

**Sampling Survey on Hotels Industry in China**

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### **1. Introduction**

Chinese tourism industry developed rapidly in recent years, thus promoting development of hotels industry and raising new demand for development plan on national tourism and relevant statistical survey. Before 1999, although tourist's hotels had been included in the annual statistical scope of National Tourism Administration (NTA), non- tourist hotels had not and hotel statistical survey had not been included in state statistical regular survey system of National Bureau of Statistics (NBS) of China. The three departments of China, NBS, NTA and State Administration for Industry and Commerce (SAIC) conducted jointly the first national hotels sampling survey during the latter half of the year in 1999. Information about population scales, development level and business status on the hotels in the whole country and its regions was estimated. On the basis of summarizing the survey , the three departments conducted jointly the second national hotels sampling survey and the first sampling survey for Individual hotels in the second half of 2000.

At present, the hotel industry statistics surveys in China consist of three parts:

- The regular survey for tourists hotels is conducted by NTA according to its annual statistical system and use census survey pattern.
- The sampling survey for social hotels was jointly conducted by three departments, NBS, NTA and SAIC in 1999 and 2000.
- The sampling survey for Individual hotels was jointly conducted by above three departments in 2000.

The paper describes only the sampling survey for social hotels and individual hotels in recent two years.

### **2. National hotels sampling survey implement scheme**

#### **2.1 Survey objective**

To get the data of overall scale, development level and basic operation status on hotels industry of the country; by comparing the data of the past two years, to analyze the changes and development about hotels industry , to provide basis for nation to formulate macro-development plan on the tourism industry; to use the result of the survey for serving national accounting system; with the experience, to improve sampling survey method on hotels industry.

#### **2.2 Coverage of the survey**

The target population included hotels registered in the administrative departments for industry and commerce at all level, but excluded tourist hotels that had been included in the annual statistical scope of National Tourism Administration. In 1999, the coverage also included Individual hotels.

#### **2.3 Survey Contents**

2.3.1 Items and indicators surveyed on the social hotels are: <sup>1</sup>

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<sup>1</sup> See Appendix: *Key Indicators' Explanation and Instructions for Items*  
Form 1: *Sampling survey form for the unit of social hotels*

- Unit name and unit code
- Unit Status
- Location of the unit and administrative divisions' code
- Registration Status
- Unit type
- Recreation Facilities
- Bed rate of principal rooms
- Launching time:
- Total rooms
- Total beds
- Number of guests received
- Number of all overseas tourists received
- Average bed occupancy
- Business income
- Business taxes and additional charges
- Total profit
- Original Value of fixed assets
- Persons engaged in the unit

2.3.2 Items and indicators surveyed on the individual hotels are: <sup>1</sup>

- Name
- Address
- Launching time
- Number of rooms
- Number of beds
- Average bed rate
- Number of tourists received
- Number of all overseas tourists received
- Operation time
- Total income from leasing rooms
- Taxes paid
- Average number of persons engaged (family member included)

## **2.4. Survey method**

2.4.1 Sampling survey method for social hotels units

Stratified systematic sampling is used in the survey.

a. Sampling frame

The hotels establishment directories information registered in the administrative departments for industry and commerce is taken as the target population sampling frame, the tourist hotels included in statistical range of NTA are not covered. The whole hotels units are put in order by their registered capitals from small to large and given them serial numbers for a sampling frame.

b. Sample size

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<sup>1</sup> See Form 2: *Questionnaire on Individual Hotels Sampling Survey*

About 10000 sample units are selected from the units of the social hotel industry in the whole country. They are proportionally distributed to the provincial regions.

c. Selection of the sample unit

- Firstly, make sampling frame as mentioned above.
- Secondly, based on the sample size distributed to the region, calculate the sample interval  $K$ . If the population units are  $N$ , the sample size is  $n$ , then  $K=N/n$ .
- Thirdly, select sample units by systematic sampling. The start number of the first unit is selected at random within number  $1-K$ , then one unit is selected every  $K$  units until the number of sample units reached  $n$ .
- Fourthly: issue the survey forms to above selected sample units. If a selected sample unit has been shut down, or merged, or changed over, choose a unit that its serial number is next to the selected unit instead and give the explanation in the report.

d. The provinces/ autonomous regions/ municipalities are required to calculate the population estimators and to undertake the sampling error control.

- Estimate population totals, means after calculating sample mean, variance.
- Error control: the core indicator *business revenue*, its maximal relative error is to be controlled less than 5% with the confidence probability of 85%.

2.4.2 Survey method for individual hotels is two-stage stratified random cluster sampling.

a. The first stage of stratified sampling: selecting the provincial regions

Sort all regions by GDP per capita in 1998, divide them into strata. Then randomly select regions from each stratum. Nine of them have been selected, they are Beijing, Hebei, Jiangsu, Fujian, Jiangxi, Shandong, Henan, Sichuan and Ningxia.

Total sample size of national individual hotels sampling survey is 2000. The number of the sample units allocated to the nine selected regions is decided by weighted mean.

b. The second stage of stratified sampling: selecting the counties, the county level city or district within the selected provincial regions. Following method is used to select the counties:

Divide all counties within the selected region into two strata: tourism hot counties and non-tourism hot counties. Sort counties by number of individual hotels of each county in each stratum. Select some counties as sample cluster units with random sampling, and then conduct the cluster survey.

c. Field questionnaire survey

Cluster sampling is to be conducted on the selected counties. Inquirers were sent to the individual hotels. One inquirer is in charge of some individual hotels, interviews with the relevant personnel and fills in and check up questionnaires.

## 2.5 Implement of the survey

The sampling survey schemes are set down jointly by NBS, NTA and SAIC. SAIC is responsible for providing directories of social hotels and individuals. Survey forms, instruction for filling in forms, survey questionnaires and programs are printed and distributed to the provinces' statistical agencies by NBS. Local statistical agencies, assisted by NTA and SAIC, are responsible for organizing, directing and coordinating the statistical work throughout their region, and collecting, examining the data of the survey results and reporting them to NBS by email or diskettes.

### **3. Conclusion**

The functions of China's official statistics have been enriched and developed continuously in practice, turning from single-function to multi-functions. The roles of statistics in macroeconomic management have been improved correspondingly step by step. However, some statistic fields are still too weak to meet the demand of the administration of a modern country.

As service industry statistics the social hotels sampling survey is a creative practice , which provide information of total supplies of tourism accommodation facilities in the country and varied regions and laid the basis for us to improve and normalize domestic tourism statistics, as well as to conduct sampling survey on other key industries in service industries.

Because the sampling survey on one of the service industries was conducted in China just for two years, we should improved the survey scheme and methodology continually in practice and learn from other countries' advanced experiences, in order to forge a service statistical system that could apply to the situation of our country step by step.

## Appendix

### ***Key Indicators' Explanation and Instructions for Items***

#### 1. Unit name and unit code

Unit name: refers to the full name registered in the administrative department for industry and commerce. The name should be corresponded with its official seal.

Unit code: refers to a) the code on the *Code certificate of corporative unit* or on the *Code certificate of the branch of corporative unit* issued by the authorities of technological supervision; b) temporary code issued by statistical agencies.

#### 2. Unit Status : Institutional Unit and Establishment.

a) Institutional Unit: It refers to the unit which is legally established, has its own name, institutional framework and working place, independently assumes the civil liability, independently owns and uses (or authorizes other unit to use) the assets, has the right to sign contracts with other units, makes independent accounting and is able to compile balance sheet.

b) Establishment: It refers to the unit which is engaged exclusively or mainly in a certain kind of social or economic activity, relatively independently organizes productive or business activity and is able to keep abreast of the business data on income and expenditure.

#### 3. Location of the unit and administrative divisions' code:

Location: refers to China's administrative division on which the unit is located and the unit address in detail. Fill with province/ autonomous region/municipality, prefecture/city/autonomous prefecture/league, county/district/autonomous banner/county level city, township/town, and street/village and number.

Administrative divisions' code: refers to the code of *Administrative divisions' code of People's Republic of China, state standard GB / T2260—1995*.

4. Registration status: refers to the status registered in the administrative department for industry and commerce. No. 01-08 is domestic funded; 09, funded by entrepreneurs from Hong Kong, Macao and Taiwan, include joint venture, cooperative association, solely owned, Share-holding Corporations; 10, foreign funded, include Chinese-foreign joint venture, Chinese-foreign cooperative association, foreign investment, foreign investment share enterprises.

5. Unit type: state with the key words of the unit name, such as "Hostel A", mark "3" in the blank pain at right bottom. "Sanatorium B", mark "4".

6. Recreation Facilities : Other Recreation Facilities include karaoka bar, dance hall, electronic recreation room, bistro, nightclub etc.

7. Bed rate of principal rooms: refers to unit rate of the beds of the most room type in the unit. E.g. if the unit has 50 suits of twin rooms, 20 suits of triple rooms, then the principal room of the unit is twin room. Bed rate of principal room is just the bed rate of the twin room in this case.

If the number of twin rooms is very close to the number of triple rooms, bed rate of principal rooms can be the mean of twin room's bed rate and triple room's bed rate.

8. Launching time: refers to the launching time approved by and registered in the administrative department for industry and commerce.

9. Total rooms: refer to the number of all rooms which could accommodate tourists.

10. Total beds: refer to the number of all beds which could accommodate tourists.

11. The number of guests received: refer to the number of all guests received and accommodated by the unit during the year. It can be get from the guests/tourists registration of the unit.

12. The number of all overseas tourists received: refer to the number of all tourists, who hold

foreign passports or return homeland passport of Hong Kong, Macao and Taiwan, received by the unit during the year.

13. Average bed occupancy: refers to the percentage of the number of tourists (nights) received during the year. the formula goes:

$$\text{Average bed occupancy}(\%) = \frac{\text{the number of tourists (nights) received}}{\text{total hotel beds} \times 365 \text{ (night)}} \times 100\%$$

14. Business income: refers to the sum of the business income during the year including income from rooms, foods and drinks, recreation facilities, shops, cars, and other income.

15. Business tax and additional charge: refer to taxes and additional charges related to the unit's business income, including business tax, urban maintenance and construction tax, and additional expenses on education, etc..

16. Total profit: refers to the total profit or deficit of the unit during the year. The formula goes:  
total profit = business profit + subsidy income + investment dividend + non-business income  
- non-business expenditure

A negative result denotes deficit.

17. Original value of fixed assets: refers to the total cash value of the fixed assets of the unit when they are set up, purchased, installed, restructured, expended, or renovated.

18. Persons engaged in the unit : refer to the number of persons who are engaged in the unit and get payment from the unit at the end of the year, including long-term workers, contract workers and casual workers, etc..

