



World Values Survey Wave 7 in China: Sample Design.

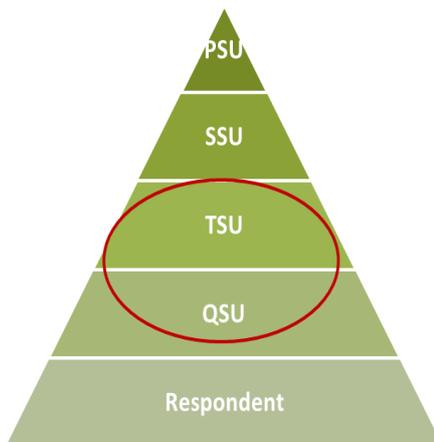
The 7th wave of World Values Survey was carried in China by a consortium led by Public Opinion Research Center of School of International and Public Affairs at Shanghai Jiao Tong University and composed of a number of university research centers and faculties from Peking University, Tsinghua University, Nanjing University, Shandong University, Jilin University, Southwestern Jiao Tong University and Zhongshan University. The cost of the survey was shared by participants of the consortium.

The target population covered Chinese rural and urban residents aged 18 and above, who had resided in the surveyed communities for no less than 1 month. The individuals who resided in military residential complexes, residential units in compounds of central ministries, embassies and consulates, infrastructural buildings (i.e. power stations, water stations etc.), prisons, tourist destinations and religious sites were excluded from the target population.

The target sample size was between 3,500-4,000 individuals.

The sampling frame covered Chinese citizens who live in both rural and urban areas of China in all provinces except Tibet and Xinjiang (due to political and language reasons).

In China GIS/GPS Spatial Sampling was executed.



- **PSUs:** counties, county level cities and urban districts
- **SSUs:** townships, street offices
- **TSUs:** Sample 30" * 30" half-square minutes (HSMs) of latitude & longitude (about 900*720 square meters in Northern China).
- **Quandary Sampling Units (QSUs):** Randomly select 90m*90m spatial-square seconds (SSSs) of dwellings in the sampled HSMs
- **Respondents:** Each respondent sampled in each sampled dwelling.



SS: The Stratification and Sampling Process

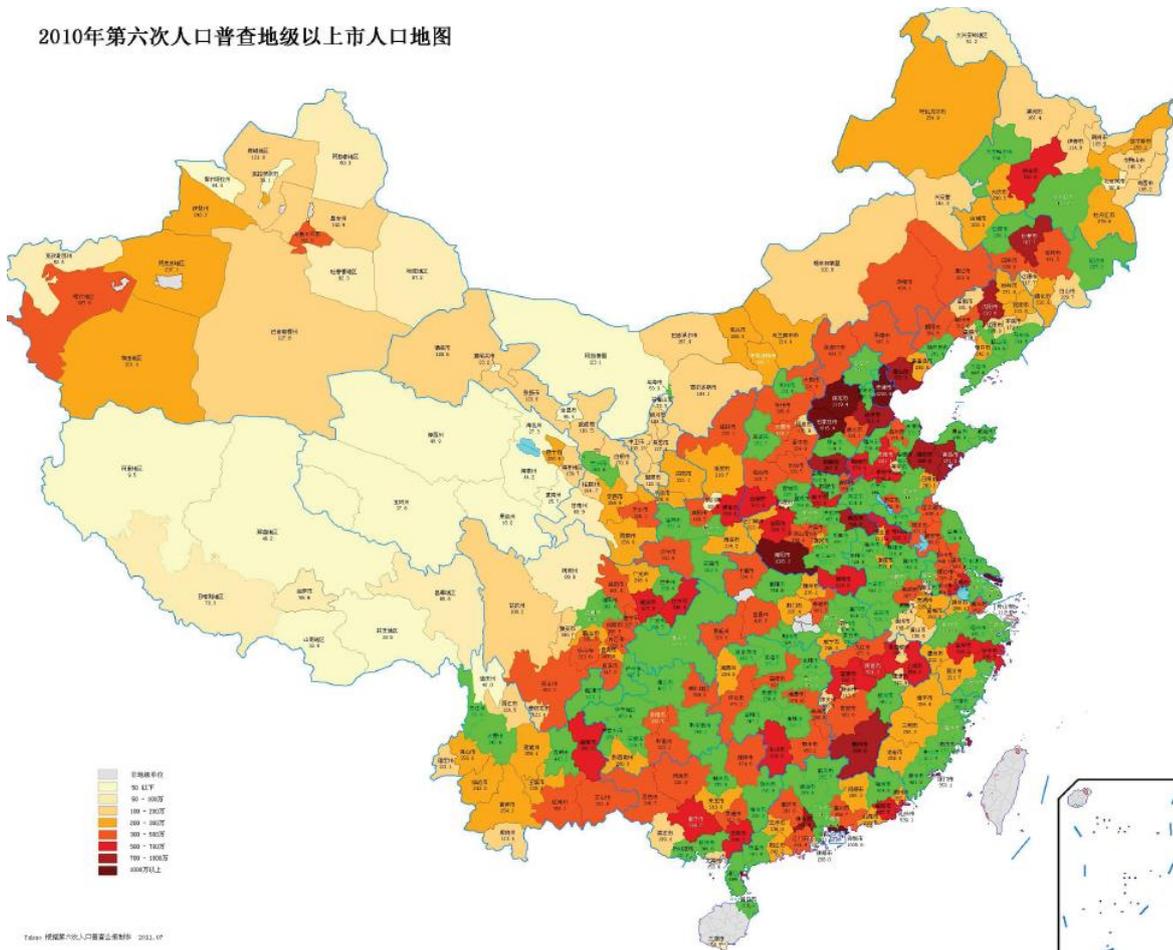
Stratification	Population	proportionate		proportionate		GIS/GPS assisted sampling	
		Stage 1 PSUs (10 strata)	Stage 2 SSUs (PSU×2)	Stage 3 TSUs (SSU×2)	Stage 4 QSU (TSUs×15)	Stage 4 Respondents (QSU ×1)	
Sampled units		125	250	500	7500	7500	
Urban							
East-Urban	184852600	16	32	64	960	960	
Middle-Urban	102519900	9	18	36	540	540	
West-Urban	68055400	6	12	24	360	360	
Municipality	84416427	9	18	36	540	540	
Urban-rural mixed							
East-UR	45958400	4	8	16	240	240	
Middle-UR	60268500	5	10	20	300	300	
West-UR	37107800	3	6	12	180	180	
Rural							
East-Rural	284103100	25	50	100	1500	1500	
Middle-Rural	301401100	27	54	108	1620	1620	
West-Rural	242036200	21	42	84	1260	1260	
Total	1410719427	125	250	500	7500	7500	

Source: The 6th National Population Census Data in 2010.

Spatial Sampling: List-based Sampling for PSU (Stage 1)

PSU: Based on the 6th national population in 2010 census in China, the administrative stratification and probabilities proportional to size (PPS) sampling method was used to sample 60 PSU from all county-level units.

2010年第六次人口普查地级以上市人口地图



Spatial Sampling: List-based Sampling for SSU (Stage 2)

SSU: In each sampled PSU, 2 townships or street offices were drawn with PPS method based on 2010 population census data.

PSU: Qingdao City, Shandong Province

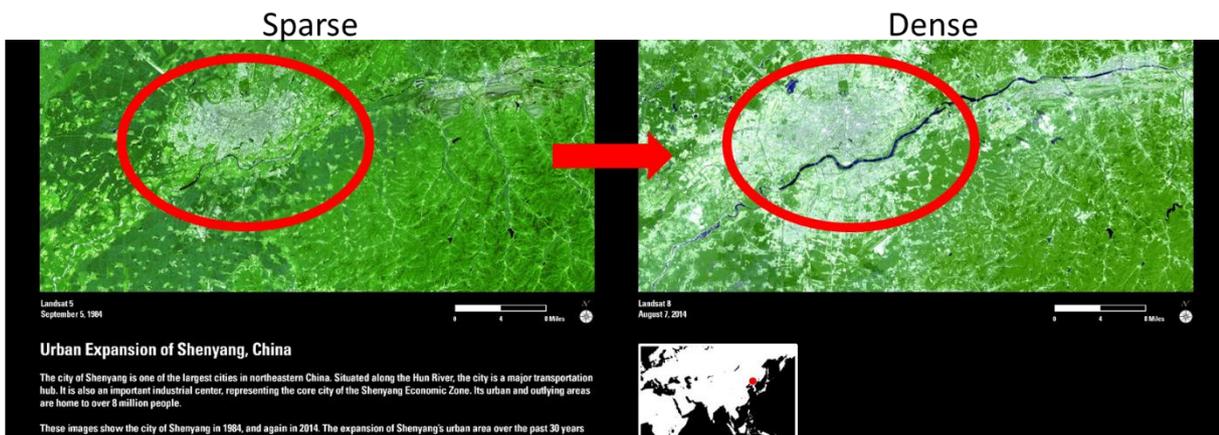


Spatial Sampling: Use GIS/GPS to Set Up Sampling Frame (Stages 3 and 4)

- Township and street office level population data from 2010 Census.
- Satellite Distance Data
- Estimate the level of urbanization by the density of dwellings.
- Night Lighting Data
- Predict the population by the density of night lighting.
- Google Earth
- Set up the sampling units of TSU and QSU.

Spatial Sampling: Satellite Distance Data

Estimate the level of urbanization by the density of dwellings.

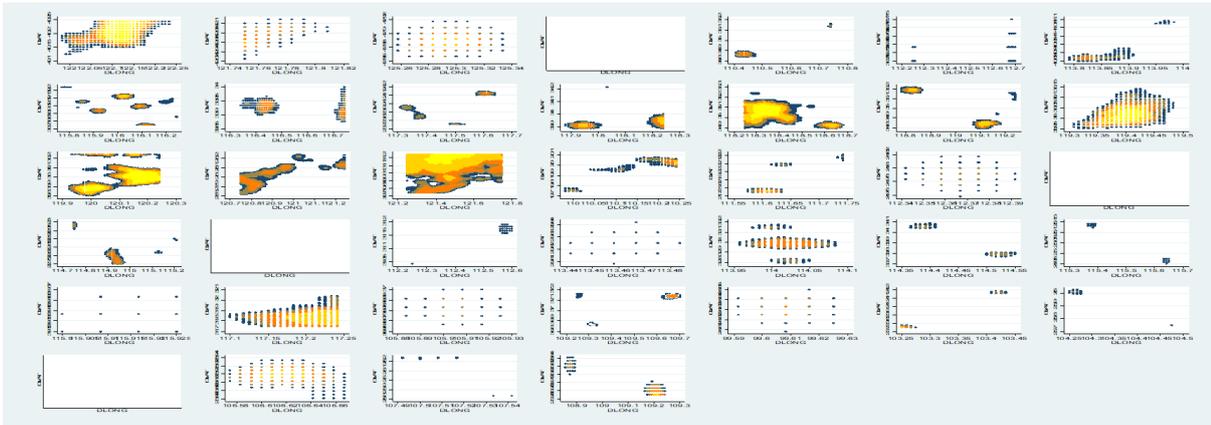


Source: <http://landsat.usgs.gov/>



Spatial Sampling: Night Lighting Density Data

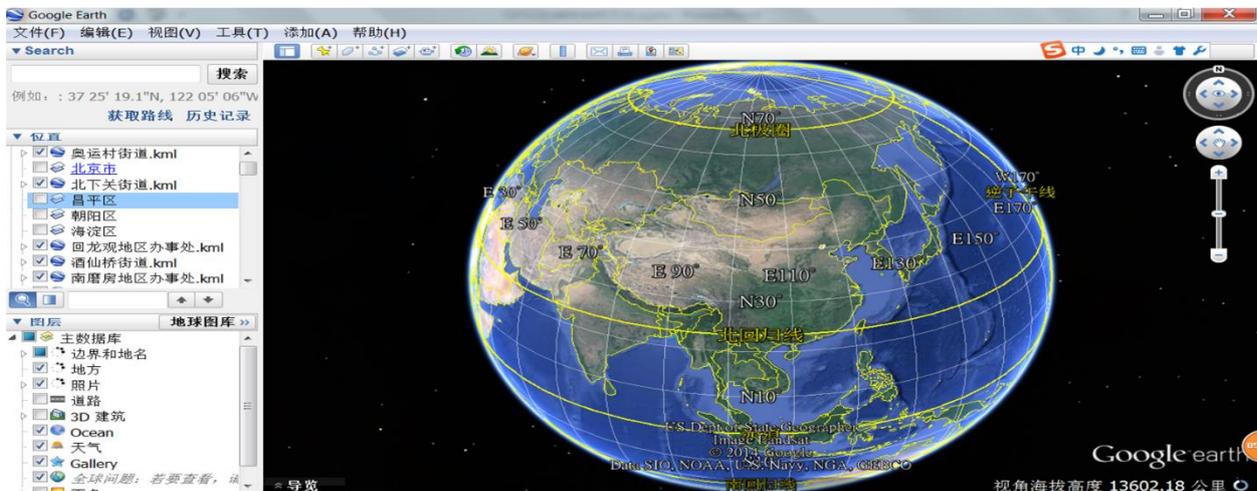
Predict the population for regions by the density of night lighting.



Source: <http://ngdc.noaa.gov/eog/>

Spatial Sampling: Google Earth

Set up the sampling units of TSU and QSU.



Source: <http://www.google.com/earth/index.html>

Spatial Sampling: GIS/GPS Sampling for TSU (Stage 3)

TSU: In each SSU, 3 half-squared minutes (HSMs) (30" * 30") were drawn by PPS. Among the 3 HSMs, 1 were taken as backup.



TSU: Jimo City: HSMs



Based on the assumption of even distribution of population in SSU, the size of population in each HSM was estimated.

Sampling Sheet on Population Density for HSMs

ID of HSMs	Latitude	Longitude	Percentage	Note: Commercial Building?
A1	E 125.05	N 46.37	40	Yes, 1.
A2	E 125.05.30	N 46.37	10	
A3	E 125.06	N 46.37	20	
B1	E 125.05.30	N 46.36.30	50	Yes, 1.
B2	E 125.06	N 46.36.30	20	
B3	E 125.06.30	N 46.36.30	35	
C1	E 125.07	N 46.36	10	Yes, 1.
C2	E 125.07.30	N 46.35	5	Yes, 1.
C3	E 125.05	N 46.35	3	

Spatial Sampling: GIS/GPS Sampling for QSU (Stage 4)

QSU: Within each HSMs, spatial square seconds (SSSs) (90m*90m) were randomly selected, the number of which is proportional to the estimated population in HSMs.



Spatial Sampling: Kish Sampling for Respondent (Stage 5)

Respondents: Within each listed address, residents aged 18 and above who have lived in the community for no less than 1 month were made candidates. Among them, respondent was chosen according to the Kish Grid.

Kish Grid for Respondents

2015年全国公民价值观调查-抽样地址登记表(举例)

半度/一分格: 30524 省/县级单位: 河南新乡市获嘉县 乡镇/街道: 太山乡 居委会/村: 王集村 省/县/乡级单位编码: 41302

抽样地址编号	半分格编号	小格编号	详细地址	户主姓名	性别	年龄	住房性质(1.平房; 2.楼房6层及以下; 3.楼房6层以上)	住房状况(与当地一般状况相比: 1.好; 3.中; 5.差)	信息来源			备注	
									村/居干群	入户访问	邻居		
25	232	46	太山乡王庄村34号	王有财	男	50	1	5		✓			
26	232	46	太山乡王庄村45号	王玉堂	男	70	1	3		✓			不在家
27	232	46	...	...	...	...	...	...		✓
14	232	23	...	...	...	...	...	...		✓
15	232	23	...	...	...	...	...	...		✓
16	232	23	太山乡王庄村106号	李磊	男	38	1	1	✓	✓			
17	232	23	太山乡王庄村117号	王锦西	女	43	1	1			✓	✓	经常外出
18	232	23	...	...	...	...	...	...		✓
19	232	23	...	...	...	...	...	...		✓
20	232	23	...	...	...	...	...	...		✓
21	232	23	...	...	...	...	...	...		✓
22	232	23	...	...	...	...	...	...		✓
23	232	23	...	...	...	...	...	...		✓
24	232	23	...	...	...	...	...	...		✓
1	232	12	...	...	...	...	...	...		✓
2	232	12	...	...	...	...	...	...		✓
3	232	12	...	...	...	...	...	...		✓
4	232	12	...	...	...	...	...	...		✓
5	232	12	...	...	...	...	...	...		✓
6	232	12	...	...	...	...	...	...		✓
7	232	12	...	...	...	...	...	...		✓
8	232	12	...	...	...	...	...	...		✓
9	232	12	...	...	...	...	...	...		✓
10	232	12	...	...	...	...	...	...		✓
11	232	12	...	...	...	...	...	...		✓
12	232	12	...	...	...	...	...	...		✓
13	232	12	太山乡王庄村217号	李宇	男	43	1	1			✓	✓	经常外出

抽样员签字: XX 日期: 2013年8月10日
 抽样地址登记时间: 分 第 1 页 共 5 页

Interviews were conducted face-to-face, in the respondent's house/apartment. The interviews took place between 4 pm and 9 pm on weekdays and between 9 am and 9 pm on weekends.

The overarching goal of the data collection quality control procedures is to ensure that the data collection activities yield the highest quality data possible.

Every completed questionnaire went through three rounds of checking: by the interviewer herself/himself right after leaving the dwelling, by his/her field supervisor in the field, and by the data manager in the survey research of Shanghai Jiao Tong University's office – they all had to sign their names on the face sheet of the questionnaires to resume responsibility.

A minimum rate of 20 percent of each interviewer's completed interviews were verified by the supervisor on location. Verifications were randomly assigned, which involved phone calls and/or re-visit to the respondent by the inspectors, asking, for example, a set of selected factual questions, and if necessary, re-interviewing. At the beginning of the data collection period, in fact, every interviewer's work was checked. The random checking continued throughout the entire data collection period.

The data manager carried out the third round checking after receiving the first batch of questionnaires from the field supervisors. All the completed and uncompleted questionnaires were required to be verified.

The verification included:

- Whether the address visited was correct;



- Whether the respondent was properly selected within household;
- Whether the respondent was actually interviewed;
- Whether the interviewing time was reasonable;
- Whether all should-be-asked questions were asked;
- Whether clear logic errors occurred;
- Whether the gift for the respondent was given;
- Other questionable issues.

The verification followed the specifications below:

- The supervisor read through all completed questionnaires submitted by the interviewers;
- All questionnaires with suspected problem(s) were verified, regardless whether they were selected into the 20% random checking pool;
- The distribution of the random checking was across all interviewers' work;
- All questionnaires conducted by an interviewer who was suspected of interview falsification had 100 percent of his or her work verified. In all such cases these interviews were re-taken.

15% of the completed interviews were controlled via telephone calls and 5% were controlled face-to-face.

Two weighting methods were applied on the database: design weighting and post-stratification weighting. Design weight was the reciprocal of each interviewee's selection probability (including weight of empty responses). Post-stratification weighting was based upon statistics found in figures pertaining to population in the 2010 Census. The population was stratified according to the same age groups, gender and education.

Based on the previous experience of the responsible organization, following conditions were taken into account during the planning of fieldwork:

- Lack of access to high-end residential neighbourhoods due to the refusal of interview by the whole community. These communities often require non-residents to register before entering the premises. Property management companies, worrying about residents potentially lodging complaints about letting outside interviewers disturbing their privacy, often deny the entry of field teams.
- Another challenge was speaking to interviewees face-to-face. Urban residential buildings often have electronic security doors. Interviewers cannot explain the purpose of the project and visit in person but only through electronic speakers, thus greatly diminishing their ability to persuade residents as well as the residents' perception of the interviewers' trustworthiness.

The responsible organization did not need any special permission from the state governing bodies in order to do the WVS-7.