1% of the total employed persons worked in agricultural sector and about 63.9% in non-agricultural sector mostly in wholesale and retail trade (16.1%) ; the highest proportions of the employed persons was followed by manufacturing (14.7%), construction (7.1%), accommodation (6.1%), public administration (4.6%), education (3.3%). The rest shared in the other industries.

Most employed persons (87.1%) in municipal area worked in non-agricultural sector, the principal activities were wholesale and retail trade (22.4%), followed by manufacturing (18.6%), accommodation and food service activities (9.8%). Likewise, most of those in non-municipal area worked in non - agricultural sector (51.7%).

Considering regional differentials, it showed that the majority of employed persons in the region were in non-agricultural sector, especially the Central Region (76.1%), the Northeast Region (53.8%) the North and the South (53.3%). It was clearly seen that the majority of employed persons in Bangkok were in non-agricultural sector (99.5 %).

**3.3 Occupation :** the distribution of employed persons by occupation (table H), showed that skilled agricultural and fishery



TABLE F NUMBER AND PERCENTAGE OF EMPLOYED PERSONS BY WORK STATUS, REGION AND AREA

WORK STATUS	Whole Kingdom			Bangkok	Central Region			Northern Region			Northeastern Region			Southern Region		
	Total	M.A.	Non-		Total	M.A.	Non-	Total	M.A.	Non-	Total	M.A.	Non-	Total	M.A.	Non-
			M.A.				M.A.			M.A.			M.A.			M.A.
Number ('000)																
Total	38,008.4	13,034.5	24,973.9	3,903.1	9,496.0	3,449.2	6,046.8	7,144.3	1,819.9	5,324.4	12,102.0	2,422.7	9,679.2	5,363.1	1,439.6	3,923.5
Employers	1,077.7	499.8	577.9	184.0	297.6	112.2	185.4	148.7	57.6	91.2	226.8	61.8	165.0	220.6	84.3	136.4
Government employees	3,628.7	1,608.7	2,020.0	371.0	803.8	357.3	446.5	693.2	267.9	425.3	1,260.8	399.1	861.7	499.8	213.2	286.5
Private employees	14,194.4	5,848.0	8,346.5	2,241.0	4,671.9	1,787.0	2,884.8	2,145.0	595.3	1,549.7	3,393.9	717.9	2,676.0	1,742.7	506.7	1,236.0
Own - account workers	11,829.3	3,391.6	8,437.7	826.3	2,321.7	796.1	1,525.6	2,451.6	569.7	1,881.9	4,432.2	786.7	3,645.5	1,797.6	412.9	1,384.7
Unpaid family workers	7,184.7	1,676.9	5,507.9	280.6	1,396.5	395.4	1,001.2	1,698.0	328.1	1,369.8	2,713.9	450.4	2,263.5	1,095.7	222.4	873.4
Members of Producers	93.5	9.6	83.9	0.2	4.5	1.2	3.3	7.8	1.3	6.5	74.4	6.8	67.6	6.7	0.1	6.5
Cooperatives																
Percentage																
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Employers	2.8	3.8	2.3	4.7	3.1	3.3	3.1	2.1	3.2	1.7	1.9	2.6	1.7	4.1	5.9	3.5
Government employees	9.6	12.3	8.1	9.5	8.5	10.4	7.4	9.7	14.7	8.0	10.4	16.5	8.9	9.3	14.8	7.3
Private employees	37.4	44.9	33.4	57.4	49.2	51.8	47.7	30.0	32.7	29.1	28.0	29.6	27.7	32.5	35.2	31.5
Own - account workers	31.1	26.0	33.8	21.2	24.5	23.1	25.2	34.3	31.3	35.4	36.6	32.5	37.7	33.5	28.7	35.3
Unpaid family workers	18.9	12.9	22.1	7.2	14.7	11.5	16.6	23.8	18.0	25.7	22.4	18.6	23.4	20.4	15.5	22.3
Members of Producers	0.3	0.1	0.3	-	0.1	0.0	0.1	0.1	0.1	0.1	0.6	0.3	0.7	0.1	0.0	0.2
Cooperatives																

TABLE G NUMBER AND PERCENTAGE OF EMPLOYED PERSONS BY INDUSTRY, REGION AND AREA

INDUSTRY	Whole Kingdom			Bangkok	Central Region			Northern Region			Northeastern Region			Southern Region		
	Total	M.A.	Non-M.A.		Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.
Number ('000)																
Total	38,008.4	13,034.5	24,973.9	3,903.1	9,496.0	3,449.2	6,046.8	7,144.3	1,819.9	5,324.4	12,102.0	2,422.7	9,679.2	5,363.1	1,439.6	3,923.5
Agricultural	13,723.6	1,677.5	12,046.0	20.7	2,269.7	295.7	1,974.0	3,337.5	447.7	2,889.8	5,589.4	673.6	4,915.9	2,506.3	239.9	2,266.4
1. Agriculture, forestry and fishing	13,723.6	1,677.5	12,046.0	20.7	2,269.7	295.7	1,974.0	3,337.5	447.7	2,889.8	5,589.4	673.6	4,915.9	2,506.3	239.9	2,266.4
Non-Agricultural	24,284.8	11,356.9	12,927.9	3,882.4	7,226.3	3,153.5	4,072.8	3,806.8	1,372.2	2,434.6	6,512.6	1,749.2	4,763.4	2,856.8	1,199.7	1,657.1
1. Mining and quarrying	87.6	19.4	68.3	3.7	21.7	2.8	18.9	19.6	3.4	16.3	29.7	2.7	27.0	12.9	6.8	6.1
2. Manufacturing	5,579.7	2,430.0	3,149.7	838.9	2,502.6	1,014.0	1,488.6	678.6	239.1	439.5	1,215.8	233.4	982.4	343.7	104.6	239.1
3. Electricity, gas, steam and air conditioning supply	99.7	59.7	40.0	8.6	47.6	25.9	21.7	18.0	11.9	6.0	13.9	7.2	6.7	11.7	6.1	5.5
4. Water supply; sewerage, waste management and remediation activities	82.3	26.2	56.1	7.9	33.5	8.4	25.1	12.9	1.9	11.0	18.9	6.8	12.2	9.2	1.3	7.9
5. Construction	2,680.6	762.8	1,917.8	190.7	520.4	184.1	336.3	585.8	142.2	443.6	1,088.2	162.9	925.2	295.6	82.9	212.7
6. Wholesale and retail trade; repair of motor vehicles and motorcycles	6,117.0	2,924.2	3,192.8	928.7	1,572.4	708.5	863.9	1,028.2	379.4	648.8	1,676.4	524.2	1,152.2	911.2	383.4	527.8
7. Transportation and storage	965.6	546.7	418.9	288.6	305.3	134.8	170.5	87.6	29.0	58.7	194.1	50.7	143.4	90.0	43.8	46.3
8. Accommodation and food service activities	2,309.9	1,273.7	1,036.2	363.9	712.2	373.6	338.5	354.9	150.4	204.5	482.5	179.0	303.5	396.4	206.7	189.7
9. Information and communication	225.1	156.9	68.1	90.6	43.3	23.9	19.4	14.8	8.8	6.0	55.5	22.4	33.1	20.9	11.3	9.6
10. Financial and insurance activities	450.0	294.1	155.9	166.6	109.9	53.0	57.0	53.1	21.6	31.5	79.2	33.2	46.0	41.3	19.9	21.4
11. Real estate activities	130.5	99.4	31.0	53.8	53.9	27.9	26.0	8.1	5.3	2.8	8.1	6.8	1.3	6.6	5.7	0.9
12. Professional, scientific and technical activities	250.8	187.9	62.8	118.7	65.2	34.8	30.5	21.5	11.4	10.1	24.7	11.8	12.9	20.7	11.3	9.4
13. Administrative and support service activities	406.4	273.5	132.9	156.0	127.2	61.7	65.5	35.5	18.2	17.3	35.9	14.3	21.6	51.9	23.4	28.6
14. Public administration and defence; compulsory social security	1,735.5	755.8	979.7	192.7	385.5	169.9	215.6	327.0	121.0	206.0	608.0	172.7	435.4	222.3	99.5	122.7
15. Education	1,246.6	575.1	671.5	133.4	265.9	119.3	146.6	242.0	96.5	145.4	408.8	147.6	261.3	196.6	78.3	118.3
16. Human health and social work activities	652.9	312.7	340.3	83.5	140.5	60.4	80.1	128.9	48.6	80.4	206.7	73.0	133.7	93.4	47.2	46.2
17. Arts, entertainment and recreation	227.4	102.1	125.3	29.1	57.2	27.7	29.5	52.4	18.5	33.9	69.1	16.5	52.6	19.6	10.4	9.2
18. Other service activities	735.0	380.5	354.5	125.7	187.3	91.6	95.7	101.5	48.6	52.9	220.7	65.3	155.4	99.9	49.4	50.5
19. Activities of households as employers ; undifferentiated goods and services producing activities of households for own use	271.6	151.7	119.9	85.3	62.3	24.2	38.1	34.8	15.9	18.9	76.2	18.7	57.5	13.0	7.7	5.3
20. Activities of wxtraterritorial organizations and bodies	2.2	1.2	1.0	-	0.6	0.6	-	1.5	0.6	1.0	-	-	-	0.1	0.1	-
21. Unknown	28.6	23.3	5.4	16.3	12.1	6.7	5.4	-	-	-	0.2	0.2	-	-	-	-

TABLE G    NUMBER AND PERCENTAGE OF EMPLOYED PERSONS BY INDUSTRY, REGION AND AREA (Contd.)

INDUSTRY	Whole Kingdom			Bangkok	Central Region			Northern Region			Northeastern Region			Southern Region		
	Total	M.A.	Non-M.A.		Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.
Percentage																
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agricultural	36.1	12.9	48.2	0.5	23.9	8.6	32.7	46.7	24.6	54.3	46.2	27.8	50.8	46.7	16.7	57.8
1. Agriculture, forestry and fishing	36.1	12.9	48.2	0.5	23.9	8.6	32.7	46.7	24.6	54.3	46.2	27.8	50.8	46.7	16.7	57.8
Non-Agricultural	63.9	87.1	51.7	99.5	76.1	91.4	67.3	53.3	75.4	45.7	53.8	72.2	49.2	53.3	83.3	42.2
1. Mining and quarrying	0.2	0.2	0.3	0.1	0.2	0.1	0.3	0.3	0.2	0.3	0.3	0.1	0.3	0.2	0.5	0.2
2. Manufacturing	14.7	18.6	12.6	21.5	26.4	29.4	24.6	9.5	13.1	8.3	10.1	9.6	10.2	6.4	7.3	6.1
3. Electricity, gas, steam and air conditioning supply	0.3	0.5	0.2	0.2	0.5	0.8	0.4	0.3	0.7	0.1	0.1	0.3	0.1	0.2	0.4	0.1
4. Water supply; sewerage, waste management and remediation activities	0.2	0.2	0.2	0.2	0.4	0.2	0.4	0.2	0.1	0.2	0.2	0.3	0.1	0.2	0.1	0.2
5. Construction	7.1	5.9	7.7	4.9	5.5	5.3	5.6	8.2	7.8	8.3	9.0	6.7	9.6	5.5	5.8	5.4
6. Wholesale and retail trade; repair of motor vehicles and motorcycles	16.1	22.4	12.8	23.8	16.6	20.5	14.3	14.4	20.9	12.2	13.9	21.6	11.9	17.0	26.6	13.5
7. Transportation and storage	2.5	4.2	1.7	7.4	3.2	3.9	2.8	1.2	1.6	1.1	1.6	2.1	1.5	1.7	3.0	1.2
8. Accommodation and food service activities	6.1	9.8	4.2	9.3	7.5	10.8	5.6	5.0	8.3	3.8	4.0	7.4	3.1	7.4	14.4	4.8
9. Information and communication	0.6	1.2	0.3	2.3	0.5	0.7	0.3	0.2	0.5	0.1	0.5	0.9	0.3	0.4	0.8	0.3
10. Financial and insurance activities	1.2	2.3	0.6	4.3	1.2	1.5	0.9	0.7	1.2	0.6	0.7	1.4	0.5	0.8	1.4	0.6
11. Real estate activities	0.3	0.8	0.1	1.4	0.6	0.8	0.4	0.1	0.3	0.1	0.1	0.3	0.0	0.1	0.4	0.0
12. Professional, scientific and technical activities	0.7	1.4	0.3	3.0	0.7	1.0	0.5	0.3	0.6	0.2	0.2	0.5	0.1	0.4	0.8	0.2
13. Administrative and support service activities	1.1	2.1	0.5	4.0	1.3	1.8	1.1	0.5	1.0	0.3	0.3	0.6	0.2	1.0	1.6	0.7
14. Public administration and defence; compulsory social security	4.6	5.8	3.9	4.9	4.1	4.9	3.6	4.6	6.7	3.9	5.0	7.1	4.5	4.1	6.9	3.1
15. Education	3.3	4.4	2.7	3.4	2.8	3.5	2.4	3.4	5.3	2.7	3.4	6.1	2.7	3.7	5.4	3.0
16. Human health and social work activities	1.7	2.4	1.4	2.1	1.5	1.8	1.3	1.8	2.7	1.5	1.7	3.0	1.4	1.7	3.3	1.2
17. Arts, entertainment and recreation	0.6	0.8	0.5	0.7	0.6	0.8	0.5	0.7	1.0	0.6	0.6	0.7	0.5	0.4	0.7	0.2
18. Other service activities	1.9	2.9	1.4	3.2	2.0	2.7	1.6	1.4	2.7	1.0	1.8	2.7	1.6	1.9	3.4	1.3
19. Activities of households as employers ; undifferentiated goods and services producing activities of households for own use	0.7	1.2	0.5	2.2	0.7	0.7	0.6	0.5	0.9	0.4	0.6	0.8	0.6	0.2	0.5	0.1
20. Activities of wxtraterritorial organizations and bodies	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-
21. Unknown	0.1	0.2	0.0	0.4	0.1	0.2	0.1	-	-	-	0.0	0.0	-	-	-	-

TABLE H NUMBER AND PERCENTAGE OF EMPLOYED PERSONS BY OCCUPATION, REGION AND AREA

OCCUPATION	Whole Kingdom			Bangkok	Central Region			Northern Region			Northeastern Region			Southern Region		
	Total	M.A.	Non-M.A.		Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.
Number ('000)																
Total	38,008.4	13,034.5	24,973.9	3,903.1	9,496.0	3,449.2	6,046.8	7,144.3	1,819.9	5,324.4	12,102.0	2,422.7	9,679.2	5,363.1	1,439.6	3,923.5
1. Legislator, senior officials and manage	1,263.7	658.1	605.6	323.8	346.5	151.8	194.7	122.5	40.4	82.1	336.3	77.1	259.2	134.6	65.1	69.6
2. Professionals	1,959.4	1,091.7	867.7	427.2	464.4	223.6	240.9	310.8	134.8	176.0	509.8	192.8	317.0	247.2	113.3	133.9
3. Technicians and associate professionals	1,399.8	846.5	553.4	394.2	462.2	214.9	247.4	149.2	69.4	79.8	261.7	100.1	161.6	132.5	68.0	64.6
4. Clerks	1,396.9	767.5	629.4	324.5	447.8	188.0	259.8	207.5	87.9	119.7	261.7	96.2	165.4	155.3	70.8	84.5
5. Service workers and shop and market sales workers	7,334.7	3,734.2	3,600.5	1,095.2	1,995.7	984.0	1,011.8	1,216.3	472.8	743.4	1,893.1	665.7	1,227.5	1,134.4	516.6	617.8
6. Skilled agricultural and fishery workers	11,848.3	1,452.3	10,396.0	22.5	1,799.3	243.7	1,555.6	2,812.2	386.9	2,425.3	4,810.3	571.0	4,239.3	2,404.1	228.2	2,175.9
7. Craftsmen and related trades workers	4,607.5	1,683.6	2,923.9	484.5	1,202.3	466.0	736.3	877.2	284.7	592.5	1,516.5	280.7	1,235.9	527.0	167.8	359.2
8. Plant and machine operators and assemblers	3,172.7	1,392.2	1,780.5	480.5	1,463.3	589.8	873.5	329.7	107.8	222.0	727.0	141.1	585.9	172.2	73.0	99.2
9. Elementary occupations	4,999.0	1,390.0	3,609.0	339.3	1,300.3	380.8	919.5	1,118.4	235.1	883.3	1,785.4	298.0	1,487.4	455.7	136.8	318.9
10. Workers not classifiable by occupation	26.4	18.6	7.9	11.6	14.2	6.7	7.4	0.5	0.0	0.4	0.2	0.2	-	0.0	0.0	-
Percentage																
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1. Legislator, senior officials and manage	3.3	5.1	2.4	8.3	3.7	4.4	3.2	1.7	2.2	1.5	2.8	3.2	2.7	2.5	4.5	1.8
2. Professionals	5.2	8.4	3.5	11.0	4.9	6.5	4.0	4.4	7.4	3.3	4.2	8.0	3.3	4.6	7.9	3.4
3. Technicians and associate professionals	3.7	6.5	2.2	10.1	4.9	6.2	4.1	2.1	3.8	1.5	2.2	4.1	1.7	2.5	4.7	1.7
4. Clerks	3.7	5.9	2.5	8.3	4.7	5.5	4.3	2.9	4.8	2.3	2.2	4.0	1.7	2.9	4.9	2.2
5. Service workers and shop and market sales workers	19.3	28.7	14.4	28.1	21.0	28.5	16.7	17.0	26.0	14.0	15.6	27.5	12.7	21.2	35.9	15.8
6. Skilled agricultural and fishery workers	31.2	11.1	41.6	0.6	19.0	7.1	25.7	39.4	21.3	45.6	39.8	23.6	43.8	44.8	15.9	55.5
7. Craftsmen and related trades workers	12.1	12.9	11.7	12.4	12.7	13.5	12.2	12.3	15.6	11.1	12.5	11.6	12.8	9.8	11.7	9.2
8. Plant and machine operators and assemblers	8.4	10.7	7.1	12.3	15.4	17.1	14.4	4.6	5.9	4.2	6.0	5.8	6.1	3.2	5.1	2.5
9. Elementary occupations	13.2	10.7	14.5	8.7	13.7	11.0	15.2	15.7	12.9	16.6	14.8	12.3	15.4	8.5	9.5	8.1
10. Workers not classifiable by occupation	0.1	0.1	0.0	0.3	0.2	0.2	0.1	0.0	-	0.0	-	0.0	-	-	-	-

TABLE I NUMBER AND PERCENTAGE OF EMPLOYED PERSON BY LEVEL OF EDUCATIONAL ATTAINMENT, REGION AND AREA

LEVEL OF EDUCATIONAL ATTAINMENT	Whole Kingdom			Bangkok	Central Region			Northern Region			Northeastern Region			Southern Region		
	Total	M.A.	Non- M.A.		Total	M.A.	Non- M.A.	Total	M.A.	Non- M.A.	Total	M.A.	Non- M.A.	Total	M.A.	Non- M.A.
Number ('000)																
Total	38,008.4	13,034.5	24,973.9	3,903.1	9,496.0	3,449.2	6,046.8	7,144.3	1,819.9	5,324.4	12,102.0	2,422.7	9,679.2	5,363.1	1,439.6	3,923.5
None	1,327.8	345.7	982.1	63.8	356.9	127.4	229.5	561.3	86.6	474.7	147.2	26.7	120.5	198.6	41.2	157.4
Less than Elementary	9,636.0	2,425.5	7,210.5	463.5	2,177.8	644.4	1,533.4	2,228.1	513.5	1,714.7	3,566.3	573.2	2,993.2	1,200.3	231.1	969.3
Elementary	8,878.1	2,328.8	6,549.3	674.5	1,907.8	576.2	1,331.6	1,511.8	301.7	1,210.2	3,434.4	521.7	2,912.7	1,349.6	254.8	1,094.9
Lower Secondary	5,937.7	1,985.9	3,951.8	527.5	1,659.1	626.9	1,032.2	995.6	248.2	747.4	1,870.4	353.8	1,516.6	885.1	229.5	655.6
Upper Secondary Level	5,506.4	2,143.0	3,363.4	635.1	1,493.4	603.0	890.4	900.8	252.7	648.1	1,683.6	396.4	1,287.2	793.4	255.8	537.7
General/Academic	4,248.5	1,528.7	2,719.8	419.0	1,092.5	426.6	665.8	712.9	183.9	529.0	1,419.0	315.9	1,103.1	605.1	183.2	421.9
Vocational	1,241.5	606.7	634.8	214.7	395.8	174.0	221.8	183.1	67.5	115.6	261.4	78.9	182.5	186.5	71.7	114.8
Teacher Training	16.3	7.5	8.8	1.4	5.1	2.4	2.7	4.8	1.3	3.5	3.2	1.6	1.6	1.8	0.8	1.0
Higher Level	6,598.4	3,729.7	2,868.6	1,522.6	1,844.9	839.5	1,005.5	931.5	405.8	525.7	1,395.8	549.9	845.9	903.6	412.0	491.6
Academic	3,888.0	2,486.1	1,402.0	1,186.5	1,080.6	531.8	548.8	482.9	239.5	243.4	662.4	290.1	372.3	475.7	238.2	237.4
Higher Technical Education	1,999.3	953.6	1,045.7	278.7	603.0	247.4	355.6	323.7	119.5	204.2	496.6	182.3	314.2	297.5	125.8	171.7
Teacher Training	711.0	290.1	420.9	57.5	161.4	60.3	101.1	124.8	46.8	78.1	236.8	77.5	159.3	130.5	48.0	82.5
Others <sup>1/</sup>	41.0	18.3	22.7	-	18.0	7.7	10.3	14.0	10.4	3.6	-	-	-	9.1	0.2	8.9
Unknown	83.0	57.6	25.5	16.1	38.1	24.2	13.9	1.1	1.1	-	4.3	1.1	3.2	23.4	15.1	8.3
Percentage																
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
None	3.5	2.7	3.9	1.6	3.8	3.7	3.8	7.9	4.8	8.9	1.2	1.1	1.3	3.7	2.9	4.0
Less than Elementary	25.4	18.6	28.9	11.9	22.9	18.7	25.4	31.2	28.2	32.2	29.5	23.7	30.9	22.4	16.1	24.7
Elementary	23.4	17.9	26.2	17.3	20.1	16.7	22.0	21.2	16.6	22.7	28.4	21.5	30.1	25.2	17.7	27.9
Lower Secondary	15.6	15.2	15.8	13.5	17.5	18.2	17.1	13.9	13.6	14.0	15.5	14.6	15.7	16.5	15.9	16.7
Upper Secondary Level	14.5	16.4	13.5	16.3	15.7	17.5	14.7	12.6	13.9	12.2	13.9	16.4	13.3	14.8	17.8	13.7
General/Academic	11.2	11.7	10.9	10.7	11.5	12.4	11.0	10.0	10.1	9.9	11.7	13.0	11.4	11.3	12.7	10.8
Vocational	3.3	4.7	2.5	5.5	4.2	5.1	3.7	2.6	3.7	2.2	2.2	3.3	1.9	3.5	5.0	2.9
Teacher Training	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0
Higher Level	17.4	28.6	11.5	39.0	19.4	24.3	16.6	13.0	22.3	9.9	11.5	22.7	8.7	16.9	28.6	12.5
Academic	10.2	19.1	5.6	30.4	11.4	15.4	9.1	6.8	13.2	4.6	5.5	12.0	3.9	8.9	16.6	6.1
Higher Technical Education	5.3	7.3	4.2	7.1	6.4	7.2	5.9	4.5	6.6	3.8	4.1	7.5	3.3	5.6	8.7	4.4
Teacher Training	1.9	2.2	1.7	1.5	1.7	1.8	1.7	1.8	2.6	1.5	2.0	3.2	1.7	2.4	3.3	2.1
Others <sup>1/</sup>	0.1	0.1	0.1	-	0.2	0.2	0.2	0.2	0.6	0.1	-	-	-	0.2	0.0	0.2
Unknown	0.2	0.4	0.1	0.4	0.4	0.7	0.2	0.0	0.1	-	0.0	0.0	0.0	0.4	1.1	0.2

<sup>1/</sup> Including short course vocational

workers constituted the bulk of the employed labor force (31.2%). The occupation group with the next largest number of workers was service workers and shop and market sales workers which accounted for 19.3% elementary occupations workers 13.2% craft and related trades workers, about 12.1% and the rest were the other occupations.

The pattern of occupation in municipal area was quite different from that of non-municipal area and the whole kingdom. In municipal area, about 28.7% of the total employed were service workers and shop and market sales workers, 12.9% were craft and related trades workers, 11.1% were skilled agricultural and fishery workers and 10.7% were elementary occupation workers. The occupational patterns in non-municipal area were similar to the whole kingdom, which the largest number of workers were skilled agricultural and fishery workers 41.6%, followed by service workers and shop and market sales workers and elementary occupations workers 14.5% and craft and related trades workers 11.7%.

In every region, the occupational patterns were not very different. That was the principal occupation was agricultural occupation, especially in the South, comprised 44.8%, the next was the Northeast 39.8%, the North 39.4% and the Central 19.0%. But in Bangkok, service workers and shop and market sales workers constituted about 28.1% of the total employed. Around 12.4% were crafts and related trade workers, plant and machine operators were 12.3%, professionals were

11.0%, technicians and associate professionals were 10.1%, elementary occupation workers were 8.7% and clerks were 8.3% and the rest were the other occupations.

**3.4 Education :** The distribution of employed persons by level of educational attainment (Table I) illustrated that vast majority of employed people were with rather low level of education, (52.3% ; only some elementary level or no education , while those of 30.1% were with secondary level, 17.4% with higher level and the rest were others.

Employed people resided in municipal areas completed higher than elementary level (secondary and higher level) with higher rate than those lived in non-municipal areas (60.2% and 40.8% respectively). In municipal area, 39.2% of employed persons held some elementary level or no education , 31.6% secondary level and 28.6% with higher level, whereas the corresponding educational level for employed persons in non-municipal area were 59.0%, 29.3% and 11.5% respectively.

The majority of employed persons in every region were with some elementary level or no education, especially in the North (about 60.3%), followed by the Northeast (59.1%), the South (51.3%) and the Central (46.8%). It was observed that there were relatively high number of employed people with secondary and higher levels in the Central and the Southern regions (33.2% and 31.3%) (19.4% and 16.9% respectively)

In Bangkok, most of employed person completed higher than elementary education (68.8%), especially there was the highest rate of those with higher level of education (39.0%).

#### 4. Unemployment

The unemployment rate is the ratio of the number of unemployed persons to

the labor force expressed as a percentage. It depends, therefore, on the definition of unemployment as well as of the labor force adopted in the survey. Beginning from the survey in August 1982, unemployment has been measured, for a better understanding of the situation, in terms of persons available for works, including not only those actively looking for work but also those not looking for but available for work. As well, the classification of the labor force status or activity has been revised to include, the current labor force, the seasonally inactive labor force, to constitute what is described as the total labor force. Different unemployment rates can be computed for purpose of comparative analysis, using different measures of unemployment and labor force as given in Table J.

TABLE J DIFFERENT RATES OF UNEMPLOYMENT, QUARTER 1 : JANUARY - MARCH 2012

(Percentage)		
Labor force	Actively looking for work	Total available for work
Current labor force	0.1	0.7
Total labor force	0.1	0.7

In general, during the agricultural season, the unemployment rate calculated from the total labor force is very close to that obtained from the current labor force

but in the slack season the rates are quite different.

At this quarter of the survey, the rate of total unemployment or percentage

of the total labor force who did not work but were available for work (total available for work) was about 0.7% while the open unemployment which measured from those who were actively looking for work was 0.1%. Generally, any measurement of unemployment shows that the number of unemployed persons was among the off-season of agriculture are more than the numbers among agricultural season of the same year.

Table K reveals that the rate of unemployment was rather high among the

young population aged 15-29 years or those who just entered in the labor force. Of these the population aged 15-24 years (include males and females) had very high rates of unemployment, especially the population aged 15-19 years had the highest rates (2.9%). This reflects an increasingly widespread problem of unemployment among the young population with middle and high level of educational attainment since the young with secondary level, higher level or equivalent educational levels begin to enter the labor market at around this age-group.

**FIGURE 5 UNEMPLOYMENT RATES BY AGE GROUP (YEARS)**

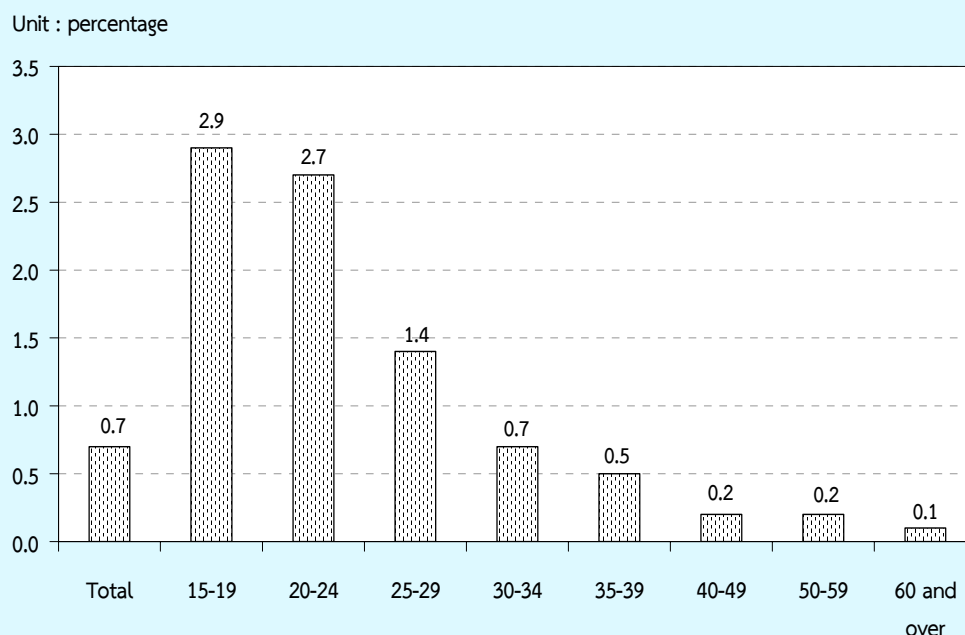




TABLE K UNEMPLOYMENT RATES BY AGE GROUP, SEX, REGION AND AREA

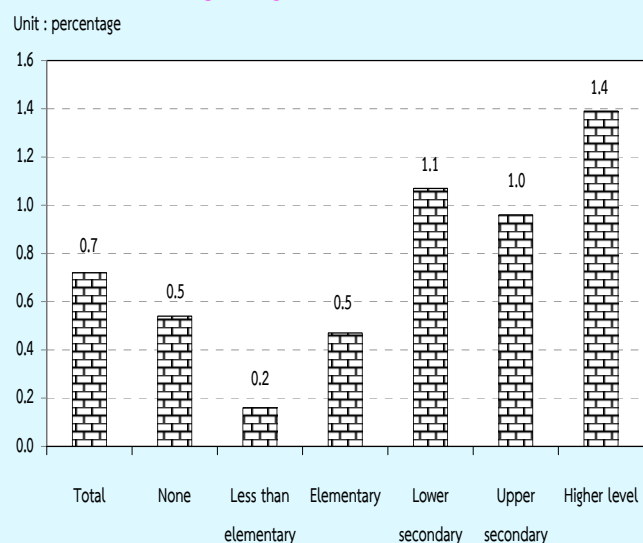
Sex and age group (years)	(Percentage)															
	Whole kingdom			Bangkok	Central region			Northern region			Northeastern region			Southern region		
	Total	M.A.	Non-M.A.		Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.	Total	M.A.	Non-M.A.
<b>Total</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>0.6</b>	<b>0.7</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>0.6</b>	<b>0.9</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>
15-19	2.9	2.2	3.1	4.0	2.9	1.4	3.6	1.3	1.3	1.4	3.8	3.1	4.0	2.3	1.0	2.6
20-24	2.7	3.1	2.5	3.9	2.0	3.3	1.4	2.5	2.2	2.6	3.1	3.1	3.1	2.5	2.7	2.4
25-29	1.4	1.4	1.4	1.2	1.3	1.5	1.1	1.5	2.2	1.3	1.8	1.2	2.0	0.6	0.8	0.5
30-34	0.7	0.5	0.7	0.7	0.8	0.4	1.0	0.7	0.7	0.7	0.7	0.4	0.8	0.2	0.4	0.2
35-39	0.5	0.5	0.4	0.2	0.6	1.1	0.3	0.5	0.1	0.6	0.5	0.4	0.5	0.3	0.3	0.3
40-49	0.2	0.3	0.2	0.4	0.2	0.2	0.1	0.2	0.3	0.1	0.2	0.1	0.2	0.1	0.2	0.1
50-59	0.2	0.2	0.1	0.6	0.1	0.0	0.1	0.2	0.2	0.2	0.0	0.1	-	0.3	0.1	0.3
60 and over	0.1	0.0	0.2	-	0.1	0.0	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1
<b>Male</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.9</b>	<b>0.8</b>	<b>0.9</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>0.6</b>	<b>1.0</b>	<b>0.7</b>	<b>1.1</b>	<b>0.4</b>	<b>0.4</b>	<b>0.5</b>
15-19	2.5	2.7	2.5	6.6	2.2	1.5	2.5	0.4	1.1	0.3	3.5	3.1	3.6	2.3	1.3	2.6
20-24	2.8	3.3	2.6	5.0	2.4	3.9	1.6	2.5	2.2	2.6	3.5	3.3	3.6	1.5	1.0	1.6
25-29	1.5	1.5	1.5	0.9	1.5	1.9	1.3	1.4	2.6	1.0	2.1	1.3	2.3	0.5	0.9	0.4
30-34	0.9	0.6	1.0	0.7	1.1	0.4	1.4	0.9	0.9	0.9	1.1	0.6	1.2	0.1	0.3	-
35-39	0.5	0.6	0.4	0.5	0.7	1.3	0.4	0.4	0.1	0.5	0.4	0.5	0.4	0.1	0.0	0.1
40-49	0.2	0.3	0.1	0.5	0.2	0.3	0.2	0.1	0.5	-	0.1	0.0	0.2	0.1	0.1	0.0
50-59	0.2	0.3	0.1	0.9	0.1	0.0	0.1	0.1	0.2	0.1	0.0	0.1	-	0.2	0.0	0.3
60 and over	0.2	0.0	0.2	-	0.1	-	0.1	0.3	0.2	0.3	0.2	-	0.2	-	-	-
<b>Female</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>	<b>0.7</b>	<b>0.4</b>	<b>0.8</b>	<b>0.7</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>
15-19	3.6	1.3	4.4	-	4.1	1.1	5.5	3.5	1.6	4.0	4.5	3.1	4.8	2.3	0.5	2.8
20-24	2.5	3.0	2.3	2.9	1.6	2.6	1.1	2.5	2.1	2.6	2.3	2.8	2.2	3.9	4.9	3.6
25-29	1.3	1.2	1.3	1.5	1.1	1.1	1.0	1.7	1.7	1.7	1.5	1.1	1.6	0.7	0.7	0.8
30-34	0.4	0.4	0.4	0.6	0.5	0.3	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.5	0.4
35-39	0.4	0.3	0.5	-	0.5	0.8	0.3	0.5	-	0.7	0.5	0.3	0.5	0.6	0.7	0.6
40-49	0.2	0.2	0.2	0.4	0.1	0.1	0.1	0.3	0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.2
50-59	0.1	0.1	0.2	0.2	0.0	0.1	-	0.3	0.1	0.4	-	-	-	0.3	0.2	0.4
60 and over	0.1	0.1	0.1	-	0.0	0.0	-	-	-	-	0.2	0.1	0.2	0.1	0.1	0.2

Considered unemployment rate by sex, it was found that, unemployment rate of male (0.8 %) and female (0.6 %). The unemployment rate in municipal was the same as in non-municipal areas (0.7%). Similar pattern appeared in most regions, there was highest , rates of unemployment in the Northeast ; with 0.8%, Bangkok, the Central and the North with 0.7% and the South 0.6%.

Considering on levels of educational attainment of the unemployed person (Table L), it was found that the unemployment rates of persons attained higher level (academic and technical),

upper secondary level (vocational) and lower secondary level were rather high.

**FIGURE 6 UNEMPLOYMENT RATES BY LEVEL OF EDUCATIONAL ATTAINMENT**



**TABLE L UNEMPLOYMENT RATES BY LEVEL OF EDUCATIONAL ATTAINMENT, SEX AND AREA**

Area and sex	(Percentage)											
	Level of educational attainment											
	Total	None	Less than elementary	Elementary	Lower secondary	Upper secondary level			Higher level			Others <sup>1/</sup>
						General/academic	Vocational	Teacher training	Academic technical education	Higher technical education	Teacher training	and unknown
<b>Total</b>	<b>0.7</b>	<b>0.5</b>	<b>0.2</b>	<b>0.5</b>	<b>1.1</b>	<b>0.9</b>	<b>1.3</b>	<b>-</b>	<b>1.4</b>	<b>1.6</b>	<b>0.8</b>	<b>0.4</b>
Male	0.8	0.8	0.1	0.6	1.1	0.9	1.2	-	1.4	2.0	0.9	0.4
Female	0.6	0.3	0.2	0.3	1.0	0.9	1.3	-	1.4	1.2	0.7	0.4
<b>M.A.</b>	<b>0.7</b>	<b>0.5</b>	<b>0.2</b>	<b>0.4</b>	<b>1.0</b>	<b>0.7</b>	<b>0.8</b>	<b>-</b>	<b>1.0</b>	<b>1.3</b>	<b>0.4</b>	<b>0.9</b>
Male	0.8	0.9	0.2	0.5	1.1	1.0	0.9	-	1.0	1.5	-	0.8
Female	0.6	0.2	0.1	0.2	0.9	0.3	0.6	-	1.0	1.1	0.7	1.0
<b>Non-M.A.</b>	<b>0.7</b>	<b>0.5</b>	<b>0.2</b>	<b>0.5</b>	<b>1.1</b>	<b>1.0</b>	<b>1.7</b>	<b>-</b>	<b>2.0</b>	<b>1.9</b>	<b>1.0</b>	<b>-</b>
Male	0.8	0.7	0.1	0.6	1.1	0.9	1.5	-	2.1	2.5	1.6	-
Female	0.7	0.4	0.2	0.3	1.1	1.2	2.2	-	2.0	1.2	0.7	-

<sup>1/</sup> Including short course vocational

## 5. Characteristics of the unemployed labor force

Table M illustrates that the unemployed persons were largely males, (60.2%) whereas the corresponding percentage for females was 40.0%. The percentage of unemployed male were

about 61.3% and 59.6% of the total unemployed in municipal area and non-municipal area respectively which was higher than the female (38.7% and 40.4% respectively.)

**TABLE M NUMBER AND PERCENTAGE OF UNEMPLOYED PERSONS BY LEVEL OF EDUCATIONAL ATTAINMENT, SEX AND AREA**

Area and sex	Level of educational attainment											
	Total	None	Less than elementary	Elementary	Lower secondary	Upper secondary level			Higher level			Others <sup>1/</sup> and unknown
						General/academic	Vocational	Teacher training	Academic	Higher technical education	Teacher training	
Number ('000)												
Total	279.2	7.3	15.5	42.6	64.7	38.4	15.9	-	55.8	33.3	5.5	0.2
Male	168.0	4.9	6.9	31.2	41.5	22.3	9.7	-	26.5	22.7	2.3	0.1
Female	111.1	2.4	8.6	11.4	23.2	16.2	6.2	-	29.3	10.6	3.2	0.1
Municipal areas	91.4	1.9	3.7	8.5	21.0	10.7	4.7	-	26.9	12.7	1.3	0.2
Male	56.0	1.5	2.2	6.5	13.4	8.4	3.3	-	12.8	7.9	-	0.1
Female	35.4	0.4	1.6	2.0	7.5	2.3	1.4	-	14.0	4.8	1.3	0.1
Non-municipal areas	187.8	5.4	11.7	34.1	43.7	27.8	11.3	-	28.9	20.7	4.2	-
Male	112.0	3.4	4.8	24.7	28.1	13.9	6.5	-	13.7	14.8	2.3	-
Female	75.8	2.0	7.0	9.4	15.7	13.9	4.8	-	15.2	5.8	1.9	-
Percentage												
Total	100.0	2.6	5.5	15.3	23.2	13.8	5.7	-	20.0	11.9	2.0	0.1
Male	100.0	2.9	4.1	18.6	24.7	13.3	5.8	-	15.8	13.5	1.3	0.1
Female	100.0	2.2	7.7	10.3	20.9	14.6	5.6	-	26.3	9.6	2.9	0.1
Municipal areas	100.0	2.1	4.1	9.3	22.9	11.7	5.1	-	29.4	13.8	1.4	0.2
Male	100.0	2.7	3.8	11.7	24.0	15.0	5.8	-	22.9	14.0	-	0.2
Female	100.0	1.2	4.5	5.6	21.3	6.4	4.0	-	39.6	13.5	3.7	0.2
Non-municipal areas	100.0	2.9	6.3	18.2	23.3	14.8	6.0	-	15.4	11.0	2.2	-
Male	100.0	3.0	4.2	22.0	25.1	12.4	5.8	-	12.2	13.3	2.0	-
Female	100.0	2.7	9.2	12.4	20.7	18.4	6.3	-	20.1	7.7	2.6	-

<sup>1/</sup> Including short course vocational

The majority of the unemployed persons (67.3%) were in non-municipal area because these areas constituted a larger part of the total labor force. About 66.7% of the total unemployed males were in non-

municipal area while it was 68.2% of females. However, the percentage of unemployed males and females were lower in busy season than the slack season.

The unemployed persons with low level of education, i.e. some elementary education and no education was about 23.4% of the total unemployed, those with the higher level, i.e. secondary were about 42.7% and 33.9% respectively. Non-municipal area accounted higher than municipal area for elementary and no education (27.4% compared with 15.5%). While municipal area accounted higher proportion than non-municipal area for higher level (44.6% compared with 28.6%).

## 6. Hours worked

Data on number of hours worked and additional hours available for work obtained from all employed persons. In the case of persons who had job but did not work at all during the survey week, the

question on hours worked was interpreted as the zero hour per week. The data on hours worked included hours worked on all occupations ; principal as well as others.

The data summarized in Table N showed that about 31.7% of the employed persons worked 50 hours or more per week. About 47.1% of employed persons worked 35-49 hours per week. On the other hand, about 78.8% of employed person worked 35 hours or more per week and they might be classified as fully employed. About 19.1%, worked less than 35 hours per week ; may be treated as under-employed. Employed persons, with regular job but did not work during the survey week (0 hour) , accounted only 2.1%.

**TABLE N NUMBER AND PERCENTAGE OF EMPLOYED PERSONS BY HOURS WORKED PER WEEK**

Hours worked per week	Employed persons		Persons available for additional work	
	Number (in thousands)	Percentage	Number (in thousands)	Percentage (as compared to employed)
Total	38,008.4	100.0	467.8	1.2
0 hour	796.8	2.1	81.2	10.2
1 - 9 hours	285.1	0.8	29.2	10.2
10 - 19 hours	1,200.0	3.2	87.9	7.3
20 - 29 hours	3,494.6	9.2	107.9	3.1
30 - 34 hours	2,253.1	5.9	46.3	2.1
35 - 39 hours	3,767.1	9.9	31.0	0.8
40 - 49 hours	14,154.0	37.2	69.4	0.5
50 hours and over	12,057.7	31.7	14.9	0.1

The percentage of employed persons who were available for additional work, which is also an indicator for under-employment, accounted for about 1.2%. Of the employed persons who worked less than 35 hours per week, 3.8 % desired and were available for additional work. The details of hours worked by occupation, industry and work status are presented in the statistical tables ( Appendix B : Statistical tables 8-10 ).

## 7. Wages and salaries

Data on wages and salaries have been collected in respect of all employees in accordance with the system applicable to each case and converted into the equivalent monthly wages and salaries. The data have been tabulated by industry, sex and area separately for government and private employees (see Appendix B : statistical tables 15 - 16). In this chapter, data on the number of male and female employees by wages level or salaries (not including supplementary earnings) and area are presented in Table O.

On the whole, about 40.6% of 17.8 million employees had monthly wages or salaries of 5,501-10,000, Baht around 28.5 % had 2,501-5,500 Baht, about 25.1% had over 10,000 Baht per month and about 5.3% received less than 2,500 Baht per month.

The majority of employees in municipal area had higher level of wages or salaries than their counterpart in the other area. For instance, only about 18.4% of employees in municipal area received monthly wages or salaries, below 5,501 Baht whereas the corresponding figure in non-municipal area was 44.8%. Around 80.8 % of employees in municipal area earned more than 5,500 Baht compared with 54.7 % in non-municipal area. Moreover, about 37.5% of employees in municipal area earned more than 10,000 Baht a month while the percentages in non-municipal area was only 16.1%.

FIGURE 7 PERCENTAGE OF EMPLOYEES BY WAGE OR SALARY / MONTH

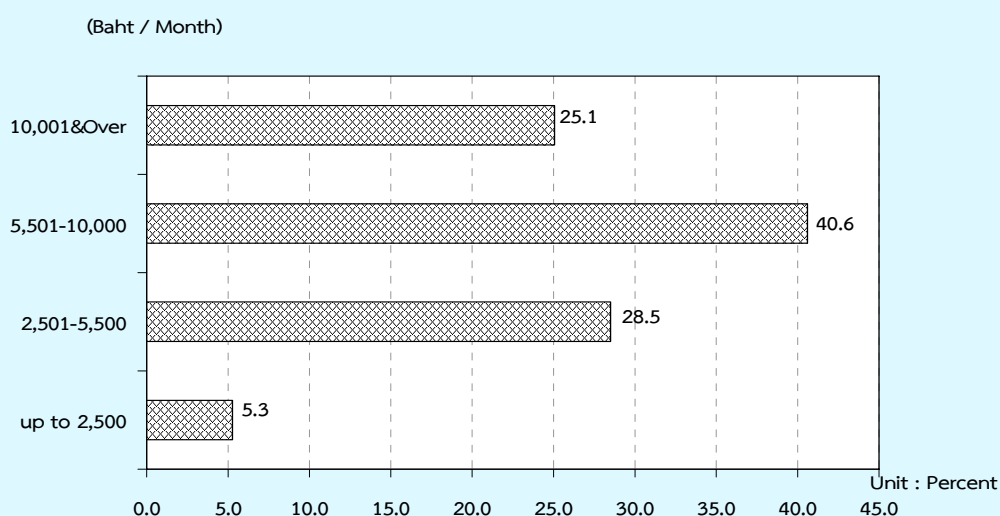


TABLE O NUMBER AND PERCENTAGE OF EMPLOYEES BY WAGE/SALARY, SEX AND AREA

Monthly wage/ Salary level (Baht)	Whole kingdom			Municipal areas			Non- municipal areas		
	Total	Government sector	Private sector	Total	Government sector	Private sector	Total	Government sector	Private sector
Number ('000)									
<b>Total</b>	<b>17,823.1</b>	<b>3,628.7</b>	<b>14,194.4</b>	<b>7,456.6</b>	<b>1,608.7</b>	<b>5,848.0</b>	<b>10,366.5</b>	<b>2,020.0</b>	<b>8,346.5</b>
Up to 2,500	937.7	30.4	907.3	172.5	7.5	164.9	765.2	22.9	742.3
2,501-5,500	5,078.6	412.6	4,666.1	1,201.7	95.4	1,106.3	3,877.0	317.2	3,559.8
5,501-10,000	7,227.3	1,198.7	6,028.6	3,226.6	402.5	2,824.1	4,000.7	796.2	3,204.5
10,001 & Over	4,465.4	1,962.5	2,502.9	2,798.4	1,092.4	1,705.9	1,667.0	870.1	796.9
Unknown	114.1	24.5	89.6	57.6	10.9	46.7	56.5	13.6	42.9
<b>Male</b>	<b>9,977.5</b>	<b>1,907.3</b>	<b>8,070.2</b>	<b>3,952.6</b>	<b>814.3</b>	<b>3,138.4</b>	<b>6,024.9</b>	<b>1,093.0</b>	<b>4,931.9</b>
Up to 2,500	462.8	9.4	453.4	77.1	2.0	75.1	385.7	7.5	378.3
2,501-5,500	2,782.6	245.2	2,537.4	602.2	52.9	549.3	2,180.4	192.3	1,988.1
5,501-10,000	4,212.3	637.4	3,574.8	1,747.5	205.7	1,541.8	2,464.8	431.7	2,033.1
10,001 & Over	2,456.4	1,001.9	1,454.5	1,492.4	547.6	944.8	964.0	454.3	509.7
Unknown	63.5	13.4	50.1	33.5	6.1	27.4	30.0	7.2	22.8
<b>Female</b>	<b>7,845.6</b>	<b>1,721.4</b>	<b>6,124.2</b>	<b>3,504.0</b>	<b>794.4</b>	<b>2,709.6</b>	<b>4,341.6</b>	<b>927.0</b>	<b>3,414.6</b>
Up to 2,500	474.9	21.0	453.9	95.4	5.6	89.8	379.5	15.4	364.1
2,501-5,500	2,296.0	167.4	2,128.7	599.5	42.5	557.0	1,696.5	124.9	1,571.7
5,501-10,000	3,015.1	561.2	2,453.8	1,479.1	196.7	1,282.4	1,535.9	364.5	1,171.4
10,001 & Over	2,009.0	960.6	1,048.4	1,306.0	544.9	761.1	703.0	415.8	287.3
Unknown	50.6	11.1	39.5	24.1	4.7	19.3	26.6	6.4	20.2
Percentage									
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Up to 2,500	5.3	0.8	6.4	2.3	0.5	2.8	7.4	1.1	8.9
2,501-5,500	28.5	11.4	32.9	16.1	5.9	18.9	37.4	15.7	42.7
5,501-10,000	40.6	33.0	42.5	43.3	25.0	48.3	38.6	39.4	38.4
10,001 & Over	25.1	54.1	17.6	37.5	67.9	29.2	16.1	43.1	9.6
Unknown	0.6	0.7	0.6	0.8	0.7	0.8	0.6	0.7	0.5
<b>Male</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Up to 2,500	4.6	0.5	5.6	2.0	0.2	2.4	6.4	0.7	7.7
2,501-5,500	27.9	12.9	31.4	15.2	6.5	17.5	36.2	17.6	40.3
5,501-10,000	42.2	33.4	44.3	44.2	25.3	49.1	40.9	39.5	41.2
10,001 & Over	24.6	52.5	18.0	37.8	67.2	30.1	16.0	41.6	10.3
Unknown	0.6	0.7	0.6	0.9	0.8	0.9	0.5	0.7	0.5
<b>Female</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Up to 2,500	6.1	1.2	7.4	2.7	0.7	3.3	8.7	1.7	10.7
2,501-5,500	29.3	9.7	34.8	17.1	5.4	20.6	39.1	13.5	46.0
5,501-10,000	38.4	32.6	40.1	42.2	24.8	47.3	35.4	39.3	34.3
10,001 & Over	25.6	55.8	17.1	37.3	68.6	28.1	16.2	44.9	8.4
Unknown	0.7	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6

It was observed that, as a whole, government employees got higher level of monthly wages or salaries than the private ones. This partly because, in this survey, the private employees included also those of daily wages employees and laborers who usually earned rather low income. About 39.3 % of the private employees earned less than 5,501 Baht a month as compared with 12.2% of the government employees. On the other hand, the government employees who received over 5,500 Baht per month accounted for about 87.1% of the total

government employees while the private employees only accounted for 60.1%.

## 8. Supplementary benefits

Apart from data on basic wages and salaries, information such as receipt of supplementary benefits in cash i.e. bonuses and overtime payments, and in kind i.e. food, clothing, housing, and others was also collected. The data on number of employees receiving benefits are summarized in Table P.

**TABLE P NUMBER AND PERCENTAGE OF PRIVATE EMPLOYEES AND GOVERNMENT EMPLOYEES BY RECEIVING SUPPLEMENTARY BENEFITS, AREA AND SEX**

(In thousands)

Sector, area and sex	Total employees	Number of employees receiving supplementary benefits <sup>1/</sup>						
		Bonus	Overtime	Other Cash	Food	Clothing	Housing	Others
<b>Total</b>	<b>5,770.8</b>	<b>839.3</b>	<b>1,973.9</b>	<b>2,587.0</b>	<b>1,375.2</b>	<b>193.9</b>	<b>831.0</b>	<b>550.3</b>
		<b>(14.5)</b>	<b>(34.2)</b>	<b>(44.8)</b>	<b>(23.8)</b>	<b>(3.4)</b>	<b>(14.4)</b>	<b>(9.5)</b>
Male	3,021.7	433.0	1,006.5	1,348.1	657.8	93.8	490.6	266.7
		(14.3)	(33.3)	(44.6)	(21.8)	(3.1)	(16.2)	(8.8)
Female	2,749.1	406.3	967.4	1,238.9	717.4	100.1	340.4	283.7
		(14.8)	(35.2)	(45.1)	(26.1)	(3.6)	(12.4)	(10.3)
<b>Private sector</b>	<b>4,426.9</b>	<b>786.5</b>	<b>1,736.8</b>	<b>1,591.9</b>	<b>1,341.1</b>	<b>190.8</b>	<b>606.7</b>	<b>532.1</b>
		<b>(17.8)</b>	<b>(39.2)</b>	<b>(36.0)</b>	<b>(30.3)</b>	<b>(4.3)</b>	<b>(13.7)</b>	<b>(12.0)</b>
Male	2,330.2	404.7	908.1	832.6	647.3	91.3	354.3	255.7
		(17.4)	(39.0)	(35.7)	(27.8)	(3.9)	(15.2)	(11.0)
Female	2,096.7	381.8	828.7	759.3	693.8	99.5	252.4	276.4
		(18.2)	(39.5)	(36.2)	(33.1)	(4.7)	(12.0)	(13.2)
<b>Government sector</b>	<b>1,343.9</b>	<b>52.8</b>	<b>237.1</b>	<b>995.0</b>	<b>34.1</b>	<b>3.1</b>	<b>224.3</b>	<b>18.3</b>
		<b>(3.9)</b>	<b>(17.6)</b>	<b>(74.0)</b>	<b>(2.5)</b>	<b>(0.2)</b>	<b>(16.7)</b>	<b>(1.4)</b>
Male	691.6	28.3	98.4	515.4	10.5	2.5	136.3	11.0
		(4.1)	(14.2)	(74.5)	(1.5)	(0.4)	(19.7)	(1.6)
Female	652.4	24.5	138.7	479.6	23.6	0.7	88.0	7.3
		(3.8)	(21.3)	(73.5)	(3.6)	(0.1)	(13.5)	(1.1)

**TABLE P NUMBER AND PERCENTAGE OF PRIVATE EMPLOYEES AND GOVERNMENT EMPLOYEES  
BY RECEIVING SUPPLEMENTARY BENEFITS, AREA AND SEX (Cont.)**

(In thousands)								
Sector, area and sex	Total	Number of employees receiving supplementary benefits <sup>1/</sup>						
		employees	Bonus	Overtime	Other cash	Food	Clothing	Housing
Private sector								
Municipal areas	2,115.4	390.5	823.2	805.6	578.3	105.2	347.7	202.5
		(18.5)	(38.9)	(38.1)	(27.3)	(5.0)	(16.4)	(9.6)
Male	1,091.9	204.6	437.7	411.9	266.6	52.1	186.7	98.5
		(18.7)	(40.1)	(37.7)	(24.4)	(4.8)	(17.1)	(9.0)
Female	1,023.5	185.9	385.5	393.7	311.7	53.1	160.9	104.1
		(18.2)	(37.7)	(38.5)	(30.5)	(5.2)	(15.7)	(10.2)
Non-municipal areas	2,311.5	396.1	913.6	786.3	762.8	85.5	259.0	329.5
		(17.1)	(39.5)	(34.0)	(33.0)	(3.7)	(11.2)	(14.3)
Male	1,238.3	200.1	470.4	420.7	380.7	39.2	167.6	157.2
		(16.2)	(38.0)	(34.0)	(30.7)	(3.2)	(13.5)	(12.7)
Female	1,073.2	195.9	443.2	365.6	382.1	46.4	91.4	172.3
		(18.3)	(41.3)	(34.1)	(35.6)	(4.3)	(8.5)	(16.1)
Government sector								
Municipal areas	623.6	25.6	118.3	445.8	8.3	2.8	133.4	10.2
		(4.1)	(19.0)	(71.5)	(1.3)	(0.4)	(21.4)	(1.6)
Male	331.2	15.0	56.7	231.9	4.0	2.1	88.1	6.1
		(4.5)	(17.1)	(70.0)	(1.2)	(0.6)	(26.6)	(1.8)
Female	292.4	10.7	61.6	213.9	4.4	0.7	45.3	4.1
		(3.6)	(21.1)	(73.2)	(1.5)	(0.2)	(15.5)	(1.4)
Non-municipal areas	720.3	27.1	118.7	549.3	25.7	0.3	91.0	8.1
		(3.8)	(16.5)	(76.3)	(3.6)	(0.0)	(12.6)	(1.1)
Male	360.3	13.3	41.7	283.6	6.5	0.3	48.2	4.9
		(3.7)	(11.6)	(78.7)	(1.8)	(0.1)	(13.4)	(1.4)
Female	1,080.3	40.9	195.8	815.0	44.9	0.3	133.7	11.3
		(3.8)	(18.1)	(75.4)	(4.2)	(0.0)	(12.4)	(1.0)

1/ One employee can receive more than 1 type of supplementary benefits.



Certain types of supplementary benefits such as food supplies, overtime clothing and bonus seem to be more common in the private sector than in the government sector. Other cash and housing however, seem to be more common in the government sector than in the private sector. The private employees in non-municipal area received more supplementary benefits such as overtime and food supplies than those in municipal area, (about 39.5% and 33.0% respectively).

The private employees in municipal area received more supplementary benefits

such as, other cash, bonus, housing and clothing than those in non-municipal area or about 38.1% for other cash, 18.5% for bonus, 16.4% for housing and 5.0% for clothing. The government employees in municipal area received more supplementary benefits such as housing, overtime, bonus and clothing than those in non-municipal area (about 21.4%, 19.0%, 4.1% and 0.4% respectively). The government employees in non-municipal area received more supplementary benefits, such as other cash and food supplies than those in municipal area or about 76.3% and 3.6% respectively.

# APPENDIX A

## METHODOLOGY

### 1. Sample design

A Stratified Two - Stage Sampling was adopted for the survey. Provinces were constituted strata. The primary and secondary sampling units were enumeration areas (EAs) for municipal areas and non - municipal areas and private households / persons in the collective households respectively.

#### Stratification

Provinces were constituted strata. There were altogether 76 strata. Each stratum was divided into two parts according to the type of local administration, namely municipal areas and non - municipal areas.

#### Selection of primary sampling unit

The sample selection of enumeration areas were performed separately and independently in each part by using probability proportional to size - total number of households. The total sample enumeration areas was 5,970 from 127,460 EAs.

The total number of sample enumeration areas selected for enumeration by region and type of local administration was as follows :

Region / Stratum	Total	Municipal Areas	Non - Municipal Areas
Bangkok Metropolis	300	300	-
Central (Excluding Bangkok Metropolis)	1,902	900	1,002
North	1,278	630	648
Northeast	1,476	732	744
South	1,014	498	516
Total	5,970	3,060	2,910

### Selection of secondary sampling unit

Private households were our ultimate sampling units. A new listing of private households were made for every sample enumeration areas to serve as the sampling frame. In each sample EAs, a systematic sample of private households were selected with the following sample size :

Municipal areas : 16 sample households per EAs

Non - municipal areas : 12 sample households per EAs

Before selecting sample private households in each sample EAs, the list of private households was rearranged by household ' s size - member of the household and type of economic household.

All collective households located within the sample areas were included in the sample and the persons in the collective household were systematically selected for the interviewing.

The total number of sample private households selected for enumeration by region and type of local administration was as follows :

Region / Stratum	Total	Municipal Areas	Non - Municipal Areas
Bangkok Metropolis	4,800	4,800	-
Central (Excluding Bangkok Metropolis)	26,424	14,400	12,024
North	17,856	10,080	7,776
Northeast	20,640	11,712	8,928
South	14,160	7,968	6,192
<b>Total</b>	<b>83,880</b>	<b>48,960</b>	<b>34,920</b>

## 2. Method of estimation

The survey results were presented at provincial level and regional level. At regional level, the results were presented separately for the Bangkok Metropolis and the remaining 75 provinces were classified by region, municipal areas and non-municipal areas.

Let  $g = 1, 2, 3, \dots, 20$  (age - sex group)  
 $k = 1, 2, 3, \dots, m_{hij}$  (sample EAs)  
 $j = 1, 2$  (type of local administration)  
 $i = 1, 2, 3, \dots, A_h$  (province)  
 $h = 1, 2, 3, 4, 5$  (region)

### Estimate of the total number of persons with characteristic X

1. Adjusted estimate of the total number of persons with characteristic X for the  $g^{th}$  age - sex group,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region was based on the formula :

$$x''_{hijg} = \frac{x'_{hijg}}{y'_{hijg}} Y_{hijg} = r_{hijg} Y_{hijg} \dots\dots\dots (1)$$

where  $x'_{hijg}$  is the ordinary estimate of the total number of persons with characteristic X for the  $g^{th}$  age - sex group,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

$y'_{hijg}$  is the ordinary estimate of the total population for the  $g^{th}$  age - sex group,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

$Y_{hijg}^{\frac{L1}{}}$  is the estimate, based on the population projection of the total population for the  $g^{th}$  age - sex group,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

$r_{hijg}$  is the ratio of the estimate of the total number of persons with characteristic X to the estimate of the total population for the  $g^{th}$  age - sex group,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

The formula of the estimate from a stratified two-stage sampling was as follows.

$$i) \quad x'_{hijg} = \frac{1}{m_{hij}} \sum_{k=1}^{m_{hij}} \frac{1}{P_{hijk}} \frac{N_{hijk}}{n_{hijk}} x_{hijk}g \quad \dots\dots\dots (2)$$

where  $x_{hijk}g$  is the total number of persons with characteristic  $X$  for the  $g^{th}$  age-sex group,  $k^{th}$  sample EAs,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

$N_{hijk}$  is the total number of listing households in the  $k^{th}$  sample EAs,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

$n_{hijk}$  is the total number of sample households in the  $k^{th}$  sample EAs,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

$P_{hijk}$  is the probability of selection of the  $k^{th}$  sample EAs,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

$m_{hij}$  is the total number of sample EAs in the  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

$$ii) \quad y'_{hijg} = \frac{1}{m_{hij}} \sum_{k=1}^{m_{hij}} \frac{1}{P_{hijk}} \frac{N_{hijk}}{n_{hijk}} y_{hijk}g \quad \dots\dots\dots (3)$$

where  $y_{hijk}g$  is the total number of the population enumerated for the  $g^{th}$  age - sex group,  $k^{th}$  sample EAs,  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region.

2. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $j^{th}$  area,  $i^{th}$  province,  $h^{th}$  region was based on the formula :

$$x''_{hij} = \sum_{g=1}^{20} x''_{hijg} \quad \dots\dots\dots (4)$$

3. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $g^{th}$  age - sex group,  $i^{th}$  province,  $h^{th}$  region was based on the formula :

$$x''_{hig} = \sum_{j=1}^2 x''_{hijg} \quad \dots\dots\dots (5)$$

4. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $i^{th}$  province,  $h^{th}$  region was based on the formula :

$$x''_{hi} = \sum_{j=1}^2 x''_{hij} = \sum_{g=1}^{20} x''_{hig} \quad \dots\dots\dots (6)$$

5. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $g^{th}$  age - sex group,  $j^{th}$  area,  $h^{th}$  region was based on the formula :

$$x''_{h j g} = \sum_{i=1}^{A_h} x''_{hijg} \quad \dots\dots\dots (7)$$

where  $A_h$  is the total number of provinces in the  $h^{th}$  region and  $\sum_{h=1}^5 A_h = 76$

6. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $j^{th}$  area,  $h^{th}$  region was based on the formula :

$$x''_{hj} = \sum_{i=1}^{A_h} x''_{hij} = \sum_{g=1}^{20} x''_{h j g} \quad \dots\dots\dots (8)$$

7. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $g^{th}$  age - sex group,  $h^{th}$  region was based on the formula :

$$x''_{hg} = \sum_{i=1}^{A_h} x''_{hig} = \sum_{j=1}^2 x''_{h j g} \quad \dots\dots\dots (9)$$

8. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $h^{th}$  region was based on the formula :

$$x_h'' = \sum_{i=1}^{A_h} x_{hi}'' = \sum_{j=1}^2 x_{hj}'' = \sum_{g=1}^{20} x_{hg}'' \quad \dots\dots\dots (10)$$

9. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $j^{th}$  area was based on the formula :

$$x_j'' = \sum_{h=1}^5 x_{hj}'' \quad \dots\dots\dots (11)$$

10. Adjusted estimate of the total number of persons with characteristic  $X$  for the  $g^{th}$  age - sex group of the whole kingdom was based on the formula :

$$x_g'' = \sum_{h=1}^5 x_{hg}'' \quad \dots\dots\dots (12)$$

11. Adjusted estimate of the total number of persons with characteristic  $X$  for the whole kingdom was based on the formula :

$$x'' = \sum_{h=1}^5 x_h'' = \sum_{j=1}^2 x_j'' = \sum_{g=1}^{20} x_g'' \quad \dots\dots\dots (13)$$

### Estimate of Variance of the Total Number of Persons with Characteristic $X$

1. The estimate variance of  $x_{hijg}''$  was

$$\hat{V}(x_{hijg}'') = \left[ \frac{Y_{hijg}}{y_{hijg}'} \right]^2 \frac{m_{hij}}{m_{hij} - 1} \sum_{k=1}^{m_{hij}} z_{hijkg}^2 \quad \dots\dots\dots (14)$$

where

$$z_{hijkg} = \bar{x}_{hijkg}' - r_{hijg} \bar{y}_{hijkg}'$$

$$\bar{x}_{hijkg}' = \frac{1}{m_{hij}} \frac{1}{P_{hijk}} \frac{N_{hijk}}{n_{hijk}} x_{hijkg}$$

$$\bar{y}_{hijkg}' = \frac{1}{m_{hij}} \frac{1}{P_{hijk}} \frac{N_{hijk}}{n_{hijk}} y_{hijkg}$$

2. The estimate variance of  $x''_{hij}$  was

$$\hat{V}(x''_{hij}) = \sum_{g=1}^{20} \hat{V}(x''_{hijg}) \quad \dots\dots\dots (15)$$

3. The estimate variance of  $x''_{hig}$  was

$$\hat{V}(x''_{hig}) = \sum_{j=1}^2 \hat{V}(x''_{hijg}) \quad \dots\dots\dots (16)$$

4. The estimate variance of  $x''_{hi}$  was

$$\hat{V}(x''_{hi}) = \sum_{j=1}^2 \hat{V}(x''_{hij}) = \sum_{g=1}^{20} \hat{V}(x''_{hig}) \quad \dots\dots\dots (17)$$

5. The estimate variance of  $x''_{h jg}$  was

$$\hat{V}(x''_{h jg}) = \sum_{i=1}^{A_h} \hat{V}(x''_{hijg}) \quad \dots\dots\dots (18)$$

6. The estimate variance of  $x''_{hj}$  was

$$\hat{V}(x''_{hj}) = \sum_{i=1}^{A_h} \hat{V}(x''_{hij}) = \sum_{g=1}^{20} \hat{V}(x''_{h jg}) \quad \dots\dots\dots (19)$$

7. The estimate variance of  $x''_{hg}$  was

$$\hat{V}(x''_{hg}) = \sum_{i=1}^{A_h} \hat{V}(x''_{hig}) = \sum_{j=1}^2 \hat{V}(x''_{h jg}) \quad \dots\dots\dots (20)$$

8. The estimate variance of  $x''_h$  was

$$\hat{V}(x''_h) = \sum_{i=1}^{A_h} \hat{V}(x''_{hi}) = \sum_{j=1}^2 \hat{V}(x''_{hj}) = \sum_{g=1}^{20} \hat{V}(x''_{hg}) \quad \dots\dots\dots (21)$$



9. The estimate variance of  $x_j''$  was

$$\hat{V}(x_j'') = \sum_{h=1}^5 \hat{V}(x_{hj}'') \dots\dots\dots (22)$$

10. The estimate variance of  $x_g''$  was

$$\hat{V}(x_g'') = \sum_{h=1}^5 \hat{V}(x_{hg}'') \dots\dots\dots (23)$$

11. The estimate variance of  $x''$  was

$$\hat{V}(x'') = \sum_{h=1}^5 \hat{V}(x_h'') = \sum_{j=1}^2 \hat{V}(x_j'') = \sum_{g=1}^{20} \hat{V}(x_g'') \dots\dots\dots (24)$$

### Estimate of Coefficient of Variation of the Total Number of Persons with Characteristic $X$

1. The estimate coefficient of variation of  $x_{hijg}''$  was

$$cv(x_{hijg}'') = \frac{\sqrt{\hat{V}(x_{hijg}'')}}{x_{hijg}''} \times 100\% \dots\dots\dots (25)$$

2. The estimate coefficient of variation of  $x_{hij}''$  was

$$cv(x_{hij}'') = \frac{\sqrt{\hat{V}(x_{hij}'')}}{x_{hij}''} \times 100\% \dots\dots\dots (26)$$

3. The estimate coefficient of variation of  $x_{hig}''$  was

$$cv(x_{hig}'') = \frac{\sqrt{\hat{V}(x_{hig}'')}}{x_{hig}''} \times 100\% \dots\dots\dots (27)$$

4. The estimate coefficient of variation of  $x''_{hi}$  was

$$cv(x''_{hi}) = \frac{\sqrt{\hat{V}(x''_{hi})}}{x''_{hi}} \times 100\% \quad \dots\dots\dots (28)$$

5. The estimate coefficient of variation of  $x''_{h j g}$  was

$$cv(x''_{h j g}) = \frac{\sqrt{\hat{V}(x''_{h j g})}}{x''_{h j g}} \times 100\% \quad \dots\dots\dots (29)$$

6. The estimate coefficient of variation of  $x''_{h j}$  was

$$cv(x''_{h j}) = \frac{\sqrt{\hat{V}(x''_{h j})}}{x''_{h j}} \times 100\% \quad \dots\dots\dots (30)$$

7. The estimate coefficient of variation of  $x''_{h g}$  was

$$cv(x''_{h g}) = \frac{\sqrt{\hat{V}(x''_{h g})}}{x''_{h g}} \times 100\% \quad \dots\dots\dots (31)$$

8. The estimate coefficient of variation of  $x''_h$  was

$$cv(x''_h) = \frac{\sqrt{\hat{V}(x''_h)}}{x''_h} \times 100\% \quad \dots\dots\dots (32)$$

9. The estimate coefficient of variation of  $x''_j$  was

$$cv(x''_j) = \frac{\sqrt{\hat{V}(x''_j)}}{x''_j} \times 100\% \quad \dots\dots\dots (33)$$

10. The estimate coefficient of variation of  $x''_g$  was

$$cv(x''_g) = \frac{\sqrt{\hat{V}(x''_g)}}{x''_g} \times 100\% \quad \dots\dots\dots (34)$$

11. The estimate coefficient of variation of  $x''$  was

$$cv(x'') = \frac{\sqrt{\hat{V}(x'')}}{x''} \times 100\% \quad \dots\dots\dots (35)$$

### 3. Data Collection

Labor force information for this survey quarterly which was conducted during the 1<sup>st</sup>-12<sup>th</sup> of January-March 2012 was obtained through interviews head or member of households of 4,800 households in the Bangkok, 48,960 households in other municipal areas and 34,920 households in non-municipal areas or a total of 83,880 households throughout the kingdom. Forty four enumerators with previous experience in survey operations were employed in the Bangkok, while in the other provinces (changwats), the field staff comprised 830 enumerators.

### 4. In round figures

In the statistical tables, all absolute figures are independently rounded to the nearest thousand; hence the group total may not always be equal to the sum of the individual figures.

## Coefficient of Variation (CV) of the Total Number of Persons by Labor force status, Age group and areas

## Whole kingdom

Whole kingdom	Age group	C.V.%								
		Total labor force			Employed			Unemployed		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	Total	0.15	0.16	0.26	0.16	0.17	0.27	5.57	7.52	8.17
	15-17	2.75	3.24	5.14	2.83	3.35	5.26	19.77	*	*
	18-19	1.82	1.95	3.82	1.93	2.09	4.02	18.88	*	*
	20-24	0.70	0.76	1.30	0.75	0.84	1.37	10.87	14.32	16.53
	25-29	0.37	0.35	0.70	0.41	0.43	0.75	12.89	18.15	17.61
	30-34	0.32	0.32	0.57	0.34	0.36	0.60	14.56	18.44	*
	35-39	0.30	0.27	0.55	0.31	0.31	0.56	15.22	*	*
	40-49	0.24	0.20	0.46	0.25	0.22	0.47	16.43	*	*
	50-59	0.33	0.31	0.62	0.35	0.34	0.65	*	*	*
	60 and over	0.75	0.92	1.25	0.77	0.95	1.28	*	*	*

## Municipal areas

Total	0.21	0.24	0.36	0.22	0.25	0.37	6.23	7.96	10.01
15-17	4.47	5.43	7.84	4.53	5.49	7.97	*	*	*
18-19	2.80	3.22	5.23	2.93	3.39	5.42	*	*	*
20-24	1.09	1.49	1.58	1.11	1.53	1.61	10.05	12.63	16.34
25-29	0.41	0.46	0.70	0.44	0.50	0.74	12.27	16.48	18.37
30-34	0.40	0.34	0.74	0.41	0.36	0.76	19.59	*	*
35-39	0.42	0.37	0.76	0.44	0.42	0.78	*	*	*
40-49	0.37	0.29	0.71	0.38	0.31	0.71	*	*	*
50-59	0.56	0.57	1.02	0.58	0.59	1.03	*	*	*
60 and over	1.29	1.68	2.01	1.31	1.70	2.04	*	*	*

## Non-municipal areas

Total	0.20	0.21	0.36	0.21	0.23	0.37	7.71	10.56	11.04
15-17	3.32	3.88	6.37	3.44	4.02	6.55	*	*	*
18-19	2.26	2.37	4.92	2.41	2.55	5.24	*	*	*
20-24	0.87	0.88	1.73	0.94	1.00	1.83	15.27	19.61	*
25-29	0.51	0.47	1.02	0.58	0.59	1.10	18.31	*	*
30-34	0.45	0.46	0.82	0.49	0.54	0.86	19.02	*	*
35-39	0.41	0.37	0.75	0.42	0.42	0.77	*	*	*
40-49	0.32	0.27	0.61	0.33	0.29	0.63	*	*	*
50-59	0.41	0.37	0.78	0.44	0.41	0.82	*	*	*
60 and over	0.91	1.10	1.55	0.94	1.13	1.60	*	*	*

Remark : \* C.V.more than 20%

Coefficient of Variation (CV) of the Total Number of Persons by Labor force status, Age group

Bangkok Metropolis

Bangkok	Age group	C.V.%								
		Total labor force			Employed			Unemployed		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
	รวม	0.52	0.58	0.86	0.52	0.60	0.87	13.98	17.29	*
	15-17	15.50	18.53	*	15.56	18.63	*	*	*	*
	18-19	7.73	9.57	12.80	8.51	11.03	13.29	*	*	*
	20-24	3.58	5.69	4.28	3.63	5.72	4.42	*	*	*
	25-29	1.08	1.31	1.68	1.13	1.38	1.76	*	*	*
	30-34	0.86	0.80	1.49	0.91	0.82	1.57	*	*	*
	35-39	0.92	0.78	1.66	0.95	0.91	1.66	*	*	*
	40-49	0.89	0.68	1.65	0.90	0.70	1.66	*	*	*
	50-59	1.46	1.42	2.71	1.48	1.46	2.73	*	*	*
	60 and over	4.17	5.44	6.47	4.17	5.44	6.47	*	*	*

Remark : \* C.V.more than 20%

## Coefficient of Variation (CV) of the Total Number of Persons by Labor force status, Age group and areas

Central Region										
Central Region	Age group	C.V.%								
		Total labor force			Employed			Unemployed		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	Total	0.23	0.26	0.40	0.24	0.27	0.41	7.72	9.71	12.71
	15-17	4.42	5.19	8.00	4.52	5.32	8.16	*	*	*
	18-19	2.89	3.13	5.85	3.04	3.27	6.22	*	*	*
	20-24	1.00	1.21	1.65	1.03	1.26	1.70	13.73	17.08	*
	25-29	0.49	0.47	0.89	0.53	0.54	0.94	15.82	*	*
	30-34	0.43	0.42	0.78	0.46	0.49	0.80	*	*	*
	35-39	0.39	0.36	0.71	0.42	0.41	0.75	*	*	*
	40-49	0.39	0.31	0.73	0.39	0.33	0.73	*	*	*
	50-59	0.60	0.62	1.07	0.60	0.63	1.07	*	*	*
	60 and over	1.42	1.84	2.20	1.42	1.84	2.21	*	*	*
Municipal areas										
	Total	0.38	0.44	0.63	0.38	0.45	0.64	10.56	13.07	17.92
	15-17	7.99	9.81	13.72	8.12	10.04	13.75	*	*	*
	18-19	5.24	5.98	9.86	5.31	6.02	10.10	*	*	*
	20-24	1.72	2.42	2.44	1.77	2.45	2.55	16.51	18.49	*
	25-29	0.65	0.70	1.11	0.70	0.78	1.17	*	*	*
	30-34	0.67	0.51	1.30	0.68	0.55	1.29	*	*	*
	35-39	0.69	0.65	1.26	0.78	0.75	1.41	*	*	*
	40-49	0.63	0.52	1.19	0.64	0.55	1.20	*	*	*
	50-59	1.04	1.18	1.74	1.04	1.18	1.74	*	*	*
	60 and over	2.57	3.24	4.10	2.58	3.25	4.12	*	*	*
Non-municipal areas										
	Total	0.29	0.32	0.52	0.30	0.34	0.52	10.91	13.90	17.58
	15-17	5.31	6.12	9.74	5.43	6.27	10.03	*	*	*
	18-19	3.46	3.63	7.27	3.71	3.87	7.88	*	*	*
	20-24	1.22	1.35	2.18	1.27	1.45	2.22	*	*	*
	25-29	0.68	0.62	1.27	0.74	0.73	1.35	*	*	*
	30-34	0.56	0.59	0.98	0.61	0.71	1.03	*	*	*
	35-39	0.46	0.42	0.84	0.47	0.46	0.85	*	*	*
	40-49	0.49	0.39	0.92	0.50	0.41	0.93	*	*	*
	50-59	0.74	0.71	1.36	0.74	0.72	1.36	*	*	*
	60 and over	1.70	2.23	2.60	1.71	2.24	2.62	*	*	*

Remark : \* C.V.more than 20%

## Coefficient of Variation (CV) of the Total Number of Persons by Labor force status, Age group and areas

Northern Region										
Northern Region	Age group	C.V.%								
		Total labor force			Employed			Unemployed		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	Total	0.29	0.32	0.52	0.31	0.35	0.53	12.62	16.64	19.24
	15-17	6.45	7.51	12.53	6.55	7.64	12.63	*	*	*
	18-19	3.67	3.79	8.24	3.71	3.83	8.45	*	*	*
	20-24	1.44	1.45	2.88	1.55	1.65	2.98	*	*	*
	25-29	0.68	0.51	1.42	0.78	0.74	1.51	*	*	*
	30-34	0.68	0.60	1.32	0.71	0.70	1.34	*	*	*
	35-39	0.62	0.61	1.12	0.66	0.69	1.16	*	*	*
	40-49	0.42	0.33	0.79	0.43	0.35	0.80	*	*	*
	50-59	0.59	0.60	1.05	0.61	0.61	1.09	*	*	*
	60 and over	1.46	1.85	2.37	1.48	1.88	2.40	*	*	-
Municipal areas										
	Total	0.42	0.49	0.70	0.43	0.51	0.72	14.44	18.37	*
	15-17	10.66	13.06	18.33	10.82	13.33	18.33	-	-	-
	18-19	6.46	6.82	13.37	6.67	7.07	13.78	*	*	*
	20-24	2.59	3.40	3.99	2.69	3.54	4.14	*	*	*
	25-29	0.88	1.11	1.40	1.03	1.31	1.61	*	*	*
	30-34	0.81	0.50	1.64	0.82	0.57	1.64	*	*	*
	35-39	0.79	0.96	1.25	0.81	0.97	1.32	*	*	-
	40-49	0.69	0.48	1.32	0.72	0.56	1.34	*	*	*
	50-59	0.92	1.08	1.53	0.95	1.11	1.58	*	*	*
	60 and over	1.93	2.36	3.17	1.94	2.39	3.17	*	*	-
Non-municipal areas										
	Total	0.37	0.40	0.66	0.38	0.43	0.67	16.05	*	*
	15-17	7.31	8.38	14.73	7.40	8.50	14.90	*	*	*
	18-19	4.26	4.37	9.82	4.30	4.40	10.08	*	-	*
	20-24	1.68	1.60	3.47	1.82	1.86	3.61	*	*	*
	25-29	0.87	0.57	1.91	1.00	0.89	2.02	*	*	*
	30-34	0.88	0.79	1.73	0.93	0.93	1.75	*	*	*
	35-39	0.80	0.76	1.47	0.85	0.87	1.52	*	*	*
	40-49	0.52	0.42	0.97	0.53	0.43	0.97	*	-	*
	50-59	0.72	0.71	1.31	0.75	0.73	1.36	*	*	*
	60 and over	1.85	2.32	3.03	1.87	2.35	3.07	*	*	-

Remark : \* C.V.more than 20%

## Coefficient of Variation (CV) of the Total Number of Persons by Labor force status, Age group and areas

Northeastern Region										
Northeastern Region	Age group	C.V.%								
		Total labor force			Employed			Unemployed		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	Total	0.32	0.34	0.59	0.35	0.38	0.63	11.20	14.73	16.24
	15-17	5.36	6.48	9.52	5.64	6.87	9.85	*	*	*
	18-19	3.97	4.19	8.60	4.36	4.66	9.49	*	*	*
	20-24	1.44	1.46	2.94	1.61	1.72	3.14	*	*	*
	25-29	0.85	0.82	1.65	0.98	1.04	1.80	*	*	*
	30-34	0.76	0.82	1.38	0.85	0.96	1.48	*	*	*
	35-39	0.69	0.64	1.28	0.72	0.72	1.31	*	*	*
	40-49	0.53	0.45	1.03	0.57	0.52	1.09	*	*	*
	50-59	0.66	0.56	1.30	0.72	0.66	1.42	*	*	*
	60 and over	1.33	1.55	2.43	1.41	1.65	2.60	*	*	*
Municipal areas										
	Total	0.39	0.44	0.67	0.41	0.47	0.69	11.56	15.49	17.17
	15-17	7.04	8.15	12.92	7.13	8.06	13.53	*	-	*
	18-19	5.01	5.83	9.63	5.41	6.30	10.46	*	*	*
	20-24	2.13	2.48	3.73	2.24	2.74	3.75	19.51	*	*
	25-29	0.89	1.03	1.52	0.98	1.12	1.68	*	*	*
	30-34	0.83	0.88	1.47	0.87	0.98	1.50	*	*	*
	35-39	0.70	0.78	1.20	0.74	0.83	1.24	*	*	*
	40-49	0.63	0.54	1.18	0.66	0.61	1.20	*	*	*
	50-59	0.85	0.81	1.58	0.90	0.91	1.65	*	*	-
	60 and over	1.95	2.37	3.30	2.08	2.51	3.55	*	-	*
Non-municipal areas										
	Total	0.39	0.40	0.72	0.42	0.45	0.77	13.04	16.89	19.44
	15-17	6.33	7.53	11.66	6.71	8.09	11.99	*	*	*
	18-19	4.65	4.90	10.06	5.12	5.46	11.17	*	*	*
	20-24	1.68	1.68	3.54	1.89	1.98	3.79	*	*	*
	25-29	1.04	0.98	2.06	1.21	1.27	2.26	*	*	*
	30-34	0.94	1.00	1.70	1.05	1.18	1.85	*	*	*
	35-39	0.85	0.77	1.59	0.89	0.88	1.63	*	*	*
	40-49	0.65	0.55	1.27	0.70	0.63	1.35	*	*	*
	50-59	0.79	0.67	1.59	0.88	0.79	1.75	*	*	*
	60 and over	1.56	1.80	2.92	1.66	1.91	3.12	*	*	*

Remark : \* C.V.more than 20%



# Coefficient of Variation (CV) of the Total Number of Persons by Labor force status, Age group and areas

## Southern Region

Southern Region	Age group	C.V. %								
		Total labor force			Employed			Unemployed		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	Total	0.35	0.37	0.64	0.36	0.38	0.65	14.92	*	*
	15-17	5.72	6.03	13.33	5.85	6.16	13.59	*	*	*
	18-19	3.56	3.77	7.54	3.76	4.07	7.78	*	*	*
	20-24	1.53	1.58	3.00	1.61	1.66	3.19	*	*	*
	25-29	0.86	0.76	1.71	0.91	0.74	1.85	*	*	*
	30-34	0.67	0.57	1.33	0.67	0.57	1.33	*	*	*
	35-39	0.63	0.51	1.22	0.64	0.51	1.24	*	*	*
	40-49	0.53	0.41	1.01	0.53	0.41	1.02	*	*	*
	50-59	0.69	0.64	1.27	0.70	0.69	1.29	*	*	*
	60 and over	1.80	2.09	3.10	1.80	2.09	3.11	*	-	*
Municipal areas										
	Total	0.53	0.57	0.93	0.53	0.57	0.93	19.05	*	*
	15-17	9.40	11.13	17.53	9.55	11.31	17.81	*	*	*
	18-19	6.82	8.08	12.15	6.91	8.25	12.15	*	*	-
	20-24	2.43	3.09	3.86	2.40	3.13	3.74	*	*	*
	25-29	1.04	0.80	2.06	1.09	0.82	2.17	*	*	*
	30-34	0.83	0.41	1.75	0.84	0.46	1.76	*	*	*
	35-39	1.05	0.68	2.08	1.05	0.68	2.10	*	*	*
	40-49	0.90	0.76	1.71	0.90	0.75	1.71	*	*	*
	50-59	1.25	0.79	2.52	1.25	0.79	2.53	*	*	*
	60 and over	2.89	3.71	4.50	2.89	3.71	4.51	*	-	*
Non-municipal areas										
	Total	0.44	0.46	0.80	0.45	0.47	0.83	19.01	*	*
	15-17	6.77	7.01	16.05	6.92	7.18	16.38	*	*	*
	18-19	4.13	4.26	9.17	4.40	4.65	9.54	*	*	*
	20-24	1.88	1.84	3.87	2.00	1.94	4.17	*	*	*
	25-29	1.12	0.99	2.26	1.19	0.97	2.45	*	*	*
	30-34	0.87	0.77	1.72	0.88	0.77	1.73	*	0.00	*
	35-39	0.78	0.66	1.50	0.79	0.66	1.52	*	*	*
	40-49	0.64	0.48	1.24	0.64	0.48	1.25	*	*	*
	50-59	0.82	0.83	1.47	0.84	0.90	1.50	*	*	*
	60 and over	2.18	2.47	3.84	2.18	2.47	3.85	*	-	*

Remark : \* C.V.more than 20%