

Methodology

The American Trends Panel survey methodology

The American Trends Panel (ATP), created by Pew Research Center, is a nationally representative panel of randomly selected U.S. adults. Panelists participate via self-administered web surveys. Panelists who do not have internet access at home are provided with a tablet and wireless internet connection. The panel is being managed by Ipsos.

Data in this analysis is drawn from the panel wave conducted Oct. 16 to Oct. 28, 2019. A total of 4,860 panelists responded out of 5,887 who were sampled, for a response rate of 82.6%. This includes 4,458 from the ATP

and an oversample of 1,429 respondents sampled from the Ipsos KnowledgePanel that previously indicated that they identify as lesbian, gay, or bisexual (LGB). This does not include three panelists who were removed from the data due to extremely high rates of refusal or straightlining. The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 5.3%. The break-off rate among panelists who logged onto the survey and completed at least one item is 1.2%.

American Trends Panel recruitment surveys

Recruitment dates	Mode	Invited	Joined	Active panelists remaining
Jan. 23 to March 16, 2014	Landline/ cell RDD	9,809	5,338	2,318
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	1,337
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	685
Aug. 8 to Oct. 31, 2018	ABS/web	9,396	8,778	6,424
	Total	29,114	18,720	10,764

Note: Approximately once per year, panelists who have not participated in multiple consecutive waves or who did not complete an annual profiling survey are removed from the panel. Panelists also become inactive if they ask to be removed from the panel.

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For this report in particular, the analyses are limited to the 3,998 ATP respondents because a comparable measure of religious affiliation was not available for the 862 KnowledgePanel respondents. The margin of sampling error for the 3,998 ATP respondents is plus or minus 2.1 percentage points.

The subsample from the ATP was selected by grouping panelists into eight strata so demographic groups that are underrepresented in the panel had a higher probability of selection than overrepresented groups:

- Stratum A consists of panelists who identify as LGB, use online dating sites or apps, and are single and looking for a relationship. They were sampled at a rate of 100%.
- Stratum B consists of panelists who identify as LGB, do NOT use online dating sites or apps, and are single and looking for a relationship. They were sampled at a rate of 100%.
- Stratum C consists of panelists that are who do NOT identify as LGB, use online dating sites or apps, and are single and looking for a relationship. They were sampled at a rate of 41.5%.
- Stratum D consists of panelists who are non-internet users. They were sampled at a rate of 87.5%.
- Stratum E consists of panelists with a high school education or less. They were sampled at a rate of 69.9%.
- Stratum F consists of panelists that are Hispanic, unregistered to vote, or non-volunteers. They were sampled at a rate of 29.2%.
- Stratum G consists of panelists that are Black or 18 to 34 years old. They were sampled at a rate of 15%.
- Stratum H consists of the remaining panelists. They were sampled at a rate of 11.1%.

The ATP was created in 2014, with the first cohort of panelists invited to join the panel at the end of a large, national, landline and cellphone random-digit-dial survey that was conducted in both English and Spanish. Two additional recruitments were conducted using the same method in 2015 and 2017, respectively. Across these three surveys, a total of 19,718 adults were invited to join the ATP, of which 9,942 agreed to participate.

In August 2018, the ATP switched from telephone to address-based recruitment. Invitations were sent to a random, address-based sample (ABS) of households selected from the U.S. Postal Service's Delivery Sequence File. In each household, the adult with the next birthday was asked to go online to complete a survey, at the end of which they were invited to join the panel. For a random half-sample of invitations, households without internet access were instructed to return a postcard. These households were contacted by telephone and sent a tablet if they agreed to participate. A total of 9,396 were invited to join the panel, and 8,778 agreed to join the panel and completed an initial profile survey. Of the 18,720 individuals who have ever joined the ATP, 10,764 remained active panelists and continued to receive survey invitations at the time this survey was conducted.

The U.S. Postal Service’s Delivery Sequence File has been estimated to cover as much as 98% of the population, although some studies suggest that the coverage could be in the low 90% range.¹

Weighting

The ATP data was weighted in a multistep process that begins with a base weight incorporating the respondents’ original survey selection probability and the fact that in 2014 and 2017 some respondents were subsampled for invitation to the panel. The next step in the weighting uses an iterative technique that aligns the sample to population benchmarks on the dimensions listed in the accompanying table. For this wave, an additional weighting parameter was added to adjust for oversampling LGB-identifying respondents.

Sampling errors and test of statistical significance take into account the effect of weighting. Interviews are conducted in both English and Spanish, but the American Trends Panel’s Hispanic sample is predominantly U.S. born and English speaking.

In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

Weighting dimensions

Variable	Benchmark source
Gender	2017 American Community Survey
Age	
Education	
Race/Hispanic origin	2018 CPS March Supplement
Hispanic nativity	
Home internet access	2017 CPS Volunteering & Civic Life Supplement
Region x Metropolitan status	
Volunteerism	2016 CPS Voting and Registration Supplement
Voter registration	
Party affiliation	Average of the three most recent Pew Research Center telephone surveys.
LGB Orientation	ATP Wave 50

Note: Estimates from the ACS are based on non-institutionalized adults. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total US adult population.

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¹ AAPOR Task Force on Address-based Sampling. 2016. “[AAPOR Report: Address-based Sampling.](#)”

The following table shows the unweighted sample size and the error attributable to sampling that would be expected at the 95% level of confidence:

Group	Unweighted sample size	Plus or minus ...
Total sample	3,998	2.1 percentage points
Christian	2,389	2.7 percentage points
Protestant	1,613	3.3 percentage points
<i>Evangelical</i>	778	4.6 <i>percentage points</i>
<i>Mainline</i>	591	5.5 <i>percentage points</i>
<i>Historically Black</i>	244	8.5 <i>percentage points</i>
Catholic	675	5.1 percentage points
Unaffiliated	1,322	3.8 percentage points
Atheist	267	8.6 percentage points
Agnostic	316	8.0 percentage points
Nothing in particular	739	4.9 percentage points
<i>Attend religious services ...</i>		
Monthly or more often	1,275	3.7 percentage points
A few times a year or less	2,705	2.6 percentage points

Sample sizes and sampling errors for subgroups are available upon request.

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