

Rural-Urban Migrant Project Census Manual

November 2007

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I Preparations for Census

i) Preparations for census

- **Purchase same-scale maps(with the same scale in both rural and urban area):** same-scale maps— can be bought in the Provincial Bureau of Surveying and Mapping and provincial Xinhua Bookstore (need 3 of them, one for the client, another for the headquarters of the company, the last one for survey company)

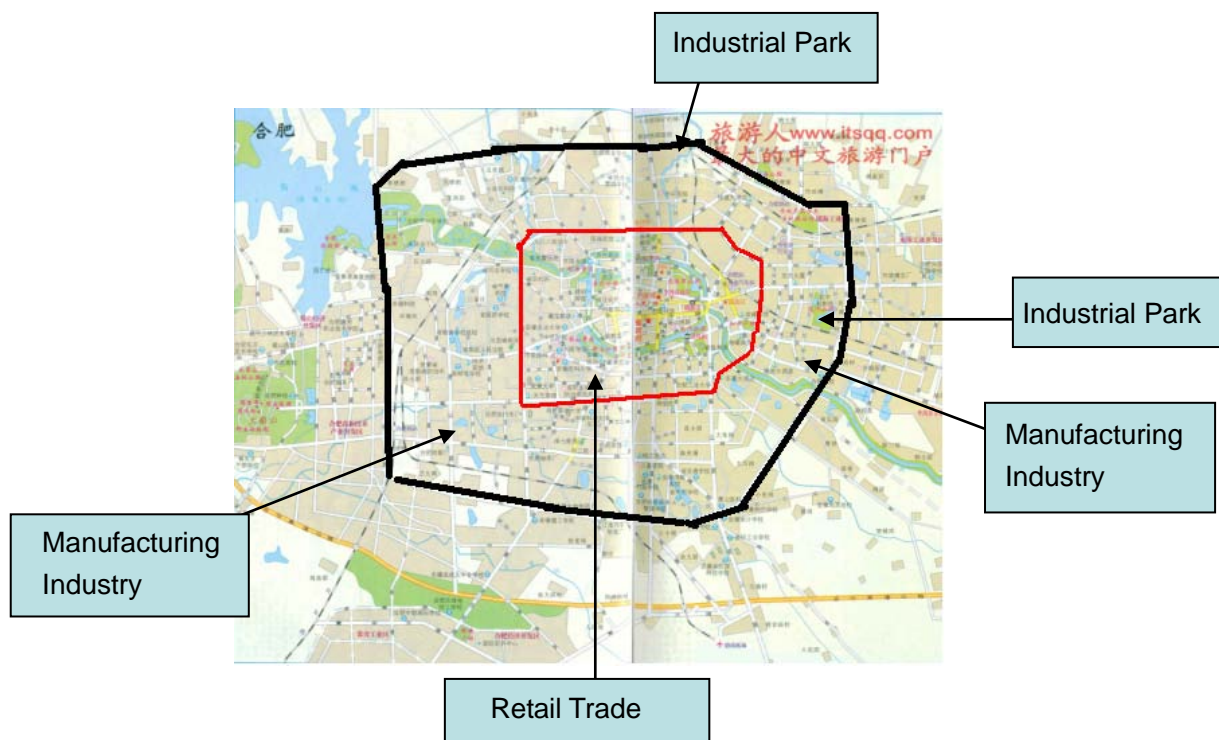
As to those cities that cannot find the same-scale maps and corresponding electronic maps, supervisor and project researcher should come to an appropriate solution through consultation.

Precision of the maps should be high enough to show each street.

- **Scan the same-scale map to create an electronic version** which also should have the high precision to show each street.
- **Then divide the scanned map into a number of blocks (samples for selected), using drawing software. Block size should be 0.5 km x 0.5km. (Please find details in iv.Methods for delineating enumeration area)**

ii) Delineate census area (city) boundary

- According to the city boundaries and distribution of city industries, delineate the city boundary. Then mark the distribution situation of city industries. [Please see details in iii) Principles of delineating census area (city) boundary]
- **Submit the map with the above information to the company before 5th November 2007, who will transfer it to the client to confirm the final boundaries of the city.**



- From Nov. 12th to Nov.18th in 2007, the client and supervisors **of all cities** will drive the car along the whole delineated city boundary to make sure if the boundary is applicable, to record the types of industries along the boundary and then fix the final city boundary.
- Mark the final city boundary on the map, as well as the industry types along the boundary..

iii) Principles of delineating census area (city) boundary

- The census area of this survey mainly covers urban area of the city, as well as some part of the suburbs. Industries are covered as many as possible, especially those industries that rural-urban migrant workers with Hukou may engage in.
- Within one kilometer outside the boundary, there should be no concentrated residential area or building for production (excluding landscape greenbelt of the city)
- At the same time, aspects such as urbanization of city marginal area, distribution of industries, etc. should be taken into full account.
-

iv) Methods for delineating enumeration areas

A. Requirements

Each block should cover an area of about 0.25 km² (i.e. 500 m * 500 m)

B. Methods

Step 1: According to the scale of map and length of the boundary, calculate how many square kilometers the census area covers

Example 1:

Map scale:1: 30000

The length of each side of a square map is 35 cm. This length of each side should be converted into actual length--- $35 \text{ cm} * 30000 = 10.5 \text{ km}$

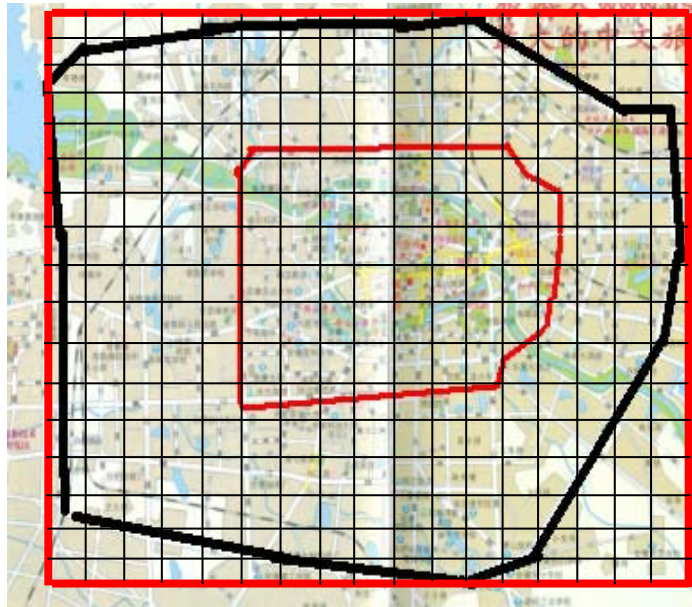
Total area: $10.5 * 10.5 = 110.25 \text{ km}^2$

Step 2: Calculate the number of **blocks (samples)**

The number of blocks = area of the city/area of each block (0.25 km²)
 $= 110.25/0.25$
 $= 441$

Our sampling action is based on equal area sampling method, which is able to ensure each block is in the same size and is square. Thus, we can divide the city's map into 441 blocks (21 * 21).

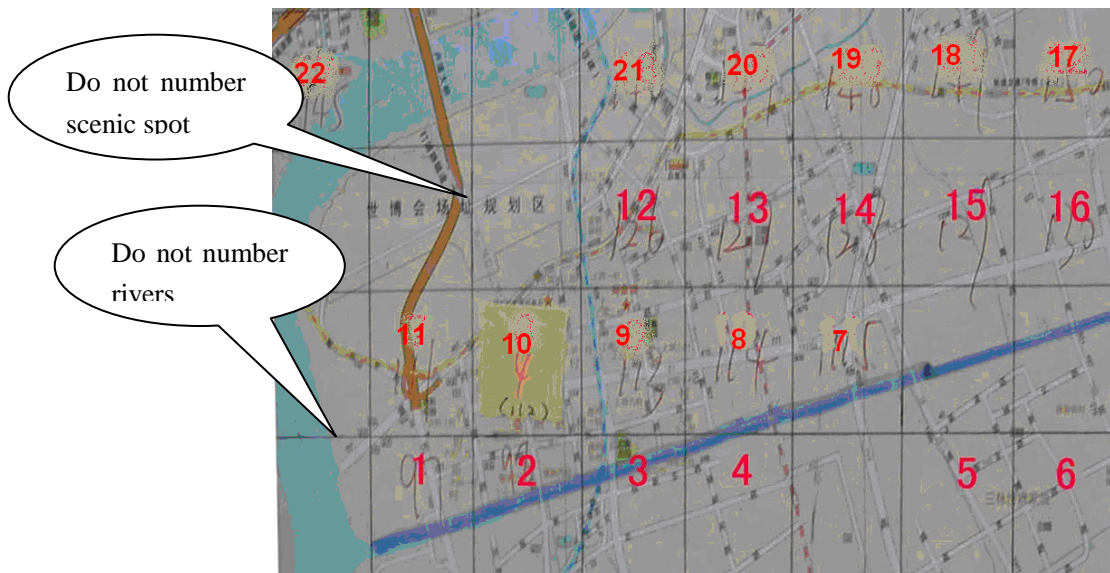
Step 3: Draw these 441 same size square blocks on the map with drawing software.



v) Methods for selecting enumeration area

A. Numbering the blocks

- **Numbering principle:** Number them in sequence from left bottom corner to right, from bottom to top, in a way of S shape.
- When numbering the blocks, rivers, parks and scenic spots should be excluded from numbering; number them only if less than 25% of the block is rivers, parks or scenic spots; Please see the picture shows below:



B. Selecting enumeration area:

- Project manager can find how many blocks should be selected in the following table: Number of enumeration area (samples selected) should be 10% of all blocks (samples). For example, select 50 blocks as enumeration areas from 500 samples, and 40 blocks as enumeration areas from 400 samples.

All selection action should be carried out in the same manner; In the course of practice, the enumeration area may need to be substituted. Therefore, we should prepare 20 percent of samples as backup. For example, select 60 blocks if there are only 50 needed, and sample 48 blocks if there are 40 needed.

Province	City	City Code	Sample numbers	Number of Enumeration areas	Number of samples should be selected
Guangdong	Guangzhou	1	400	40	48
	Dongguan	2	300	30	36
	Shenzhen	3	300	30	36
Henan	Zhengzhou	4	350	35	42
	Luoyang	5	200	20	24
Anhui	Hefei	6	350	35	42
	Bengbu	7	200	20	24
Chongqing	Chongqing	8	400	40	48

Province	City	City Code	Sample numbers	Number of Enumeration areas	Number of samples should be selected
Shanghai	Shanghai	9	500	50	60
Jiangsu	Nanjing	10	400	40	48
	Wuxi	11	200	20	24
Zhejiang	Hangzhou	12	400	40	48
	Ningbo	13	200	20	24
Hubei	Wuhan	14	400	40	48
Sichuan	Chengdu	15	400	40	48

- The client select 3 groups of blocks of corresponding number showed in the above table by using “Randomly selected number generator” in the data analysis tools of Microexcel.
- Mark 3 groups of blocks on the map according to the respective sequence of the random numbers generated. Then the client and the Market research should visit and examine the three areas together and finally choose one group of blocks with the most appropriate distribution as census enumeration area.
- Send the map on which the three groups of blocks are marked to chief supervisor of Market research company by E-mail for final decision.
- In the finally used group of blocks, fix the enumeration area (Number: according to Number of Enumeration areas in the table above; Sequence: according to the sequence of random number generated. Do not rearrange the sequence) For example, the random numbers of the final used group of blocks are 290, 33, 7, 45, 92, 103, and 76. The number of enumeration area is 5. Thus the first five 290, 33, 7, 45 and 92 are the final fixed enumeration areas. The rest two, 103 and 76 will be used as backup.
- Mark the finally fixed enumeration area on the map.

- **Note: Do not reorder enumeration areas after being selected. Mark them on the map directly according to the sequence selected.**
- **Electronic map:** After fixing the enumeration areas, supervisors and enumerators of cities can search on <http://ditu.google.com> or other sites to find electronic maps to edit, for the confirmation of enumeration area in the following census process.

vi) Principles of substitution of enumeration area

In the following circumstances, supervisor should directly use backup blocks as enumeration area.

- Among the random numbers selected, one number is selected twice.

In the following circumstances, supervisor should go to examine the enumeration area before using backup blocks:

If the following situations emerged in the enumeration area:

- Large overpass and viaducts
- Over 25% of the area is in road blockage, renovation and construction.
- Over 25% of the area is covered by green lawn
- Over 25% of the area is occupied by government organizations
- Over 25% of the area is occupied by stadium
- Over 25% of the area is covered by river, park or scenic spots
- Over 50% of the area is occupied by schools, large scale workshops, residential buildings or large scale building sites, etc., without any entrance.
- Over 25% of the area is under house demolition
- Interview Denied rate or No Migrant Workers rate is over 50% (This should be judged by supervisor after census in this area is finished)

Principles for using backup blocks

- When substitute the cancelled enumeration area with backup b) B. Selecting enumeration area, the first substitution should be 103. If it is not enough, then use 76.
- If all the backup blocks are used up, and we are still unable to get enough enumeration areas, supervisor should communicate with the Market Research Company who will ask the client to re-select a new group of random number blocks. Then this group of numbers can be used as backup blocks to complete the enumeration areas. During this period of time, Market Research Company should keep in touch with client, and report all the situations concerning the progress of census.

vii) Methods for confirmation of enumeration area

A. Requirement:

Even when relief maps or electronic maps are available, supervisor must go and visit all the enumeration areas to completely make sure that the boundaries of enumeration areas are streets which can clearly show boundaries to enumerators; At the same time, Supervisor should estimate how many streets and

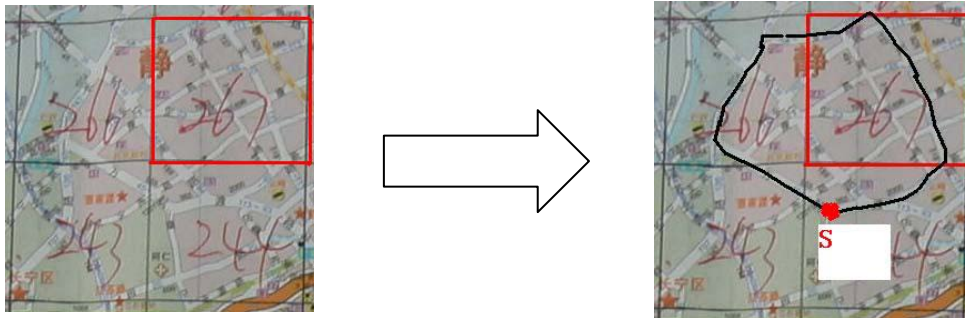
units there are in each enumeration area, as well as what type of business they belong to. Record the information in corresponding table (See **Enumeration Area Information Table**)

B. Methods and steps for the conformation of enumeration area:

Step 1: Determine the practical boundary of enumeration area.

- Supervisor delineate the practical boundary of each enumeration area according to the streets both inside and circumjacent the boundary. The area inside the boundary must between 0.25km^2 and 0.36km^2 with streets as boundaries. Practical boundary can exceed the original block (square) boundary, but not too far.
- At the same time, supervisor should mark “S” at the start point of the southwest corner of the delineated practical boundary, which is to make a preparation for the next confirmation step.

Example Two:



Red boundary block : Selected enumeration area

Black boundary area : Practical enumeration area

- If part of units such as school, large scale workshop, residents area or large scale building site locates inside the block, and covers an area larger than $1/2$ of the block, and has one entrance, then the large scale unit should be included in the practical enumeration area. Only under this circumstance, the practical enumeration area can be larger than 0.36 km^2 . If the unit is smaller than $1/2$ of the block, no matter if it has entrances in the block, it should be excluded, and then expand the remainder part of the block to no less than 0.25 km^2 .

Step 2: On-the-spot investigation, confirm the enumeration area

- **Objects:** Confirm the correctness of the delineated enumeration area boundary, and precision of the map; confirm the area of the practical enumeration area.
- **Principle:** Right Hand Principle
- **Area measuring method:**
Measure the area by foot steps; If the supervisor’s step is 0.6m, and he/she walking along one side needs 1000 steps, then the length of this side is 600m; Supervisor walk along four sides to get length of each side so as to count up the area of fixed practical enumeration area by using calculation method of trapezium and rectangle.
- **Method of confirmation:**
 - On the principle of Right Hand, supervisor walks from the start point “S” along the delineated

boundary until back to the start point “S”; As he/she walking along the boundary, length of each side and the total area of the enumeration area should be calculated and recorded; In this step , if the actual area is much larger than 0.25 km², it should be minified to close to 0.25 km² according to practical situation; if the actual area is much smaller than 0.25 km² , it should be expanded to no less than 0.25 km² , also according to practical situation.

- If inside the block there is an unit such as school, large scale workshop, residents building or large scale building site, that covers an area larger than 1/2 of the whole block, and has one entrance in the block, then the large scale unit should be included in the practical enumeration area. Only under this circumstance, the practical enumeration area can be larger than 0.36 km²; If the unit is smaller than 1/2 of the whole block, no matter if it has entrances in the block, it should be excluded, and then expand the remainder part of the block to no less than 0.25 km²; If inside the practical enumeration area there is an unit such as school, large scale workshop, residents building or large scale building site, that covers an area larger than 1/2 of the whole practical enumeration area, and has no entrances in the block, then the enumeration area should be substituted.
- Check the accuracy of streets in the enumeration area, if there is a large discrepancy between the actual streets’ distribution and that of the map, or the map is not precise enough, the map should be replaced.

Step 3: Confirm the business type and number. Fill the enumeration area information table

➤ **Objects:** Obtain basic statistics of unit in the enumeration area, such as business type, number, etc.

➤ When confirming the boundary of enumeration area, the supervisor should:

Record the number of main streets, the estimated approximate number of units and their main business type in the enumeration area information table (including itinerant hawkers’ information; please see “Enumeration Area Information Table” in “Rural-urban Migrant Workers Project—Census Table”). At the same time, supervisor should record detailed information of the three main streets one by one.

(1) Three main streets of the enumeration area: one horizontal and two vertical or one vertical and two horizontal

(2) Record those units such as Hotel, commercial building, hospital, school, industrial and mining enterprises and big market that may be difficult to interview directly and need telephone interview.

Step 4: Feedback

➤ After confirming enumeration area boundaries, cooperating partners companies of cities should send the number of units and business types to company’s project team for feedback.

➤ Company’s project team should summarize the detailed information, edit Census Enumeration Area Table of all cities and submit it together with Enumeration Area Information Table to the client.

II Census Implementation Manual

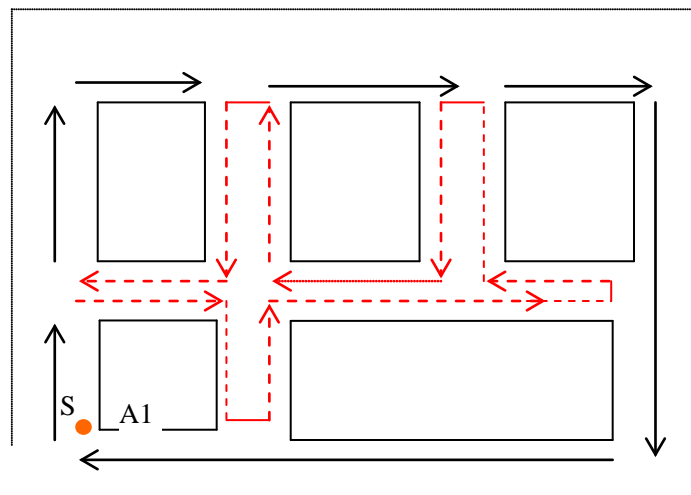
- Census content must be objective and real;
- All the work must be finished by enumerator himself/herself. They mustn't be transferred to other person.
- All enumerator must comply with the confidential principle of company; no matter whether census is finished, all the questionnaires and materials must not be hold privately or transferred to others. Enumerators mustn't talk about any topic concerning this project with others.

i) Census process

A. Abide by Right Hand Principle to conduct all-streets survey:

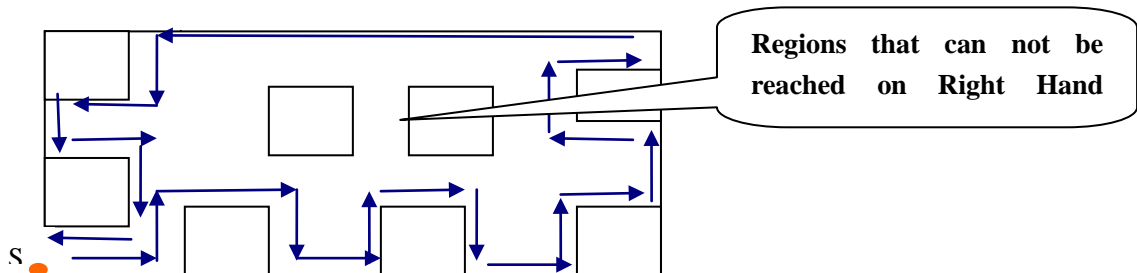
- **Right Hand Principle:** As the picture 1 shows below, enumerator must start from the point “S”(Usually the Southwest corner of the enumeration area, marked as “S”), survey all the streets that have pedestrians in the enumeration area completely, including new residential areas, lanes, alleys etc.

Picture 1:



- Regarding those regions that can not be reached on the Right Hand Principle, they should be surveyed separately. Detailed reasons about it should be mentioned in remark. As Picture 2 shows below, the buildings in the middle part can not be reached on Right Hand Principle, so they should be surveyed separately.

Picture 2:



- Enumerator walk from “the southwest corner”— the start point “S”, abiding by the Right Hand Principle,

and guided by the map (with walking route marked by supervisor), and survey each street completely.

- b. At the same time, enumerator should mark his/her own walking route on the map, and use arrow mark to show walking direction. The presumed location of shops should be marked with conspicuous building, for the convenience of inspection and preventing repeated survey and information records.

B. Steps that enumerator should comply with:

- a. When entering at the unit, enumerator should first find the leader of the unit or other person that is familiar with the unit's situation, and then deliver the introductory remarks which are to make personal introduction and expound objects of the project. Show Personal Information Card card and recommendation letter immediately.
- b. If everything goes smoothly, begin the interview and take records.
- c. If nobody can be found, record the time. Visit it next time.
- d. When interview is finished, deliver the concluding remarks.
- e. Enumerator should recite the following introductory remarks and concluding remarks fluently, and proceed with the communication in such way of speaking.

Introductory Remarks:

Good morning! I am an enumerator of XX Market Research Company. We are committed by Ministry of Labor and Social Security of PRC and Beijing Normal University to conduct survey on rural-urban migrants' basic situation. The object is to provide a basis for future relevant policies. Would you mind taking several minutes to cooperate with us? We are sure that the data you provide will be kept confidentially and only be used in studies. Your cooperation will be greatly appreciated. Thank you!

Concluding Remarks:

Thank you for your help and support! We will also launch a random sampling survey on the rural-urban migrants in this city. If your unit is sampled, by that time, my colleagues may come to bother you again. Look forward to your friendly help. Really appreciate it!

C. Instructions on how to fill in the census table

Definition of rural-urban migrants: Defined in terms of Hukou, all the personnel work in the census area with rural (including local and non-local rural area) Hukou.

- a. **Record basic information such as name, address, type of unit, etc.**

Stand outside the surveyed unit to record the address faithfully and accurately.

- b. **According to the content of census table, try to ask a person who is familiar with the situation for information such as business area, number of employees, number of rural-urban migrant workers with rural Hukou, telephone number, etc., and record them accurately and faithfully.**

- Once any census target denies the interview, the situation should also be recorded accurately and faithfully.
- No rural-urban migrant worker with rural Hukou in the unit (i.e. number is 0) must be distinguished clearly from the situation that the interviewee do not cooperate or just give irresponsible answer “None”. Reliability of the information should be evaluated subjectively by enumerator according to interviewee’s attitude. For example, if the answer “None” come from an interviewee who has bad attitude, or doesn’t want to cooperate, record the number of rural-urban migrant workers with rural Hukou as “0”, and fill the reliability in the (RS) column.
- Enumerator must ask for telephone numbers of places such as development zones, Science and Technology Parks, large scale wholesale/ retail trade markets, commercial sites, industrial enterprises, etc. This is to prepare for the future inspection or consultation if necessary.

c. Estimate Information

➤ Method to estimate business area

▲ Visual observation ---daylight lamp method

According to daylight lamp in the shop to calculated the area. Usually, the length of daylight lamp is 60cm and 120cm and the distance between two lamps is one time or two times the length of lamp; enumerator should count the number of daylight lamps so as to calculate distance between two lamps as well as the shop’s area according to area formula. For example: A daylight lamp’s length is 60cm. Distance between two lamps is 120cm (i.e. length between two lamps); the length of the shop is 15 times the lamp and width is 10 times the lamp, then the area is “length*width= (60cm*15) * (60cm*10) =54 km²

▲ Visual observation ---floor tile method

Estimate according to the number of floor tiles in the shop. Generally, the standards of length and width of floor tiles are 300x300, 400x400, 500x500, 600x600; enumerator just need to count the floor tiles number and calculate the area by using area formula.

▲ Foot steps method

Generally speaking, one male’s foot step is 60cm-80cm, and female’s is 50cm-70cm. Enumerator can calculate the area according to how many steps needed in length and width and the length of each foot steps. For example: One male’s foot step is 70cm. The length and width of a shop is 10steps and 8 steps, then the floor area is (10*70cm)*(8*70cm)=39.2 km²

➤ Estimate the number of rural-urban migrant workers with rural Hukou

Enumerator should estimate the number of rural-urban migrant workers with rural Hukou according to the shop size, industry type and situation of surrounding similar shops. Enumerator should try to estimate the information that can not be obtained from interview.

- d. After interview, according to the attitude of interviewee, enumerator should make a subjective judgment on the reliability and choose one of the five grades below in RS column.

1	Very unreliable
2	Unreliable
3	Normal
4	Reliable
5	Very reliable

e. **How to deal with inestimable situation**

Sometimes we can not enter certain census target. There are many reasons for this. For instance, the unit is too large to estimate how many rural-urban migrant workers with rural Hukou work there. In this circumstance, enumerator should record the reasons such as “Don’t know”, “Closed” or “In decoration, not in operation” etc, in the ESTIMATED NUMBER OF RURAL-URBAN MIGRANT WORKERS WITH RURAL HUKOU column.

ii) **How to deal with different types of census targets**

A. Individual or small census target such as shops, vendors etc. (Use census table one)

- Start the interview when the interviewee is at work but not very busy. For instance, when census target is a restaurant, the interview should be conducted at non-serving time.

B. Moving census targets such as itinerant hawkers, sanitation workers (Use census table one)

- In the process of census, if there are itinerant hawkers(such as hawkers who sell clothes, books, disks, etc.) and sanitation workers on the road, write “itinerant hawkers” or “sanitation workers” in “Full Name of Shop/Enterprise” column, and record a conspicuous building nearby in “Reference mark description” column.

C. Taxi driver

- Supervisor should first survey whether the taxi drivers in various cities are rural-urban migrants. If in certain city the answer is yes, conduct an interview with taxi drivers following the method below. If the answer is no, do not consider those taxi drivers.
- Supervisor should ask local taxi managing department for ratio of rural-urban migrants in taxi drivers in this city.
- In every enumeration area, enumerator should record number of taxies pass by in one single direction within a regular period of time (choose one day from Monday to Friday, from 10:00 am to 10:00am.i.e.

the period last 10 minutes), at a fixed place (The main crossroads of each city). Names of crossroads and number of taxis should be recorded in the following census table (Census Table One). Other irrelevant information such as Contact Person, Business Area etc. can be left blank.

Code	Full Name of Shop/Enterprise	Detailed Address	Number of Employees
Sequence No.	Taxi	Address of the main crossroads	Number of taxis under the above conditions

D. Large and medium scale manufactories and enterprises (Use Census Table One)

Ask HR department staff or other personnel (like staff in reception room) who is familiar with the situation for information, especially total number of rural-urban migrants who are working in this unit.

E. Units with wall such as schools and development zones (Use Census Table One)

- School/development zone inside the enumeration area is not treated as one single census target unit. As to school/development zone with many entrances, only one of them should be chosen as entrance while the others are treated as blocked door.
- Please divide all the units in school and development zone up into two categories: (1) School/development zone itself; (2) Other units and enterprises that do not directly belong to school/development zone such as shops, vendors and other service organizations.
- Census method to category(1)school/development zone itself: Ask staff of logistic/managing department or other personnel (like staff in reception room) who is familiar with the situation for the total number of rural-urban migrants who are working in this unit.
- Census method to category (2) Other units and enterprises that do not directly belong to school/development zone: Conduct interview with all the units, enterprises, etc. one by one on the Right Hand Principle.

F. Large scale office building/commercial building (Use Census Table One)

- Divide all units, commercial networks, etc. in large scale office building/commercial building up into three categories: (1) Office building/commercial building itself; (2) Other commercial networks that do not directly belong to office building/commercial building, such as cafés, buffets, etc.; (3)Units that rent offices in office building/commercial building, such as companies, agencies and other enterprises and public service units.
- Census method to category (1) Office building/commercial building itself: Ask Property Management Company of the building for the total number of hired rural-urban migrant workers with rural Hukou, including security staffs and cleaners.
- Census method to category (2) Other commercial networks and servicing industry that do not directly belong to office building/commercial building, such as cafés, buffets, beauty parlors, restaurants, etc.:

Conduct interview with all the commercial networks one by one on the Right Hand Principle.

- Census method to category (3) Units that rent offices in office building/commercial building are not treated as census targets, and can be neglected.

G. Large scale wholesale/retail trade markets [Use Census Table One and Market Table (Table Two)]

- Large scale market is defined as market that has more than 50 booths or shops. Booths and shops in small scale market (that has less than or equal to 50 booths or shops) should be treated as individual census targets, i.e. all the booths and shops are to be surveyed and recorded.

Step 1: Record full name and location of the market in Census Table One. And mark down it is a market. (See Example 1 in Page 27)

Step 2: Find the leader or manager of the commercial site. First, ask for the total number of rural-urban migrant workers with rural Hukou hired by this market itself, such as security staffs, cleaners, etc. Fill the number in Census Table One; then ask for the number of booths and shops or business units in this market. Finally, after recording the answers, make a subjective judgment on the answers' reliability according to interviewee's attitude toward, and fill it in Census Table Two.

Step 3: Record again the full name of markets in Market Table (Census Table Two). Enter into the market.

- If survey targets such as supermarket, shopping center, wholesale market, retail trade market, petty commodities market, electronic products market, farmers' market, etc. have many entrances, choose one that located on the survey road as entrance, while the others are treated as blocked. No matter whether total number of booths and shops are provided, enumerator must count one by one the booths and shops to get the exact number.

For example: A market has three levels. Level 1: booths for Cosmetics and petty commodities. Level 2,: booths for clothing. And Level 3: clothing specialty shops. On Level 1, there are 10 rows with 20 booths each. That is about 200 booths on Level 1. Level 2 is divided into 2 large sections. Each large section is subdivided into 5 small sections. In each small section there are 10 booths. So about 100 ($2*5*10=100$) booths located on Level 2. On Level 3, size of clothing specialty shops are different. Enumerator should count the shops one by one on the Right Hand Principle. Add up the number of booths/ shops on three levels together, we can get the estimated total number in this market.

- Conduct partial census, that is taking 10% of the total number of booths and shops in the market (i.e. the number counted by enumerator on the Right Hand Principle) as census target by using the method in the following example. For example: A wholesale market has 130 booths. Enumerator can choose one of the first 10 booths, and from this one on (including this one), every ten booths is treated as a group, use the first booth of each group as census target. Among them, if any booth denies the interview, enumerator

can record it directly as “Deny interview”, and then continue to survey the next first booth of the next group. All together 13 booths should be surveyed. If any booth can not be surveyed, such as closed, etc., the nearby booth can be the alternative. Enumerator should record full name, location, serial number and other census information of each booth in Market Table (Census Table Two). (See Example 2 in Page 28)

- If there is more than one building in a market, ask for the number of rural-urban migrant workers with rural Hukou in each building. No matter how many buildings in one market, just treat them separately as different markets.
- Information of each market should be recorded in one new Market Table.

H. Department store or Shopping center [use Census Table One or Market Table (Census Table Two)]

- This kind of enterprises will locate in detached buildings, usually in three different styles:
The first style: Unified management—Shopping centre has the only right to receive customers’ payment. Such kind of department store or shopping center should be recorded as one single enterprise. Enumerator can directly invite the leader of administrative department for an interview.
The second style: Independent management—Each shop has its own right to receive payment. Such kind of department store or shopping center should be surveyed in method just as that of markets mentioned before.
The third style: Combination of the first and second styles. To deal with this kind of department store or shopping center, we should use the method in first style to survey its unified management part, and use method in the second style to survey its independent management part.

I. Service agencies for public security, sanitation keeping, environment protection and housekeeping (use Census Table One)

- Public security company: When encountering Public Security Company, ask the human resource department manager for the number of rural-urban migrant workers with rural Hukou who had registered as security staff in this company, but haven’t yet been assigned to work for certain reasons such as receiving training, waiting to be allowed to work, etc.
- Sanitation Keeping Company: When encountering Sanitation Keeping Company, ask the human resource department manager for the number of rural-urban migrant workers with rural Hukou who had registered as sanitation worker in this company, but haven’t yet been assigned to work for certain reasons such as receiving training, waiting to be allowed to work, etc.
- Environment Protection Company: When encountering Environment Protection Company, ask the human resource department manager for the number of rural-urban migrant workers with rural Hukou who had registered as cleaner in this company, but haven’t yet been assigned to work for certain reasons such as receiving training, waiting to be allowed to work, etc.
- House Keeping Company: When encountering House Keeping Company, ask the human resource

department manager for all the number of rural-urban migrant workers with rural Hukou who had registered in this company.

J. Residential area (Use Census Table One)

- Divide all the units and commercial networks in residential area into two categories: (1) Residential area itself; (2) Other commercial networks that do not directly belong to residential area, such as restaurant, buffets, itinerant hawkers, etc.
- Census method to category (1) Residential area itself: Ask Property Management Company for the total number of rural-urban migrant workers with rural Hukou hired by them, including security staffs and cleaners, etc.
- Census method to category (2) Other commercial networks that do not directly belong to residential area: If the residential area has many entrances, only use the one on the census road as entrance, while the others are treated as blocked entrances. Conduct interview with all the commercial networks one by one on the Right Hand Principle.

K. Building maintenance/Building site, etc. (Use Census Table One)

- A building site may have many construction crews, so ask one of the crew leaders for the number of crews working here, and then go to each construction crew for the number of rural-urban migrant workers with rural Hukou they hired.
- If a building's external surface is being maintained or decorated, enumerator should also use the method just mentioned above. Usually, because it is only building maintenance, there may be only one construction crew, the situation may be much simpler.
- For more reasonable and accurate statistical data, enumerator should better ask more persons working there for factual situation.

L. Units not treated as census targets (basically those units that are guarded by solders/policeman with gun are not included in census target)

- **Party Committee**
- **The National People's Congress**
- **Chinese People's Political Consultative Conference**
- **Municipal government**
- **Public Security Organs & Procurator's Offices & Courts,**

iii) How to record different types of census targets

Overall Survey Type (Use Census Table One)

In the census area, all the units (excluding large scale wholesale/retail trade markets) are to be surveyed one by one, and recorded in Census Table One.

Partial Survey Type [Use Census Table One and Market Table Census Table Two]

- When conduct survey in large scale wholesale/retail trade markets, enumerator should first write down its

detailed address, and mark down that it is a market.

- Then record the total number of booths, actually surveyed number and proportion of booths in the market. Fill them in Market Table.

iv) The use of various recommendation letters during census

Use corresponding recommendation letters and certificate with various census targets, and record the type of recommendation letter and certificate in Census Table according to facts.

Recommendation letter of Beijing Normal University/Certificate of Company	Recommendation letter of Ministry of Labor/Certificate of Company
School, Residential area, Large scale wholesale market, Supermarket, Shopping centre, Retail trade market, Petty commodity market, Electronic products market, Street shops, Restaurant, Itinerant hawkers	School, Agencies and institutions, Residential area, Office buildings, Farmers' Market, Large scale wholesale market, Supermarket, Shopping centre, Retail trade market, Petty commodity market, Electronic products market, Street shops, Restaurant

v) Supplementary census

- To those units and enterprises that enumerator did not get their number of rural-urban migrant workers with rural Hukou in the first census, supervisor should organize supplementary census in different ways according to their types: A. telephone interview; B. On the scene supplementary interview.

A. Telephone interview: should be used in large scale units or enterprises (such as manufactories, enterprises, wholesale markets, large scale restaurant, etc.)

- According to telephone numbers recorded by enumerator, supervisor arranges a staff specially responsible for calling all the census targets for information that still left blanked in Census Table, especially the number of rural-urban migrant workers with rural Hukou.
- If certain unit did not provide telephone record, the staff can use consultation Number 114, internet, yellow page, etc. to find census target's telephone number. Then ask them for information still left blanked in Census Table, especially the number of rural-urban migrant workers with rural Hukou.

B. On the scene supplementary interview: This method is suitable for large scale units and enterprises that can not provide exact number of rural-urban migrant workers with rural Hukou through telephone interview, and those small scale census targets that have no telephone or heir telephone number can not be found on the internet or yellow page.

- If in some large scale census targets the total number of rural-urban migrant workers with rural Hukou can not be found through telephone, supervisor himself or other experienced census enumerator should be designated for the on the scene interview. They should first contact with

census target, explain purpose first and then make an appointment to conduct the on the scene interview.

- If the small scale census target has no telephone or can not be found on the internet or yellow page, supervisor should designate experienced enumerator with strong communication skill to visit the census target and conduct interview again.

C. Try to cooperate with Department of Labor of local government

Supervisor can communicate with Department of Labor of local government, District level Department of Labor, ask them for cooperation. First, explain to them our census purpose, the authorization and support given by the Ministry of Labor. Then, show them our recommendation letter from Ministry of Labor as well as the list of enterprises and units that need to be surveyed with their cooperation.

D. Suggested time arrangement:

When conducting supplementary census with enterprises and institutions, supervisor and enumerator should especially pay attention to the visit time and try their best to achieve interviewee's fullest cooperation without affecting census target's normal work and business activities. Please refer to the following time table for different census targets.

	9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	13:00-14:00	14:00-15:00	15:00-16:00	16:00-17:00	17:00-18:00	18:00-20:00
Schools	√	√	√			√	√			
Agencies and institutions	√	√	√			√	√	√		
Residential areas	√	√	√	√		√	√		√	
Office buildings	√	√	√		√	√	√	√		
Farmers' Markets		√	√	√	√	√	√	√		
Large scale wholesale markets		√	√	√	√	√	√	√		
Supermarkets		√	√	√	√	√	√	√	√	
Shopping centre		√	√	√	√	√	√	√		
Retail trade markets		√	√	√	√	√	√	√		
Petty commodity markets		√	√	√	√	√	√	√		
Electronic products markets		√	√	√	√	√	√	√		
Restaurants	√					√	√			
Street shops	√	√	√			√	√	√	√	√
Itinerant hawkers	√	√	√	√	√	√	√	√	√	√

vi) Submit the census table

After finishing census task in a enumeration area, enumerator should submit census statistics to company as early as possible.

- When surveying the first enumeration area, enumerator should submit questionnaire once a day.
- Questionnaires and map should be submitted to company within one work day after finishing survey in each enumeration area.
- Report census progress to supervisor each day through telephone or mobile phone messages.

Supervisor should finish the following work after receiving enumerators' census table.

- Check the census situation finished by enumerator. Judge and arrange supplementary census needed in each enumeration area.
- Arrange census data entry everyday, and send it to client every two days.
- If proportion of denied interviews exceeds 50%, the enumeration area should be cancelled. Then use a backup enumeration area as substitute, conduct survey in it again.
- Make summary of census progress at each stage, and report the following content to company and client : number of enumeration areas where survey is finished and ongoing, the proportion of shops already surveyed in each enumeration area where survey is still ongoing, ratio of denied interview, proportion of units that have 0 rural-urban migrant workers with rural Hukou, etc.

III Census Quality Control

i) Basic requirements for inspection

- Inspectors and enumerators must be recruited and trained separately. Enumerators mustn't inspect their own or each other's enumeration area.
- Inspection content: 1. Streets missed 2. Shops missed 3. Important census information: including census targets' name, address, contact information, industry belonged to, area, number of rural-urban migrant workers with rural Hukou, etc.
- In the process of project, after each day's work, inspector must report to supervisor through telephone or mobile phone messages. Inspection Table must be sent to supervisor at least every two days.
- Inspection supervisor should accompany 20% of the inspectors to conduct inspection.

ii) Inspection ratio

Inspection method to *streets missed*: Use enumeration area map used in census and Census Table as

reference. **Inspection method to *shops missed* and *important census information*: Make records on Census Inspection Table directly. These two inspection items can be launched at the same time. Supervisor should first select a main road and a less important road according to specific situation, and choose a certain shop for inspector to start from. Inspector checks census information one by one through all the census targets on these two roads until return to the start shop. Then stop inspecting detailed census information to check the number of shops.**

- Inspection of streets missed: Client provide enumeration area numbers which are randomly selected by computer. Inspect 10% of enumeration area to see if any streets are missed. (When the whole census is finished or half finished, client sample 10% out of the census targets to inspect)
- Inspection of shops missed: In each enumeration area, supervisor should first select a main road and a less important road for inspector to check recorded census information. (Only inspect immovable shops. Itinerant hawkers, sanitation workers, etc. are not included)
- Inspect accuracy of census data: When inspecting if there is any shop missed, choose 20 consecutive shops on the main road and the less important road to check their number of rural-urban migrant workers with rural Hukou. (Only inspect immovable shops. Itinerant hawkers, sanitation workers, etc. are not included. Besides, only check detailed information on Census Table One. If there is a market in inspection area, only check information of the market itself without inspecting booths in it. For example, only check the number of rural-urban migrant workers with rural Hukou hired by market Property Management Company.)

iii) Formulating plans

- **Inspection plan:** Inspection supervisor edit task assignment table three days before inspection, and specify which shops and streets are to be inspected in each numeration area, according to arrangement of census supervisor, situations of each enumeration area and inspector's condition.

iv) Data checking steps:

Step 1: Check if any streets are missed according to the map

- **Inspection content:**
 - (1) Check on the map if streets name and direction that enumerator and inspector walked are consistent.
 - (2) Check if the number of streets on the map are the same with recorded in census statistics.
- **Rules and method**

- (1) If any street is missed, add 10% of the census area to the inspection area. Number of enumeration area to be added should be provided by client, and so on.
- (2) In the process of census, if client find that certain street is still missed after inspection. Then all the enumeration area in this city must be re-inspected to see if other streets are missed.

Step 2: Check if the number of shops that recorded by enumerator and inspector are the same.

- **Inspection content:** Total number of shops, census target name, address, industry type, etc.
- **Rules and method: (Use the actual number of shops as base)**
 - (1) If the proportion of shops missed is under 10%, survey the missed shop and record its information.
 - (2) If the proportion of shops missed is between 10% and 30%, survey the missed shop and 50% of all the shops surveyed by this enumerator.
 - (3) If the proportion of shops missed is above 30%, survey all the shops in that enumerator's census area.

Step 3: Inspect the consistency of enumerator and inspector's records.

- **Inspection content:** Number of rural-urban migrants in census target shops.
- **Rule and Method: (Use the original census data as base)**
 - (1) If the absolute discrepancy of total number of rural-urban migrants between census data and inspection data is smaller than 30%, regard the original census data as standard.
 - (2) If the absolute discrepancy of the total number is between 30% to 60%, supervisor should take corresponding measures after finding out the real reason of discrepancy, i.e., if it is caused by enumerator's census quality, survey the missed shop and 50% of all the shops surveyed by this enumerator; if the problem is in inspection quality, retrain the inspector before letting him inspect other area.
 - (3) If the absolute discrepancy of the total number is larger than 60%, supervisor should take corresponding measures after finding out the real reason of discrepancy, i.e., if it is caused by enumerator's census quality, re-survey all the enumerator's census area; if the problem is in inspection quality, retrain the inspector strictly before letting him inspect other area.

v) Other quality control methods

- Every two days, Census data of each city should be input to computer and sent to company and client for feedback. This step is to provide data for analysis, so as to ensure that problems in census quality can be found and corrected in time.
- If proportion of denied interview is over 50%, the enumeration area can be substituted after company and client's confirmation.
- If the number of rural-urban migrant workers with rural Hukou is 0 in more than 50% of the units,

the enumeration area can be substituted after company and client's confirmation.

- Give telephone inspection to all the units that number of rural-urban migrant workers with rural Hukou is recorded more than 500 in census statistic.

IV Census data entry requirements

i) Detailed requirement of data entry:

- A.** Each variable can only have one message and should be filled in one column. For example, “In a shopping centre there are altogether 130 booths”. This sentence has two messages, and should be input to two different columns. : The first variable is “Shopping centre code”; the second variable is number of booths “130”.
- B.** Each variable should only consist of either numbers or characters, that is number and character mustn't be found in one variable. For example, in one variable, if the content is “enumeration area 140”, that is wrong. The correct variable should be: variable name: Enumeration area; variable value: 140
- C.** Variable name should be consistent in all the cities. (Please use the unified variable name in Census Table Entry Indication)
- D.** Do not merge cells in EXCEL table (Sometimes it happens in the Title part, i.e. the first two rows)
- E.** Value of census data should be units that surveyed, (such as shops, manufactories, etc.). Usually, each market has more than one unit, so each booth should be treated as one unit. Input information of market first, and then that of each booths. (See Census Table Entry Indication)
- F.** Except those variable that itself is character (such as title of unit), all other variable must be number. Codes of answers such as “Don't know”, “Interview denied”, etc. are unified as follows:

“Interview denied”	:	-9999
“Don't know”	:	-8888
“Closed” (means not in working time, excluding go bankrupt, transferred, etc)	:	-7777
“To be open”, “Bankrupt”, “Move to other place”, etc.	:	-6666
- G.** Data can't be “None” or “Do not have”, etc. It must be input as “0”.
- H.** Please see the attached table for “Census Data Entry Indication”, among which:
 - a. “Code of market belonged to” is for markets that have more than 50 units (See Market Table) (Units not in market do not use this variable)
 - b. “Number of booths in market” means total number of booths (units). (See Market Table) (Units not in market do not use this variable)
 - c. “Number of booths surveyed in this market” means number of booths surveyed. (Units not in market do not use this variable)
 - d. Codes of enumerators should be input to variable “enum” in database.

- I. Codes of “Shops missed”: Add the missed shops in the place where it should be in the original map. For example, there are two missed shops between shops with the original code 16 and 17, then add 16.3 and 16.8 between them.
- J. For the convenience of data entry, all execution companies should obey “Initial Census Table Entry Indication” in inputting census questionnaires data. (See Page 25) . Detailed explanation of method of entry, please see “Entry template (New+Training) .xls”. Headquarter of company should provide to the client two consistent database according to “Initial Census Table Entry Indication” and “Data Output Indication” (See page 26)

ii) Data entry control

- A. 20% of questionnaire data should be input by two staff at the same time for better accuracy. Supervisors determine the amount of samples assigned to each data entry staff.
- B. Data input should be checked.
 - a. **Check the serial number of questionnaire:** use frequency table to check if any data is double input or is incorrect.
 - b. **Check the accuracy of each variable:** use frequency table to check if value range of variable is consistent with that of regulated.
 - c. **Check the value of variable that has no regulated value range:** use frequency table to check or use Explore to launch basic statistic analysis to part of the variables. For example, when number of rural-urban migrant workers with rural Hukou is observed extreme value or singular value (extremely large value), it should be reconfirmed.
 - d. **As to those data that is not consistent with standard, reason of inconsistency should be found and solution method should be recorded.**
- C. Submit database