

## 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. Interviews are conducted in both English and Spanish. The panel is being managed by Ipsos.

Data in this report is drawn from the panel wave conducted Aug. 3 to Aug. 16, 2020. A total of 13,200 panelists responded

out of 15,387 who were sampled, for a response rate of 86%. This does not include four 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 5.4%. The break-off rate among panelists who logged on to the survey and completed at least one item is 1%. The margin of sampling error for the full sample of 13,200 respondents is plus or minus 1.4 percentage points.

#### 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	2,303
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	1,335
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	684
Aug. 8 to Oct. 31, 2018	ABS/web	9,396	8,778	6,403
Aug. 19 to Nov. 30, 2019	ABS/web	5,900	4,720	3,027
June 1 to July 19, 2020	ABS/web	1,865	1,636	1,635
	<b>Total</b>	<b>36,879</b>	<b>25,076</b>	<b>15,387</b>

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.

PEW RESEARCH CENTER

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 whom 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 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. The same recruitment procedure was carried out on Aug. 19, 2019, from which a total of 5,900 were invited to join the panel; 4,720 agreed to join the panel and completed an initial profile survey. Another recruitment using the same procedure was carried out on June 1, 2020, from which a total of 1,865 were invited to join the panel; 1,636 agreed to join the panel and completed an initial profile survey. Of the 25,076 individuals who have ever joined the ATP, 15,387 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.<sup>1</sup> The American Trends Panel never uses breakout routers or chains that direct respondents to additional surveys.

---

<sup>1</sup> AAPOR Task Force on Address-based Sampling. 2016. "[AAPOR Report: Address-based Sampling.](#)"

## Weighting

The ATP data was weighted in a multistep process that accounts for multiple stages of sampling and nonresponse that occur at different points in the survey process. First, each panelist begins with a base weight that reflects their probability of selection for their initial recruitment survey (and the probability of being invited to participate in the panel in cases where only a subsample of respondents were invited). The base weights for panelists recruited in different years are scaled to be proportionate to the effective sample size for all active panelists in their cohort. To correct for nonresponse to the initial recruitment surveys and gradual panel attrition, the base weights for all active panelists are calibrated to align with the population benchmarks identified in the accompanying table to create a full-panel weight.

For ATP waves in which only a subsample of panelists are invited to participate, a wave-specific base weight is created by adjusting the full-panel weights for subsampled panelists to account for any differential probabilities of selection for the particular panel wave. For waves in which all active panelists are invited to participate, the wave-specific base weight is identical to the full-panel weight.

In the final weighting step, the wave-specific base weights for panelists who completed the survey are again calibrated to match the population benchmarks specified above. These weights are trimmed (typically at about the 1st and 99th percentiles) to reduce the loss in precision stemming from variance in the weights. Sampling errors and test of statistical significance take into account the effect of weighting.

---

## Weighting dimensions

Variable	Benchmark source
Age x Gender	2018 American Community Survey
Education x Gender	
Education x Age	
Race/Ethnicity x Education	
Born inside vs. outside the U.S. among Hispanics and Asian Americans	
Years lived in the U.S.	
Census region x Metro/Non-metro	2019 CPS March Supplement
Volunteerism	2017 CPS Volunteering & Civic Life Supplement
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation	Average of the three most recent Pew Research Center telephone surveys
Frequency of internet use	ATP 2020 ABS recruitment survey
Religious affiliation	

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 U.S. adult population. The ATP 2020 ABS recruitment survey featured 1,862 online completions and 2,247 mail survey completions.

PEW RESEARCH CENTER

---

The following table shows the unweighted sample sizes and the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey:

Group	Unweighted sample size	Plus or minus ...
Total sample	13,200	1.4 percentage points

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

### Defining income tiers

To create upper-, middle- and lower-income tiers, respondents' 2018 family incomes were adjusted for differences in purchasing power by geographic region and for household size. "Middle-income" adults live in families with annual incomes that are two-thirds to double the median family income in the sample (after incomes have been adjusted for the local cost of living and for household size). The middle-income range in this ATP sample is about \$39,800 to \$119,400 annually for a three-person family. Lower-income families have incomes less than roughly \$39,800, and upper-income families have incomes greater than roughly \$119,400. All figures are expressed in 2019 dollars.

Based on these adjustments, among respondents who provided their income and household size, 31% are lower income, 45% are middle income and 18% fall into the upper-income tier. An additional 6% either didn't offer a response to the income question or the household size question.

### A note about the Asian sample

This survey includes a total sample size of 378 Asian Americans. The sample includes English-speaking Asian Americans only and, therefore, may not be representative of the overall Asian American population (73% of our weighted Asian American sample was born in another country, compared with 77% of the Asian American adult population overall). Despite this limitation, it is important to report the views of Asian Americans on the topics in this study. As always, Asian Americans' responses are incorporated into the general population figures throughout this report. Because of the relatively small sample size and a reduction in precision due to weighting, we are not able to analyze Asian American respondents by demographic categories, such as gender, age or education. For more, see "[Polling methods are changing, but reporting the views of Asian Americans remains a challenge.](#)"

© Pew Research Center, 2020