AmericasBarometer 2023: Colombia

Technical Information

Country	Year	Sample Size	Weighted/Unweighted	Fieldwork dates
Colombia	2023	1,503	Self-weighted	May 16th – July 12th, 2023

LAPOP Lab AmericasBarometer 2023 Survey Round

The 2023 AmericasBarometer represents the 10th round of LAPOP Lab's main project, which marks a significant milestone in the realm of public opinion research in the Americas. Over the past decade, the AmericasBarometer has emerged as a leading source of data, providing valuable insights into the political, social, and economic landscape of the region. With its rigorous methodology and extensive coverage, the survey has been instrumental in understanding the diverse perspectives and attitudes of citizens across Latin America and the Caribbean. The AmericasBarometer permits valid comparisons across countries, and time, via a common core questionnaire and standardized methods. Over the years, the AmericasBarometer has interviewed over 409,000 respondents across the region.

In the 2023 round of the AmericasBarometer, LAPOP Lab switched back to its conventional data collection mode (Face-to-Face household surveys). At the heart of the survey's methodology lies a robust and complex sample design. Following the methodology of previous rounds, the 2023 AmericasBarometer continues to use the sample strategy introduced in the 2012 round of the surveys and also employed in the 2014, 2016/17, and 2018/19 rounds. This sample design continues to use, in almost all cases, the same stratification employed since 2004, making adjustments where necessary when census information is updated. The sample design aims for representative results at the primary stratum level, accounting for urban/rural areas and the size of municipalities. This approach ensures a thorough and nuanced understanding of public opinion across different geographic and demographic segments. By stabilizing primary sampling unit (PSU) and cluster sizes and employing Probability Proportional to Size (PPS) method for PSU selection, the survey maximizes efficiency and minimizes intra-class correlation.

As in previous rounds of the AmericasBarometer, we conducted online surveys in the U.S. and Canada. In Haiti and Nicaragua CATI interviews were conducted using Random-Digit Dialing (RDD) using mobile phone numbers as sampling frames.

The quality control process for the AmericasBarometer 2023 round continues using the LAPOP's Fieldwork Algorithm for LAPOP Control over survey Operations and Norms (FALCON). FALCON gathers information about each interview such as recordings, interviewer images, question and questionnaire timing, and interviewer performance indicators that are daily monitored during data collection to guarantee that each interview meets LAPOP Lab's quality control standards.

For the 2023 AmericasBarometer, LAPOP Lab collected data in 26 countries in the Americas, from January to August 2023. All country datasets and reports available for download for free at www.LapopSurveys.org.

The remaining pages of this technical note describe the sample design of the 2023 AmericasBarometer survey in Colombia.

2023 AmericasBarometer: Colombia

This survey was carried out between May 16th and July 12th, 2023, as part of LAPOP's 2023 AmericasBarometer. It is a follow up to LAPOP's AmericasBarometer Colombia surveys of 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018, and 2021. The 2023 survey fieldwork was carried out by IPSOS on behalf of LAPOP. Key funding came from Vanderbilt University, USAID, the Inter-American Development Bank, Duke University, and UC Berkeley.

Questionnaire pretesting took place from January 17th to 19th and from April 11th to 13th 2023 and interviewer training took place from April 11th to 13th, 2023. Pilot surveys were conducted from May 4th to May 5th. A full copy of the 2023 AmericasBarometer Colombia questionnaire can be found at LAPOP's website at www.LapopSurveys.org.

The project used a national probability sample design of voting-age population, with a total N of 1,503 people involving face-to-face interviews conducted in Spanish. In the 2023 round, LAPOP used the SurveyToGo© (STG) software, running on Android tablets and phones, to conduct 100% of the interviews.
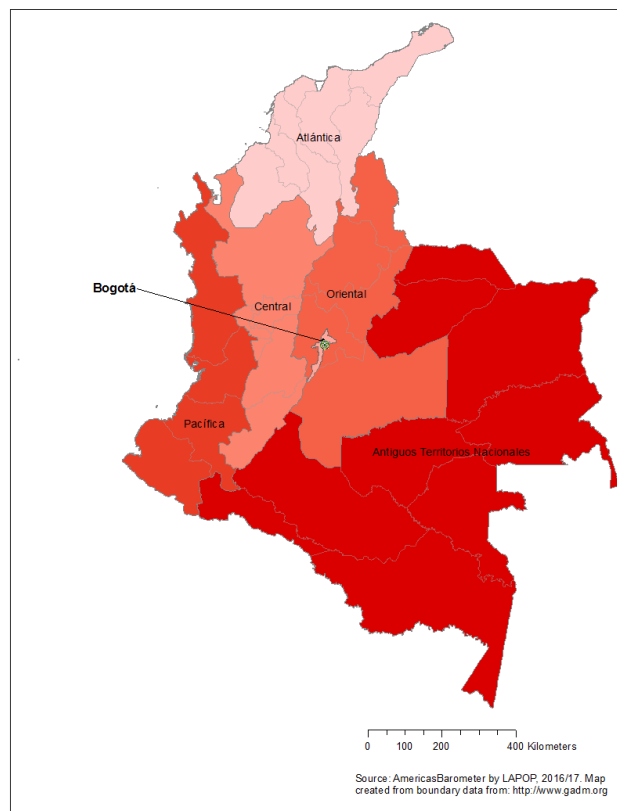
The survey used a complex sample design, including stratification and clustering. The sample was developed by LAPOP, using a multi-stage probability design and was stratified by the 6 major regions of the country: Atlántico, Bogotá, Central, Oriental, Pacífica, and Rest of the Country (Antiguos Territorios Nacionales). The sample is representative at the national level and of 5 out of the 6 regions, with the exception of Antiguos Territorios Nacionales, as shown in the map below (see Figure 1). Each stratum was further sub-stratified by size of municipality[1] and by urban and

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[1] The sample design includes three different strata of municipalities classified according to their size. Municipalities were grouped in sizes as follows: (1) Small municipalities with less than 25,000 inhabitants, (2)

rural areas within municipalities. Respondents were selected in clusters of 6 in urban and rural areas. Reported statistics or statistical analyses should be adjusted for the design effect due to the complex design of the sample.[2]

The sample frame used for the sample is the 2005 Population Census, adjusted with information from the 2018 Population Census. The sample is representative of voting-age population at the primary stratum level (except for Antiguos Territorios Nacionales), by urban/rural areas, and by size of the municipalities. No areas or regions of the country, except from the islands, were excluded from the design. There were 23 sampling point substitutions during fieldwork.

Figure 1: Sample Stratification in Colombia

Source: AmericasBarometer by LAPOP, 2016/17. Map created from boundary data from: http://www.gadm.org

The sample design consists of 63 primary sampling units and 252 secondary sampling units (sampling points) across 26 departments in Colombia. The sample achieved includes a total of 1,183 people in urban areas and 320 in rural areas. The estimated margin of error for the survey is ± 2.45. However, we recommend computing the margin of error for each variable considering the design effects. The final sample achieved in the survey is unweighted.

Medium-sized municipalities with between 25,000 and 100,000 inhabitants, (3) Large municipalities with more than 100,000 inhabitants.

[2] For more information visit http://www.vanderbilt.edu/lapop/survey-designs.php

**Table 1: Sample sizes by Strata and Municipality
Size in the 2023 AmericasBarometer Survey in Colombia**

Strata	Sample Size by Design	Number of Interviews (Unweighted)
Atlántica	312	312
Bogotá	264	264
Central	360	360
Oriental	288	288
Pacífica	240	239
Rest of the Country (Antiguos Territorios Nacionales)	48	40
Total	**1,512**	**1,503**
Size of Municipality		
More than 100,000 inhabitants	984	983
Between 25,000 and 100,000 inhabitants	288	280
Less than 25,000	240	240
Total	**1,512**	**1,503**

Weighting of the Colombia datasets

The dataset contains a variable called "wt" which is the "country weight" variable. Since in the case of Colombia the sample is self-weighted, the value of each case =1. When using this dataset for cross-country comparisons, LAPOP reweights each country data set in the merged files so that each country has an N of 1,500. The weight variable for cross-country comparisons is called "weight1500." In SPSS, this is done via the "weight" command. Weights are already activated in SPSS datasets. In Stata, the svyset command to weight the data and declare the sampling information to correctly compute standard errors that take into account the design effects is as follows: for single country, single year studies, the command is **svyset upm [pw=wt], strata(strata)**; for cross-country and/or cross-time studies, the command is **svyset upm [pw=weight1500], strata(strata)**. Stata datasets are preset; however, users must use the svy prefix with estimation commands to compute the weighted statistics and correct standard errors (see **help svy_estimation** within Stata for more information).

Quality Control in Colombia

In the 2023 AmericasBarometer, Quality Control was based on FALCON-CATI© (Fieldwork Algorithm for LAPOP's Control over Survey Operations and Norms). It includes, but is not limited to, an interviewer identity monitoring check, time checks, a reading control check, and data fabrication and falsification audits. The system also includes a quality control score that assigns penalties (or demerits) to interviews during the audit. In this system, higher scores indicate more

serious errors, and we refuse to accept (that is, we require the cancelation of) low quality interviews.[3]

The local firm audited 100% of interviews. All interviews were also run through LAPOP's automatic flagging system, and then LAPOP's team manually audited a subset of the interviews. A total of 404 interviews were canceled in Colombia in the 2023 AmericasBarometer. The most predominant reasons for canceling an interview were interviewers offering an interpretation of questions, not reading questions completely or correctly, and reading issues on the study information sheet. There were 35 incomplete/early termination interviews.

Response Rates in Colombia

In this section we present the survey response rates.[4] The AmericasBarometer response rates are based on AAPOR's Standard Definitions. The response rate is the number of complete interviews with reporting units divided by the number of eligible reporting units in the sample. LAPOP Lab has programmed in STG a module that permits the accurate recording of the number of refusals, ineligible respondents, or non-contact. This in turn allows for estimating the response rates in each country. Two definitions of response rates are provided below, ranging from the definition that yields the lowest rate to the definition that yields the highest rate, depending on how partial interviews are considered and how cases of unknown eligibility are handled.

Response rates reported below are:

Response Rate 1 (RR1) $= \dfrac{C}{C+P+R+N+O+UH+UO}$

Response Rate 3 (RR3) $= \dfrac{C}{C+P+R+N+O+e(UH+UO)}$

Where: where C refers to completed interviews, P to partial interviews, R to refusals, N for non-contacts, O for others, UH for unknown if household, UO to unknown others, and e is the eligibility rate calculated using the CASRO method: e=Eligible/(Eligible + Ineligible).

Table 2: Response Rates in the 2023 AmericasBarometer Survey by Country

Country	RR1 (%)	RR3 (%)
Argentina	8.8	23.8
Bahamas	27.2	31.4
Belize	34.9	42.0
Bolivia	15.6	22.7
Brazil	28.1	32.5
Chile	39.0	42.0
Colombia	31.7	39.1
Costa Rica	9.2	22.4
Dominican Republic	19.0	48.0
Ecuador	14.5	26.2
El Salvador	7.3	10.6
Grenada	56.0	59.7
Guatemala	39.6	43.1
Haiti*	6.6	10.6
Honduras	23.0	36.3
Jamaica	27.9	35.0
Mexico	19.6	31.1
Nicaragua*	8.9	9.8
Panama	35.0	40.9
Paraguay	28.5	39.0
Peru	13.3	28.6
Suriname	42.0	51.3
Trinidad & Tobago**	--	--
Uruguay	12.7	24.9
LAC REGION	**16.1**	**25.2**

* Response rates based on CATI surveys in Haiti and Nicaragua

** Disposition codes not registered in Trinidad and Tobago in 2023

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