

Arab Barometer Fourth Wave Methodology

Overview

The fourth wave includes nationally representative face-to-face public opinion surveys in seven countries and territories conducted in 2016 and 2017: Algeria, Egypt, Jordan, Lebanon, Morocco, Palestine, and Tunisia. In most countries, the sample includes 1,200 citizens. Additionally, a sample of 300 Syrian nationals living amongst the general population (outside of refugee camps) was conducted in Jordan and Lebanon.

All interviews are conducted in the respondent's place of residence, which yields a higher response rate and more representative sample than other modes, especially phone or internet surveys. Face-to-face surveying also facilitates the development of a greater sense of trust between the respondent than the alternatives, meaning it is more likely that a respondent will provide a truthful answer in response to sensitive questions.

Universe, Population and Unit of Observation

Universe: The surveys include will provide national coverage of citizens ages 18 and above in all countries. The universe is comprised of the population living in both urban and rural areas and the results will be representative at the national level and also, by design, the governorate level.

Population: The survey is designed to be nationally representative of non-institutionalized adults ages 18 and above. By necessity, it does not include some citizens who are inaccessible, including those who are in hospitals, live at military bases, or are inmates in the country's prisons.

Unit of Observation: The surveys are conducted face-to-face in the respondent's place of residence. Only one respondent is eligible per household, meaning that although the unit of observation is the individual, technically the dwelling itself is the final unit of analysis. This strategy is employed, in part, because houses or places of dwelling are easily identifiable units in the field, which enables interviewers to more accurately identify the randomly selected unit, which in turn yields a more representative sample.

Sample Frame

The sampling frame covers all citizens ages 18 and above in each country. The methods used mean that every eligible respondent in the country has a known and calculable probability of being included in the sample. In some cases, small populations living in remote areas of the country may be excluded from the sampling plan. In no case was an area containing more than 2 percent of a country's population be excluded from the survey design.

Sampling Method

In seven countries and territories, the sample was drawn using stratified multi-stage cluster sampling, although the exact design varied to some extent across countries (see detailed country reports for more information). In these seven countries, the survey was stratified by governorate

(or similar) to ensure a geographic distribution of the interviews. The sample was then sub-stratified by urban-rural status and, in some cases, additional sub-strata based on unique population characteristics will also be made elsewhere. For example, in Palestine the sub-stratum includes urban, rural and refugee camps. Meanwhile, in Lebanon sect is used as a sub-stratum.

Stratified sampling is a means to ensure a greater reliability in sample by reducing the variance of the estimates. The geographic strata ensure that the sample is dispersed across the entire country. Because the strata are each unique and, when combined, they cover the entire population, this method yields nationally representative surveys.

Interviews were allocated to each stratum using probability proportional to size (PPS), meaning each stratum was allocated interviews relative to its population. Within each stratum, we randomly selected a number of primary sampling units (PSUs). The precise definition of the PSU unit differs across countries, but, in most cases, it is a pre-defined geographic unit that has been demarcated by the country's central statistical authority. However, in some cases, it is a standard unit that has been demarcated by our local partner. Within each PSU, blocks are defined as the ultimate sampling unit, normally containing between 100-250 households. Random sampling points were then selected within these blocks to determine the starting point for the interview and the subsequent random selection of dwellings within the block.

To ensure that men and women are equally represented in the survey, in Algeria, Jordan, Lebanon, Morocco, and Tunisia the gender of the respondent for each interview is pre-determined, with half the interviews assigned to men and the other half to women. However, there was no assignment by gender in Egypt or Palestine.

At the household level, the respondent who completes the survey is randomly selected by the computer based on a Kish table. In countries with a pre-specified gender for each interview, the Kish table is restricted to household members of this gender. If there is no respondent of this gender, then the interviewer implements selects a replacement household for this interview.

Fieldwork Training and Oversight

The ability to make valid inferences based on survey data depends on the quality of the survey. A key element of ensuring high quality implementation is the quality of training interviewers receive. The Arab Barometer has instituted a rigorous process for training prior to beginning fieldwork, including a multiday training led by members from our regional hub institutions and, frequently, the Project Director. A pretest is then carried out and carefully evaluated by the local team, Arab Barometer hub institutions, and the project leaders.

In the fourth wave the project began moving toward the use of computer assisted personal interviewing (CAPI) as a means to ensure higher data quality. Computers were used in Jordan, Morocco, and Tunisia, while paper and pencil interviewing (PAPI) was used in Algeria, Egypt, Lebanon, and Palestine.

Data Quality Considerations

Our team employs a number of quality control checks during and after fieldwork. While interviews are ongoing, supervisors oversee interviewers to ensure that they are carrying out the sampling plan. They also sit in on some interviews to ensure the instrument is being implemented correctly. At least 20 percent of respondents are also recontacted and are administered an abbreviated version of the instrument.

After fieldwork is complete, the data set is checked using a number of post-assessment techniques. These include a number of sophisticated tests that look for unusual patterns in the data or paradata. Additionally, the team uses specialized software (Percent Match) that flags near duplicate observations. This technique was developed by the Arab Barometer team to detect cases of likely data fabrication and has become a gold standard in the field of survey methodology.

Technical Information by Country

Country: Algeria

Field Period: May 3–16, 2016

Principal Researcher: Rabih Hamami

Partner: Okba Com Institut

Sample size: 1,200

Estimated Design Effect: 2.59

Effective Sample Size: 470

Margin of Error: 4.5%

Response rate: 70% (RR1)

Sampling method: The survey represents a national probability sample design of adults 18 years and older. It was conducted face-to face in Arabic and used a complex sample design, which included stratification and clustering. Algeria has 48 *wilayas* or provinces which were combined into larger geographic areas yielding three strata: the north, the highlands and the south). Interviews were distributed proportional to population size. Primary sampling units (PSUs) are 1,541 official districts. Each district is designated as either urban or rural depending on the population. Districts with more than 1,100 residents are designated urban while those with fewer are designated rural. Within each district, households were randomly selected in clusters of 10. Within each household, a Kish grid was used to select the final respondent informed by a quota for gender. A total of 790 respondents were interviewed in urban areas compared with 410 in rural areas.

Weighting method: Weighted for probability of selection and post-stratification weighted by age, gender and education.

Country: Egypt

Field Period: April 15 – 23, 2016

Principal Researcher: Dr. Abdel-Hamid Abdel-Latif

Partner: The Egyptian Research and Training Center

Sample size: 1,200

Estimated Design Effect: 1.25

Effective Sample Size: 959

Margin of Error: 3.2%

Response rate: 66% (RR1)

Sampling method: The survey represents a national probability sample design of adults 18 years and older. It was conducted face-to face in Arabic and used a complex sample design, which included stratification and clustering. The survey was stratified by governorate and further stratified by urban-rural. Five outlying governorates were excluded that combined are home to less than two percent of Egypt's population: Matruh, New Valley, North Sinai, Red Sea, and South Sinai. Interviews were distributed proportional to population size. Within each stratum, sampling blocks, which are designated by the Central Agency for Public Mobilization and Statistics (CAPMAS), were selected proportional to population size and served as the primary sampling unit. Within each sampling block, clusters of 10 households were randomly selected. Within each household, a Kish grid was used to select the final respondent. In total, 540 interviews were conducted in urban areas and 660 in rural areas.

Weighting method: Weighted for probability of selection and post-stratification weighted by age.

Country: Jordan

Field Period: March 9, 2016–March 16, 2016

Principal Researcher: Walid Al Khatib

Partner: Center for Strategic Studies, University of Jordan

Sample size: 1,200 Jordanian nationals

Estimated Design Effect (national sample): 1.23

Effective Sample Size: 973

Margin of Error: 3.1%

Additional sample: 300 Syrian nationals

Response rate: 80% (completed interviews / completed interviews + refusals)

Sampling method: The survey of Jordanian nationals represents a national probability sample design of adults 18 years and older. It was conducted face-to face in Arabic and used a complex sample design, which included stratification and clustering. The sample is composed of twelve strata representing the provinces of Jordan. The sample is further stratified by urbanity and interviews were distributed proportional to population size. Each governorate was then divided into primary sampling units (PSU) of blocks of 100 houses based on the 2015 census. Within each block, households were randomly selected in clusters of 10. Within each household, a Kish grid was used to select the final respondent informed by a quota for gender. A total of 940 respondents were interviewed in urban areas and 260 in rural areas. The survey of Syrian nationals represents a probability sample of Syrians living amongst the general population, meaning outside of refugee camps, in four northern governorates of Jordan: the Capital (Amman), Irbid, Mafraq and Zarqa. The design is similar to the survey of Jordanian nationals using a complex sample design, which included stratification and clustering. The sample was sub-stratified by urbanity and interviews were distributed proportional to population size. Each governorate was then divided into PSUs of blocks of approximately 100 houses based on the 2015 census, which included data for Syrian nationals. Within each household, a Kish grid was used to select the final respondent informed by a gender quota. A total of 290 respondents were interviewed in urban areas and 10 in rural areas.

Weighting method: Weighted for probability of selection and post-stratification weighted by age for Jordanian nationals; no weighting for Syrian nationals.

Country: Lebanon

Field Period: July 20 – August 16, 2016

Principal Researcher: Rabih Habr

Partner: Statistics Lebanon

Sample size: 1,200 Lebanese nationals

Estimated Design Effect (national sample): 1.52

Effective Sample Size: 790

Margin of Error: 3.5%

Additional sample: 300 Syrian nationals

Response rate: 64% (completed interviews / completed interviews + refusals)

Sampling method: The survey represents a national probability sample design of adults 18 years and older. It was conducted face-to face in Arabic and used a complex sample design, which included stratification and clustering. The survey was first stratified by the governorates of Lebanon: Beirut, Mount Lebanon, the North, Baqa'a, the South and Nabatieh. Additionally, the survey was stratified by socio-economic status and confessional identity for Shia, Sunni, Druze

and Christians. Within each stratum, the sample was further divided by the 571 official populated districts, which are akin to municipalities and their surrounding areas. Interviews were distributed proportional to population size. Districts are further divided into statistical blocks, which are units containing approximately 100-150 households. These statistical blocks serve as the primary sampling units (PSU). Households were randomly selected in clusters of 10. Within each household, a Kish grid was used to select the final respondent informed by a quota for gender. A total of 900 respondents were interviewed in urban areas and 300 in rural areas. The sample of Syrian nationals is based on estimates of the Syrian population living in Lebanon. The nearly 300,000 estimated households are distributed across 1,611 cadastral zones. Using PPS, statistical blocks were selected and serve as the PSU. Within each household, a Kish grid was used to select the final respondent informed by a quota for gender.

Weighting method: Weighted for probability of selection and post-stratification weighted by age and gender; no weighting for Syrian nationals.

Country: Morocco

Field Period: May 7 – June 11, 2016

Principal Researchers: Mhammed Abderrebi and Imen Mezlini

Partner: Hassan II University – Casablanca and One to One for Research and Polling

Sample size: 1,200

Estimated Design Effect: 1.07

Effective Sample Size: 1,124

Margin of Error: 2.9%

Response rate: 59% (RR1)

Sampling method: The survey represents a national probability sample design of adults 18 years and older. It was conducted face-to face in Arabic and used a complex sample design, which included stratification and clustering. The survey was stratified by the 16 designated regions of Morocco (used until 2010) and further stratified by urban-rural. Interviews were distributed proportional to population size. The PSU is district, which is unit designated by the national statistical authority that contains, on average 180-200 households. PSUs were randomly selected within each stratum. Within each district, blocks were designated by the local partner with, on average, three blocks per district. Within each block 8 households were randomly selected by a random walk. Within each household, individuals were selected randomly using a Kish table informed by a quota for gender. In total, 816 respondents were interviewed in urban areas and 384 in rural areas.

Weighting method: Weighted for probability of selection and post-stratification weighted by age and gender.

Country: Palestine (West Bank and Gaza)

Field Period: February 18 – 27, 2016

Principal Researcher: Khalil Shikaki

Partner: Palestinian Center for Policy and Survey Research

Sample size: 1,200

Estimated Design Effect: 1.82

Effective Sample Size: 659

Margin of Error: 3.8%

Response rate: 91% (completed interviews / completed interviews + refusals)

Sampling method: The survey represents a national probability sample design of adults 18 years and older. It was conducted face-to face in Arabic and used a complex sample design, which included stratification and clustering. The survey was stratified by the West Bank and Gaza and then by province within each region. The sample was further divided by type of settlement (urban, rural and refugee camp). Interviews were distributed proportional to population. Census blocks (PSU), which comprise approximately 150 residential units, represent the primary sampling unity (PSU). Households were randomly selected in clusters of 10. Within each household, a Kish grid was used to select the final respondent. A total of 820 respondents were interviewed in urban areas, 220 in rural areas, and 160 in refugee camps.

Weighting method: Weighted for probability of selection and post-stratification weighted by age and gender.

Country: Tunisia

Field Period: February 13 – March 3, 2016

Principal Researcher: Imen Mezlini

Partner: One to One for Research and Polling

Sample size: 1,200

Estimated Design Effect: 1.12

Effective Sample Size: 1,076

Margin of Error: 3.0%

Response rate: 56% (RR1)

Sampling method: The survey represents a national probability sample design of adults 18 years and older. It was conducted face-to face in Arabic and used a complex sample design, which included stratification and clustering. The survey was stratified by governorate and further stratified by urban-rural. Interviews were distributed proportional to population size. Within each stratum, delegations were selected proportional to population size. Within each delegation, sectors were selected proportional to size and within each sector blocks were randomly selected. Within each block 8 households were randomly selected by a random walk. Within each household, individuals were selected randomly using a Kish table informed with a quota for gender. In total, 816 respondents were interviewed in urban areas and 384 in rural areas.

Weighting method: Weighted for probability of selection and post-stratification weighted by age and gender.