



World Values Survey Wave 7 in Argentina: Sample Design.

The team that was responsible for conducting the last six waves of WVS in Argentina executed the fieldwork for the 7th wave of World Values Survey, using the same methodology.

The target population was citizens over the age of 18, residents of households. The individuals residing in institutions such as prisons, hospitals, etc. were excluded from the target population. The target sample size was +/- 1,000 citizens.

The complete national sample covered both urban and rural population. Taking as the sample frame the totality of localities and rural areas of the country, the localities were stratified into 6 geographic regions; Metropolitana, Pampeana, Noreste, Noroeste, Cuyo and Patagónica. Localities that belonged to each of the 6 regions were selected for the sample and no region or locality was left out of the sample except for exceptional circumstances such as bad weather conditions or other issues that might prevent access to the areas. The field team monitored the accessibility and if areas became inaccessible, they were removed from the sample frame prior to sampling.

As it had been done in previous waves, a multi-staged random sampling was conducted for the representation of urban and rural areas. The sampling process consisted of four stages.

During the first stage, the sample framework was taken as the totality of localities and rural areas of the country and all localities were stratified on the basis of two criteria: size and region. Location (primary sampling units) selection was systematically made, starting at random from the location cumulative population list, resulting in a proportional allocation by region and population strata. The process was controlled in such a way that each location had at least 20 interviews. Two areas were of obligatory inclusion: City of Buenos Aires and the 24 districts from Great Buenos Aires.

In the second stage of sample selection, the sample design used census radios which were units defined by territorial space with geographical limits and a certain number of dwellings (generally consisted of about 10 blocks and 300 households). In this second stage, within each urban agglomerate census radios (secondary sampling units) that were selected, a strategy of stratification considered the educational level of the household head. The reason for including this variable was to have a system of radios by socioeconomic status of households which minimized the effects of coefficients of variation of the main estimates to perform.

Example of census radios in Buenos Aires:

Each line corresponds to the information of census radio of a Department. The first line corresponds to the first radio of the first fraction of the Department Almirante Brown. There is a complete list of all BA radios.

Each radio contained in average 350 households.



MULATED	HOUSEHOLDS	POPULATION	DDD	FF	RR	GEOCODE	FACTOR	CORDON	INSE	ZONE	MARK	BARRIO	PARTIDO
1	268	918	28	1	1	ABF01R01	-1,84419	2	1	S	1	ALMTE BROWN	ALMTE BROWN
269	333	1662	28	1	2	ABF01R02	-1,89199	2	1	S	1	ALMTE BROWN	ALMTE BROWN
602	356	1249	28	1	3	ABF01R03	-1,47383	2	1	S	2	ALMTE BROWN	ALMTE BROWN
958	380	1222	28	1	4	ABF01R04	-1,46853	2	1	S	2	ALMTE BROWN	ALMTE BROWN
1338	269	935	28	1	5	ABF01R05	-1,90133	2	1	S	1	ALMTE BROWN	ALMTE BROWN
1607	271	917	28	1	6	ABF01R06	-2,2001	2	1	S	1	ALMTE BROWN	ALMTE BROWN
1878	322	1042	28	1	7	ABF01R07	-2,4039	2	1	S	1	ALMTE BROWN	ALMTE BROWN
2200	339	752	28	1	8	ABF01R08	-1,6166	2	1	S	2	ALMTE BROWN	ALMTE BROWN
2539	346	1187	28	1	9	ABF01R09	-2,00308	2	1	S	1	ALMTE BROWN	ALMTE BROWN
2166462	310	1039	861	17	17	VLF17R17	-0,2143	1	2	N	3	CARAPACHAY	VICENTE LOPE
2166772	316	942	861	17	18	VLF17R18	-0,66043	1	2	N	2	CARAPACHAY	VICENTE LOPE
2167088	345	1089	861	17	19	VLF17R19	-0,38638	1	2	N	3	CARAPACHAY	VICENTE LOPE
2167433	455	1064	861	2	1	VLF02R01	-1,41243	1	1	N	2	OLIVOS	VICENTE LOPEZ
2167888	492	1165	861	2	2	VLF02R02	-0,98431	1	2	N	2	OLIVOS	VICENTE LOPEZ

In the third stage, once the secondary units were selected, a systematic selection of households (tertiary units) was applied. A household was understood as a group of people, relatives or not, who live under the same roof according to a family regime, meaning they share food expenses. People who live alone was included as one household. A start block was chosen randomly and starting from that block, a route was designed to select 5 households within each radio set. The strategy at this stage was intended to establish a systematic selection of households that was performed by following determined procedures and routes, leaving no alternative to interviewers' own choice. The following of these procedures was registered by interviewers on a roadmap that allowed for the supervision team revision of contact by contact.

Each block within the ratio was randomly chosen by a random number (starting point) given in an Excel file. The field team was in charge of marking the selected block in the map by utilizing the digital maps of all census radios.

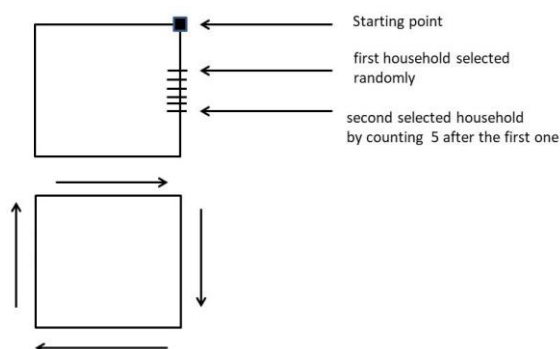
Map example:

For map generation, the team used MapInfo, which is a geographic information system (GIS) software product used for mapping and location analytics. MapInfo allowed to visualize, analyze, edit, interpret and understand the data and as a result, to reveal the relationships, patterns and trends. Thus, MapInfo helped the examination of spatial data within a dataset, symbolize features and create maps.



Selection procedure of household in each block: Interviewers were asked to stand in the left superior extreme of each block. From that point, they counted 5 households and interviewed number 5 (the 5th household). If the interview was successful, they counted another 5 households and interviewed number 5 (10th household) and so on. If the interview was unsuccessful, interviewers had to try the number 6,7,8 and so on. The idea was to do 5 interviews per selected block and to allow all households the same possibility of being included. In multistory buildings, a maximum of one interview was collected per building.

Household selection procedure was random. When interviewer was unable complete 5 interviews in selected block, she/he moved to block n° 2, then to 3 and so on, in a spiral, pre-determined manner, moving clockwise.



The fourth and last stage of selection was the selection of respondents within households. Only one person was interviewed in each household. The selection was controlled in terms of gender and age allocation, based on census information. The response rates of the interviews were carefully analyzed and registered as one of the following categories; No contact with selected person, Refusal at selected address/ selected respondent, Partial productive interview, Full productive interview and Other.

Rural areas have less than 2000 inhabitants in Argentina. There was a complete list of rural areas published by the National Census Institute of Argentina (INDEC). This list included towns of up to 500 inhabitants (there were approximately 800 locations of this type with around 2000 and 500 inhabitants). The rest of the rural areas were less densely populated areas on which there were no listing.



Nevertheless, for the selection of the sample, the actual weight of the rural population over the total population of the country was considered (whether or not they are listed locations). As a result, the number of rural surveys included in the sample approached the proportion of rural country. The rural sample locations considered in the sample were within the 800 rural locations available.

There were no maps that included census radios for the rural areas. In each rural location, enumerators were given a pre-defined route which aimed to homogeneously distribute the number of surveys to be collected. In a sample of 1000 cases, usually, around 4 or 5 rural locations were drawn.

The number of respondents per PSU changed according to the size of the cities. In PSU of bigger sizes, 3000 interviews were conducted, being 20 interviews the lowest number of interviews per PSU.

Example of a standard survey sample with 26 PSU (localities):

N PSU	SIZE	Location	Province	Region	Respondents	Sampling points
1	1	Capital Federal	Buenos Aires	Metropolitana	200	40
2	1	GBA	Buenos Aires	Metropolitana	300	60
3	2	Gran Córdoba *****Córdoba	Córdoba	Pampeana	20	4
4	2	Gran Rosario *****Santa Fe	Santa Fe	Pampeana	40	8
5	3	Gran La Plata *****Buenos Aires	Buenos Aires	Pampeana	20	4
6	3	Mar del Plata **General Pueyrredón Buenos Aires	Buenos Aires	Pampeana	20	4
7	3	Gran Mendoza *****Mendoza	Mendoza	Cuyo	20	4
8	4	Gran Salta *****Salta	Salta	NOA	20	4
9	4	Gran Resistencia **San Fernando Chaco	Chaco	NEA	20	4
10	4	Bahía Blanca **Bahía Blanca Buenos Aires	Buenos Aires	Pampeana	20	4
11	5	Gran San Fernando del Valle de Catamarca *****Catamarca	Catamarca	NOA	20	4
12	6	San Rafael **San Rafael Mendoza	Mendoza	Cuyo	20	4
13	6	General Roca **	Río Negro	Patagonia	20	4
14	6	Pergamino	Buenos Aires	Pampeana	20	4
15	7	GuauguayGuauguay Entre Ríos	Entre Ríos	Pampeana	20	4
16	7	Frías	Sgo. del Estero	NOA	20	4
17	7	Centenario **Confluencia Neuquén	Neuquén	Patagonia	20	4
18	8	Sunchales Castellanos Santa Fe	Santa Fe	Pampeana	20	4
19	9	Ibarreta Patiño Formosa	Formosa	NEA	20	4
20	9	Suipacha SuipachaBuenos Aires	Buenos Aires	Pampeana	20	4
21	10	Zavalla RosarioSanta Fe	Santa Fe	Pampeana	20	4
22	Rural	La Unión Salta	Salta	NOA	20	4
23	Rural	La Central **Rivadavia	Mendoza	Cuyo	20	4
24	Rural	Carnerillo **Juárez Celman	Córdoba	Pampeana	20	4
25	Rural	Fortín Cabo 1° Lugones Patiño	Formosa	NEA	20	4
26	Rural	Rancagua	Buenos Aires	Pampeana	20	4



The interviews were conducted face-to-face and only in the respondents' residence. The interviewing took place at working days and Saturdays. Fieldwork was carried out after working hours in order to find the working members of the family at home. Interviewers worked until about 9 pm.

Quality control of information is another decisive aspect in a survey, where reception, supervision and edition of material are also key factors during this process.

During fieldwork, the Project Manager randomly checked interviewers and accompanied them on some interviews. 20% of the complete interviews conducted face-to-face were back-checked. Supervision in Telephone interviews were conducted in situ (while interviews were being done) and online interviews were not back-checked as they were self-administered by interviewees.

First instance of editing was done by the interviewer itself at the end of each interview. In face-to-face fieldwork, once an interview was completed, a supervisor immediately checked to ensure that it was filled out in accordance with agreed parameters. In this department, 100% of the questionnaires were edited one by one, by experienced editing professionals. For this task, an Edition and Codification Instructive was prepared with the participation of DP Department, to make sure that the material to be input into magnetic format contained all the required information. Basically, control focused on three aspects;

- All questions have been completed
- All filters have been correctly applied
- The writing is readable and apt for data entry

In case of problems and inconsistencies with the data, forms were returned to the supervisors who, if necessary, arranged a new appointment to obtain the missing or incorrect information.

At this stage, the supervisor checked to make sure that all blanks were filled and all critical data had been collected. The legibility of the answers was checked. In many cases, interview teams gathered valuable information that was not part of the formal survey. These notes and marginal comments were captured in a way that made them available to the data entry team and researchers.

The enumerator corrected any missing or inconsistent data. Checking was implemented as close as feasible to the interview completion to make corrections as easy and as effective as possible.

A file of errors was kept with the aim of gaining information which would enable the optimization of future amendments and also would aid the improvement future interviews.

Supervisors randomly contacted interviewees and asked if the interview went well (i.e., did the enumerator ask all questions? was he professional? was the person satisfied with the interview? etc.). Through this supervision scheme, the different stages of the data collection process were verified: the respondent had been the right person for answering the questionnaire; the duration of the interview; the veracity of the information collected. Supervisors provided immediate feedback to any enumerator that required support. If necessary, the enumerator was replaced.



In addition to the previous controls, whether the sample met the criteria set out in the sample design was also checked.

Once fieldwork had finished, the Data processing team conducted two groups of Quality Control (QC) tests:

Tests – GROUP I: Errors in variables codes, questionnaire flow, skip patterns; number of missing values; etc. In general, these errors were hardly ever found as they were not valid in the questionnaire programming parameters.

Tests – GROUP II: Errors in data logical consistency, outliers, level of response rate for productivity variables.

Besides all standard DP quality checks already mentioned, prior to data delivery, TNS Argentina senior researchers who had previous experience with political and social research revision of the data within the country context, revised trends for every possible question.

All of the completed surveys were checked for appropriate survey length and appropriate location of the interviewer. 20% of the sample were supervised in order to check that questions were properly asked and the methodology of household selection had been applied correctly.

The dataset was weighted to match population statistics of each city, according to the National Census. Weighting criteria included gender, age and regional information.

The sample design was prepared in a way to closely replicate the population in not more than 5% delta.

There were no problems which the responsible organization faced during fieldwork. Since the re-establishment of democracy in Argentina in 1983, survey research has consolidated and it is now widely implemented in the country. Moreover, there were no sensitive topics that could not be covered in survey.