

# AmericasBarometer, 2016/17

## Technical Information

### LAPOP AmericasBarometer 2016/17 round of surveys

The 2016/17 AmericasBarometer study is based on interviews with 43,454 respondents in 29 countries. Nationally representative surveys of voting age adults were conducted in all major languages, using face-to-face interviews in Latin America and the Caribbean and web surveys in the United States and Canada. Samples in each country were developed using a multi-stage probabilistic design (with quotas at the household level for most countries), and were stratified by major regions of the country, size of municipality and by urban and rural areas within municipalities.

**Table 1: Sample sizes and Sampling errors in the 2016/17 AmericasBarometer**

Country	Sample Size	Sampling Error <sup>1</sup>
<b>Mexico/Central America</b>		
Mexico	1,563	2.5%
Guatemala	1,546	2.5%
El Salvador	1,551	2.5%
Honduras	1,560	2.5%
Nicaragua	1,560	2.5%
Costa Rica	1,514	2.5%
Panama	1,521	2.5%
<b>Andean/Southern Cone</b>		
Colombia	1,563	2.5%
Ecuador	1,545	1.9%
Peru	2,647	2.4%
Bolivia	1,691	2.5%
Paraguay	1,528	2.4%
Chile	1,625	2.5%
Uruguay	1,515	2.5%
Brazil	1,532	2.5%
Venezuela	1,558	2.5%
Argentina	1,528	2.5%

<sup>1</sup> 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 and not adjusted for stratification and clustering. For information on the impact of the complex sample design on confidence intervals, see section VII of this document.

<b>Caribbean</b>		
Antigua and Barbuda	1,002	3.1%
Dominica	1,016	3.1%
Grenada	1,004	3.1%
Dominican Republic	1,518	2.5%
Guyana	1,576	2.5%
Haiti	2,221	2.1%
Jamaica	1,515	2.5%
St. Kitts and Nevis	1,008	3.1%
St. Vincent and the Grenadines	1,017	3.1%
St. Lucia	1,019	3.1%
<b>United States and Canada</b>		
Canada	1,511	2.5%
United States	1,500	2.5%

The Latin American Public Opinion Project (LAPOP) is a pioneer in innovations in survey research. In the 2016/17 round of the AmericasBarometer, LAPOP has continued this tradition of innovation, with heretofore unprecedented improvements in monitoring interview quality on a daily basis during the course of fieldwork. This was done by making significant advances in the use of

As per the sample design, the 2016/17 round of the AmericasBarometer continues to use the sample strategy introduced for the first time in the 2012 round of the surveys and that was also employed in 2014. 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 samples are all representative at the stratum level. The new design, however, stabilized the PSU and cluster sizes, with the selection of each PSU based on PPS (Probability Proportional to Size). Within PSUs, clusters are also standardized (typically 6 interviews) to minimize intra-class correlation while taking advantage of economies of fieldwork that simple random selection of interviews within the entire PSU would not make possible.

The tradeoff continues to make the sample design very efficient with very low intra-class correlations. With the cluster and PSU sample size uniformity, the LAPOP samples are now also representative within each selected municipality, to enable the use of the municipality as a unit of analysis for multilevel statistical analysis. However, with the small sample sizes at the PSU level that our design produces, confidence intervals at the level of each PSU are, by definition, wide. Users of the data should note that while the stratification incorporates all major regions of the country (exceptions include islands, such as the Galapagos in Ecuador or San Andrés in Colombia, but they do include the Bay Islands of Honduras), and therefore can be reliably used to analyze differences among strata, the PSUs selected normally represent only a small fraction of the total coes among strat

dwellings that are shared with other households. For this reason, it is more appropriate to consider the dwelling as the final unit of analysis. Additionally, the dwelling is an easily identifiable unit in the field, with relative permanence over time, a characteristic that allows it to be considered as the final unit of selection.

## Sample frame

The sampling frame covers 100% of the eligible voting age population in the surveyed country. This means that every eligible person in the country has an equal and known chance of being included in the survey sample. It also means that no particular ethnic group or geographical areas are excluded from the sampling frame unless the country sample design indicates otherwise. For example, certain Island areas and territories might be excluded. See the country study sample descriptions for such exceptions.

## Sampling Method

The sampling method chosen takes into consideration a series of elements pre-established by LAPOP.

On the basis of these requirements, the method that is used corresponds to a stratified multi-stage **cluster sampling**. The sample is stratified based on three factors:

- 1) Size of the Municipalities
- 2) Urban/Rural areas
- 3) Regions

The stratified sampling ensures a greater reliability in our sample by reducing the variance of the estimates. Stratification improves the quality of estimates, with the sole condition that the whole sample unit belongs to only one stratum, and the strata in combination cover the total population. Stratification also enables us to ensure the inclusion in the sample of the most important geographic regions in the country while requiring geographic sample dispersion.

## Stratification

Stratification is the process by which the population is divided into subgroups. Sampling is then conducted separately in each subgroup. Stratification allows subgroups of interest to be included in the sample whereas in a non-stratified sample some key subgroups may have been left out due to the random nature of the selection process. In an extreme case, samples that are not stratified can, by chance, exclude the nation's capital or largest city. Stratification helps us increase the precision of the sample. It reduces the sampling error. In a stratified sample, the sampling error depends on population variance within strata and not between them.

## 2016/17 AmericasBarometer Survey: Weighting of country datasets

Most of the 2016/17 AmericasBarometer samples are self-weighted except for Bolivia, Guyana, Haiti, Peru, United State and Canada. Each country data set contains a variable called WT which is the "country weight" variable. In countries in which the sample is self-weighted, the value of each case = 1. When using this dataset for cross-country comparisons, in order to give each country in the study an identical weight in the pooled sample, 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, one should use the svyset command to weight the data and declare the sampling information to correctly compute standard errors that take into account the design effects. The command for single country, single year studies is: **svyset upm [pw=wt], strata(estratopri)**. For cross-country and/or cross-time studies, the command is: **svyset upm [pw=weight1500], strata(strata)**. These declarations have been made in Stata datasets. However, you 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).

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**Caribbean**

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Antigua and Barbuda	January 9th, 2016	February 8th, 2016
Dominica	February 3rd, 2016	March 20th, 2016
Grenada	January 25th, 2016	February 18th, 2016
Dominican Republic	October 22nd, 2016	December 3rd, 2016
Guyana	February 17th, 2016	March 23rd, 2016
Haiti	April 18th, 2017	June 2nd, 2017
Jamaica	February 14th, 2017	April 15th, 2017
St. Kitts and Nevis	January 9th, 2016	March 14th, 2016
St. Vincent and the Grenadines	January 19th, 2016	February 14th, 2016
St. Lucia	February 22nd, 2016	March 20th, 2016

available. However, that is impossible, since short of interviewing the entire national sample (for example, some 200 million Brazilians), the number of samples that could be drawn is infinite. In

**Table 3. Design effects, 2016/17 AmericasBarometer Survey**



**Table 3. Design effects, 2016/17 AmericasBarometer Survey (cont.)**

Country	corvic				PSA5			
	2016/2017			2014 Round	2016/2017			2014 Round
	Average	Std. Error	DEFT	DEFT	Average	Std. Error	DEFT	DEFT
Mexico	29.76	1.26	1.09	1.24	45.51	0.82	1.34	1.60
Guatemala	25.13	1.49	1.35	1.18	53.57	0.55	1.01	1.45
El Salvador	9.76	0.84	1.11	1.05	51.20	0.69	1.17	1.05
Honduras	27.54	1.15	1.02	1.44	47.95	0.77	1.26	1.38
Nicaragua	20.14	1.03	1.02	1.07	62.84	0.64	1.11	1.29
Costa Rica	9.18	0.78	1.05	1.41	62.23	0.64	1.14	1.28
Panama	13.55	0.90	1.02	1.83	49.87	0.68	1.16	1.65
Colombia	17.40	1.05	1.09	1.42	47.57	0.68	1.20	1.44
Ecuador	27.78	1.24	1.09	1.62	55.30	0.65	1.18	1.68
Bolivia	40.37	1.25	1.05	2.02	49.69	0.81	1.49	2.26
Peru	29.57	1.25	1.40	1.33	43.93	0.53	1.34	1.76
Paraguay	30.96	1.46	1.24	1.29	42.38	0.86	1.48	1.43
Chile	7.27	0.67	1.04	1.58	42.66	0.55	1.00	1.89
Uruguay	6.27	0.65	1.05	1.04	56.65	0.64	1.06	1.19
Brazil	11.23	0.82	1.01	1.55	34.05	0.69	1.21	1.74
Venezuela	28.57	1.24	1.08	1.70	39.92	0.88	1.25	1.72
Argentina	16.12	0.98	1.04	1.51	49.95	0.63	1.11	1.54
Dominican Rep.	23.15	1.30	1.20	1.08	48.96	0.78	1.22	1.25
Haiti	35.83	1.16	1.14	1.47	37.71	0.75	1.44	2.13
Jamaica	9.97	0.84	1.09	1.09	48.37	0.63	1.01	1.13
Guyana	13.26	1.06	1.22	1.28	65.46	0.70	1.20	1.72
Grenada	3.69	0.58	0.97	-	58.16	0.95	1.50	-
St. Lucia	5.99	0.85	1.14	-	44.90	0.75	1.05	-
Dominica	8.86	1.13	1.27	-	43.93	1.40	1.66	-
Antigua and Barbuda	6.59	0.84	1.06	-	56.31	0.99	1.45	-
St. Vincent and the Grenadines	4.72	0.78	1.18	-	54.97	1.13	1.44	-
St. Kitts and Nevis	5.26	0.80	1.13	-	57.39	1.06	1.40	-
United States	-	-	-	1.54	53.68	0.76	1.31	1.40
Canada	-	-	-	1.05	62.27	0.58	1.08	1.07

