VANDERBILT® LAPOP AmericasBarometer Barómetro de las Américas

AmericasBarometer 2021

Technical Information

LAPOP LAB AmericasBarometer 2021 Survey Round

The 2021 AmericasBarometer study is based on interviews with 64,352 respondents in 22 countries. Nationally representative surveys of voting age adults were conducted in all major languages, using mobile phone surveys in Latin America and the Caribbean and web surveys in the United States and Canada.

Table 1: Sample sizes and Sampling errors in the 2021 AmericasBarometer

Country	Sample Size	Sampling Error[1]
Mexico	2,998	±1.79%
Guatemala	3,000	±1.79%
El Salvador	3,245	±1.72%
Honduras	2,999	±1.79%
Nicaragua	2,997	±1.79%
Costa Rica	2,977	±1.80%
Panama	3,183	±1.74%
Colombia	2,993	±1.79%
Ecuador	3,005	±1.79%
Bolivia	3,002	±1.79%
Peru	3,038	±1.78%
Paraguay	3,004	±1.79%
Chile	2,954	±1.80%
Uruguay	3,009	±1.79%
Brazil	3,016	±1.78%
Argentina	3,011	±1.79%
Dominican Republic	3,000	±1.79%
Haiti	3,088	±1.76%
Jamaica	3,121	±1.75%
Guyana	3,011	±1.79%
United States	1,500	2.50%
Canada	2,201	±2.09%

[1] Confidence intervals based on unweighted sample sizes. For cross-national analysis purposes, LAPOP weights each sample to 1,500. These sampling errors are based on SRS.

LAPOP Lab is a pioneer in survey research methods in the Latin America and Caribbean (LAC) region. LAPOP Lab's AmericasBarometer is a unique tool for assessing the public's experiences with democratic governance. The AmericasBarometer permits valid comparisons across individuals, regions, countries, and time, via a common core questionnaire and standardized methods.

The 2021 AmericasBarometer represents the 9th round of this comparative project. In 2020 and through 2021, for surveys in the LAC region, LAPOP Lab switched from its conventional data collection mode (Face-to-Face household surveys) to Computer-assisted Telephone Interviewing (CATI). We made this change in order to minimize risks associated with the COVID-19 pandemic.

This change affected our sampling strategy. LAPOP Lab has traditionally designed complex, area probability samples using censuses as sampling frames to select survey respondents[2]. With the adoption of CATI, LAPOP Lab transitioned to Random-Digit Dialing (RDD) using mobile phone numbers as sampling frames. This sampling method has the advantage of covering a more dispersed sample of the population relative to Face-to-Face (FtF), although it only includes individuals who have access to functioning mobile phones. In addition, RDD can more easily incorporate certain hard-to-reach populations.

Classic sampling methods in the U.S. for telephone survey research have typically involved list-assisted landline RDD (AAPOR Cell Phone Task Force 2010).[3] More recently, however, survey methodologists have incorporated mobile phone numbers into sampling frames. In some cases, such as the U.S., dual sampling frames that include landline and mobile phone numbers are considered best practice in CATI studies. While this has been the case in the U.S., there is comparatively lower landline coverage in the LAC region. Data from the AmericasBarometer show that from 2004 to 2018/19, landline coverage in LAC households declined from 42 to 28%. In contrast, mobile phone coverage increased from 33 to 90% in the same period.

A World Bank report[4] corroborates the high rate of mobile phone penetration found in the AmericasBarometer. The report shows that as early as 2012, nearly 98% of the region's population had access to mobile phones, and 84% of LAC households had a subscription with some type of mobile service. A more recent report by the International Telecommunication Union (UTI) shows that in 2018, mobile penetration reached 104% in Latin America, just below East and Central Europe, where this metric reaches 154%, and Western Europe, where it reaches 129%. After a

[2] In some cases, such as Mexico, voter registry information is combined with census data to create the sampling frame.

[3] AAPOR. 2010. "Cell Phone Task Force Report: New Considerations for Survey Researchers When Planning and Conducting RDD Telephone Surveys in the U.S. With Respondents Reached via Cell Phone Numbers." AAPOR.org.

[4] World Bank. 2012. Information and Communications for Development 2012: Maximizing Mobile. Washington, DC: World Bank. DOI: 10.1596/978-0-8213-8991-1; website: http://www.worldbank.org/ict/IC4D2012.

cost/benefit analysis, LAPOP Lab determined that using a single frame of mobile phone numbers is relatively more efficient than using dual frames.[5]

With the exception of the U.S. and Canada AmericasBarometer surveys (that are carried out through self-administered online surveys), LAPOP Lab carried out single frame mobile phone interviews in partnership with local survey firms throughout the Americas. All data in the LAC region were collected with SurveyToGo© (STG), a data collection and management software that runs on Windows, and Android and iOS tablets and phones. Survey firms utilized predictive, automatic, or manual dialing systems to make the calls. For quality control purposes, firms recorded and stored in a secured cloud domain the audio of the 100% of the interviews.[6,7] In the 2021 AmericasBarometer, LAPOP Lab has continued a tradition of innovation, with improvements in monitoring interview quality on a daily basis during the course of fieldwork.[8]

The target sample size for LAC region countries in the 2021 AmericasBarometer was 3,000 interviews with an overall length of about 25 minutes. To achieve this goal the questionnaire was a split-design, with approximately half the respondents randomly assigned to "Core A" and about half randomly assigned to "Core B". Users are advised to consult the questionnaires for more information. Variables names starting with CA and CB in the questionnaire refers to Core A and Core B respectively. Also, each dataset contains a variable called "***core_a_core_b***" that distinguish questions included in each core.

All country datasets and reports available for download for free at www.LapopSurveys.org.

2021 AmericasBarometer Sample Design

In our continued effort to collect high-quality data, and therefore, produce high-quality studies, the LAPOP Lab adopted the following sample design strategy for CATI surveys.

Universe, Population, and Unit of Observation

Universe: The survey provides national coverage of voting-age individuals in each country in 2021.

Population: The survey collects information from a nationally representative sample of voting-age respondents, who are 18 years of age or older (or 16 years of age and older in Nicaragua, Argentina, Brazil, and Ecuador), who are citizens or permanent residents of the country and have access to

[5] For more information, see "Sampling in the 2021 Round of the AmericasBarometer: Transitioning from Face-to-face to Telephone Sample Design." (forthcoming)
[6] LAPOP Lab does not make available any direct identifiers. During datasets processing, LAPOP Lab ensures anonymity and minimizes the risk of breaches of confidentiality.
[7] Due to the increasingly sensitive situation in Nicaragua, LAPOP lab decided not to record the interviews in that country in order to offer survey participants an additional layer of privacy.
[8] For additional information on quality control, see LAPOP's Methodological Note: "Improving Quality in Phone Surveys via LAPOP's Multi-Faceted FACLCON-CATI Approach" By Sebastián Larrea, Valerie Schweizer, and Elizabeth J. Zechmeister (May 2021). Available at: https://www.vanderbilt.edu/lapop/insights/IMN008en.pdf

a functioning telephone. The study excludes individuals with access only to business telephone lines and people with no cellphone or landline coverage.

Unit of Observation: The statistical unit of observation is the individual, even though the survey contains questions that pertain to the household in which the individual resides.

Sampling Frame and Sample

The RDD sampling frame corresponds to all possible telephone numbers available in the country. Each company needs to obtain the national Telephone Numbering System and the country's Numbering Plan (or its equivalent) to design the sample. The frame includes all possible numbers that can be generated using (a) root numbers (or prefixes) for cellphones and (b) area codes for landlines (where appropriate). This ensures that no ethnic group or geographical area is intentionally excluded from the sampling frame.

Final unit of selection

The cellphone number is the final unit of selection. In other words, the survey is conducted with any eligible individual who answers the call. Interviewers calling mobile phone numbers screen informants who answer the call to determine their eligibility. The study excludes business-only mobile phones.[9]

Callbacks

LAPOP Lab instructed interviewers to call during business hours and on weekends, except when the potential respondent requested an appointment outside that timeframe. Callbacks after unsuccessful attempts were staggered over times of day and days of the week to maximize the chance of contacting informants and to minimize nonresponse. If no one was available to answer our call, we instructed interviewers to call back at least 4 times before a final disposition was made for that number.

Adaptative response design

Mobile phone coverage and response rates vary across socio-demographic groups, introducing survey errors that can potentially lead to biased estimations. To mitigate these sources of error, LAPOP Lab used a "responsive design" strategy.[10] In this strategy, our team continuously monitors both collected data and para-data with the goal of reducing bias in survey estimates without significantly increasing the costs of the survey. More specifically, we pre-identify elements that can affect costs and errors of survey estimates, monitor those elements during the initial data collection stages, and adjust those elements while data collection is in progress. With the purpose

[9] A screening question was included in the questionnaire to identify business-only cellphones.
[10] For more information about "responsive design" strategy, see Groves and Heeringa (2006) here: https://deepblue.lib.umich.edu/bitstream/handle/2027.42/71787/j.1467-985X.2006.00423.x.pdf;sequence=1

of balancing our samples to mirror the distributions of high-quality benchmarks, we screen out individuals when necessary from overrepresented population group(s) during the final stages of data collection. Our goal in this approach is to keep the weighting effect below 1.5.

Weighting of country datasets

The dataset contains a variable called "wt" which is the "country weight" variable. Since in the case of 2021 Americas Barometer Survey weighted, the variable "wt" must be used in the estimations. Table 1 shows the unweighted sample size in each of the and by demographic characteristics.

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).

2021 AmericasBarometer Fieldwork dates

Fieldwork dates for each country for the 2021 round are reported in Table 2.

Table 2: Fieldwork dates by country 2021 AmericasBarometer

	Fieldwork Start Date	Fieldwork End Date
Mexico	March 26th, 2021	July 11th, 2021
Guatemala	April 30th, 2021	July 31st, 2021
El Salvador	April 21st, 2021	June 4th, 2021
Honduras	May 1st, 2021	July 19th, 2021
Nicaragua	June 3rd, 2021	August 28th, 2021
Costa Rica	March 10th, 2021	June 12th, 2021
Panama	February 17th, 2021	April 18th, 2021
Colombia	March 19th, 2021	May 26th, 2021
Ecuador	June 3rd, 2021	July 20th, 2021
Bolivia	April 16th, 2021	June 16th, 2021
Peru	January 22nd,2021	March 26th,2021
Paraguay	June 11th, 2021	August 19th, 2021
Chile	February 17th, 2021	May 22nd, 2021

Uruguay	February 2nd, 2021	March 13th, 2021
Brazil	May 25th, 2021	June 30th, 2021
Argentina	February 1st, 2021	April 27th, 2021
Dominican Republic	March 27th, 2021	June 1st, 2021
Haiti	May 12th, 2021	June 25th, 2021
Jamaica	May 26th, 2021	July 21st, 2021
Guyana	May 18th, 2021	June 30th, 2021
United States	July 19th, 2021	July 25th, 2021
Canada	July 2nd, 2021	July 7th, 2021

Quality Control

In the 2021 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. 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.

Response Rates

In this section we present the survey response rates.[11] 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) $= \frac{C}{C+P+R+N+O+UH}$

[11] For additional information on how response rates are estimated, see LAPOP's Methodological Note: "How Does LAPOP Calculate Response Rates? By Zachary Warner and Gabriel Camargo-Toledo (June 2019). Available at: https://www.vanderbilt.edu/lapop/methods-005rev.pdf

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

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 3: Response Rates in the 2021 Americas Barometer Survey by Country

Country	RR1 (%)	RR3 (%)
Argentina	0.7	1.0
Bolivia	7.9	1.0
Brazil	22.1	22.5
Chile	7.9	14.8
Colombia	10.3	10.7
Costa Rica	5.3	6.1
Dominican Republic	16.6	19.7
Ecuador	11.2	17.1
Guatemala	9.7	14.9
Guyana	20.4	23.5
Honduras	0.8	7.9
Haiti	12.4	13.2
Jamaica	7.3	9.8
Mexico	0.7	0.8
Nicaragua	1.0	1.4
Panama	5.0	5.4
Peru	1.8	2.8
Paraguay	1.2	1.4
El Salvador	4.2	5.8
Uruguay	1.4	1.4
LAC REGION	**2.3**	**4.0**

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