METHODOLOGY

1. Sample Design

The survey covered the 210 type of economic activities (4 digits code) and the establishments engaged in the economic with 1 person and over at work in municipal area. A Stratified Systematic Sampling was adopted for the survey. Provinces were constituted strata while type of economic activities and group of establishment were constituted sub-stratum. The sampling units were establishments.

Stratification

Provinces were constituted strata. There were altogether 76 strata. Establishment in each stratum was divided in 210 type of economic activities (4 digits code) and 12 groups according to number of workers as follows:

Group	1	2	3	4	5	6	7	8	9	10	11	12
Number of workers	1-5	6-10	11-15	16-20	21-25	26-30	31-50	51-100	101-200	201-500	501-1,000	> 1,000

Selection of Sampling Unit

The sample selection of establishments were performed separately and independently in each type of economic activities (4 digits code) and group of establishment. They were selected by using systematic sampling. The total sample establishments were 70,811 from 824,515 establishments.

The total number of sample establishments selected for enumeration by region and group was as follows :

Region	Group												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
1. Bangkok	1,697	1,139	816	1,143	759	921	1,413	945	596	548	165	122	10,264
2. Vicinity	2,699	971	636	808	511	386	836	654	479	395	150	86	8,611
3. Central	8,471	1,865	982	723	490	299	611	479	396	247	75	57	14,695
4. Northern	7,962	1,541	796	546	343	204	455	331	227	116	22	15	12,558
5. Northeastern	9,246	1,750	922	643	395	221	488	374	229	110	20	14	14,412
6. Southern	6,409	1,191	622	508	290	215	414	274	189	113	35	11	10,271
Whole Kingdom	36,484	8,457	4,774	4,371	2,788	2,246	4,217	3,057	2,116	1,529	467	305	70,811

2. Method of Estimation

        The survey results were presented at regional level. The results were presented separately for Bangkok, Vicinity (Samut Prakan province, Nonthaburi province, Pathum Thani province, Nakhon Pathom province and Samut Sakhon province) and the remaining provinces were classified by region. Each report was divided into 6 parts according to the number of workers as follows :

Group	1	2	3	4	5	6
Number of workers	1 – 15	16 – 25	26 – 30	31 – 50	51 – 200	> 200

The estimation establishment was divided into 12 parts correspond with sample design.

$$
\begin{aligned}
\text{Let} \quad m &= 1,2,3,\ldots,n_{hijl} \quad \text{(sample establishment)} \\
l &= 1,2,3,\ldots,12 \quad \text{(establishment group)} \\
k &= 1,2,3,\ldots,38 \quad \text{(type of economic activity with 2 digits code)} \\
j &= 1,2,3,\ldots,210 \quad \text{(type of economic activity with 4 digits code)} \\
i &= 1,2,3,\ldots,A_h \quad \text{(province)} \\
h &= 1,2,3,4,5,6 \quad \text{(region)}
\end{aligned}
$$

1) Estimate of the Total Number of Characteristic X for the Type of Economic Activities with 4 Digits Code

        1.1   The estimated total number of characteristic X of establishment for the lth group, j^{th} type, h^{th} region was based on the formula :

$$
\hat{X}_{hjl} = \sum_{i=1}^{A_h} \hat{X}_{hijl}
$$

where $\hat{X}_{hijl}$ is the estimated total number of characteristic X of establishment for the lth group, j^{th} type, i^{th} province , h^{th} region .

$$
\hat{X}_{hijl} = \sum_{m=1}^{n_{hijl}} w_{hijl} x_{hijlm}
$$

x_{hijlm} is the value of characteristic X for the mth establishment, l^{th} group, j^{th} type, i^{th} province , h^{th} region.

w_{hijl} is the weighting factor of the establishments for the lth group, j^{th} type, i^{th} province, h^{th} region.

$$w_{hijl} = \frac{N_{hijl}}{n_{hijl}}$$

N_{hijl} is the total number of the establishments for the lth group, j^{th} type, i^{th} province, h^{th} region.

n_{hijl} is the total number of sample establishments for the lth group, j^{th} type, i^{th} province, h^{th} region.

A_h is the total number of provinces in the hth region and $\sum_{h=1}^{6} A_h = 76$

1.2 The estimated total number of characteristic X of establishment for j^{th} type, which present 6 groups for h^{th} region and whole kingdom was based on the formula :

Group		Regional level	Whole Kingdom
1) 1 - 15 workers	$l = 1, 2, 3$	$\hat{X}'_{hj1} = \sum_{l=1}^{3} \hat{X}_{hjl}$	$\sum_{h=1}^{6} \hat{X}'_{hj1}$
2) 16 - 25 workers	$l = 4, 5$	$\hat{X}'_{hj2} = \sum_{l=4}^{5} \hat{X}_{hjl}$	$\sum_{h=1}^{6} \hat{X}'_{hj2}$
3) 26 - 30 workers	$l = 6$	$\hat{X}'_{hj3} = \hat{X}_{hj6}$	$\sum_{h=1}^{6} \hat{X}'_{hj3}$
4) 31 - 50 workers	$l = 7$	$\hat{X}'_{hj4} = \hat{X}_{hj7}$	$\sum_{h=1}^{6} \hat{X}'_{hj4}$
5) 51 - 200 workers	$l = 8, 9$	$\hat{X}'_{hj5} = \sum_{l=8}^{9} \hat{X}_{hjl}$	$\sum_{h=1}^{6} \hat{X}'_{hj5}$
6) > 200 workers	$l = 10, 11, 12$	$\hat{X}'_{hj6} = \sum_{l=10}^{12} \hat{X}_{hjl}$	$\sum_{h=1}^{6} \hat{X}'_{hj6}$

2) Estimate of the Total Number of Characteristic _X_ for the Type of Economic Activities with 2 Digits Code

2.1 The estimated total number of characteristic _X_ of establishment for the lth group, k^{th} type, h^{th} region was based on the formula :

$$\hat{X}_{hkl} = \sum_{j=1}^{A_k} \hat{X}_{hjl}$$

where A_k is the total number of type of economic activities with 4 digits code, which were grouped into 2 digits code

2.2 The estimated total number of characteristic _X_ of establishment for k^{th} type, which present 6 groups for h^{th} region and whole kingdom was based on the formula :

Group		Regional level	Whole Kingdom
1) 1 - 15 workers	$l = 1, 2, 3$	$\hat{X}'_{hk1} = \sum_{l=1}^{3} \hat{X}_{hkl}$	$\sum_{h=1}^{6} \hat{X}'_{hk1}$
2) 16 - 25 workers	$l = 4, 5$	$\hat{X}'_{hk2} = \sum_{l=4}^{5} \hat{X}_{hkl}$	$\sum_{h=1}^{6} \hat{X}'_{hk2}$
3) 26 - 30 workers	$l = 6$	$\hat{X}'_{hk3} = \hat{X}_{hk6}$	$\sum_{h=1}^{6} \hat{X}'_{hk3}$
4) 31 - 50 workers	$l = 7$	$\hat{X}'_{hk4} = \hat{X}_{hk7}$	$\sum_{h=1}^{6} \hat{X}'_{hk4}$
5) 51 - 200 workers	$l = 8, 9$	$\hat{X}'_{hk5} = \sum_{l=8}^{9} \hat{X}_{hkl}$	$\sum_{h=1}^{6} \hat{X}'_{hk5}$
6) > 200 workers	$l = 10, 11, 12$	$\hat{X}'_{hk6} = \sum_{l=10}^{12} \hat{X}_{hkl}$	$\sum_{h=1}^{6} \hat{X}'_{hk6}$

3. Data Collection

The interviewing method was employed in data collection. The enumerators who are permanent and temporary staff of the National Statistical Office were sent out to interview the owners or the entrepreneurs of the sampled establishments during April 1 to June 30, 2007

4. Data Processing

Information of the establishments in provincial areas was processed at the provincial office with the technical supports from the central office e.g. preparation of the software programs for data entry and tabulation, and drafting form of the report. Those data for regions and the whole kingdom, as well as the detailed information of the establishments were processed at the central office.

5. In Round Figures

The summation of each amount may not equal to the total due to rounding.

6. Limitations of the Data

Data presented in this report might be subject to sampling and non-sampling errors. For instance, errors from the imputation for missing values and non-response, intentional misreporting and errors arising at coding and data entry stages. However, the NSO tried its best to minimize such errors, thus the data should be used with appropriate cautions.

7. Data Presentation and Reporting

Results of the basic information of establishment are presented into 3 levels of publication

1) Preliminary report.

2) Provincial level report consists of totally 75 volumes.

3) Regional level report of consists of 6 volumes, i.e. Bangkok, Vicinity, Central, Northern, Northeastern and Southern Regions.

4) Whole Kingdom level report.