

## Methodology

### The American Trends Panel survey methodology

#### Overview

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 Feb. 16 to Feb. 21, 2021. A total of 10,121 panelists responded out of 11,605 who were sampled, for a response rate of 87%. 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 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 10,121 respondents is plus or minus 1.6 percentage points.

#### Panel recruitment

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 (50%) 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

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#### 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	2,184
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	1,243
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	621
Aug. 8 to Oct. 31, 2018	ABS/web	9,396	8,778	5,902
Aug. 19 to Nov. 30, 2019	ABS/web	5,900	4,720	2,330
June 1 to July 19, 2020	ABS/web	1,865	1,636	1,272
	<b>Total</b>	<b>36,879</b>	<b>25,076</b>	<b>13,552</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.

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from the U.S. Postal Service's Delivery Sequence File. Two additional recruitments were conducted using the same method in 2019 and 2020, respectively. Across these three address-based recruitments, a total of 17,161 adults were invited to join the ATP, of whom 15,134 (88%) agreed to join the panel and completed an initial profile survey. 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. Of the 25,076 individuals who have ever joined the ATP, 13,552 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.

### **Sample design**

The overall target population for this survey was non-institutionalized persons ages 18 and older, living in the U.S., including Alaska and Hawaii.

This study featured a stratified random sample from the ATP. The sample was allocated according to the following strata, in order: tablet households, U.S.-born Hispanics, foreign-born Hispanics, high school education or less, foreign-born Asians, not registered to vote, people ages 18 to 34, uses internet weekly or less, non-Hispanic Black adults, nonvolunteers and all other categories not already falling into any of the above.

### **Questionnaire development and testing**

The questionnaire was developed by Pew Research Center in consultation with Ipsos. The web program was rigorously tested on both PC and mobile devices by the Ipsos project management team and Pew Research Center researchers. The Ipsos project management team also populated test data which was analyzed in SPSS to ensure the logic and randomizations were working as intended before launching the survey.

### **Incentives**

All respondents were offered a post-paid incentive for their participation. Respondents could choose to receive the post-paid incentive in the form of a check or a gift code to Amazon.com or could choose to decline the incentive. Incentive amounts ranged from \$5 to \$15 depending on whether the respondent belongs to a part of the population that is harder or easier to reach.

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

Differential incentive amounts were designed to increase panel survey participation among groups that traditionally have low survey response propensities.

### Data collection protocol

The data collection field period for this survey was Feb. 16 to Feb. 21, 2021. Postcard notifications were mailed to all ATP panelists with a known residential address on Feb. 16, 2021.

On Feb. 16 and Feb. 17, invitations were sent out in two separate launches: Soft Launch and Full Launch. Sixty panelists were included in the soft launch, which began with an initial invitation sent on Feb. 16, 2021. The ATP panelists chosen for the initial soft launch were known responders who had completed previous ATP surveys within one day of receiving their invitation. All remaining English- and Spanish-speaking panelists were included in the full launch and were sent an invitation on Feb. 17, 2021.

All panelists with an email address received an email invitation and up to two email reminders if they did not respond to the survey. All ATP panelists that consented to SMS messages received an SMS invitation and one SMS reminder.

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#### Invitation and reminder dates

	Soft Launch	Full Launch
Initial invitation	Feb. 16, 2021	Feb. 17, 2021
First reminder	Feb. 19, 2021	Feb. 19, 2021
Final reminder	Feb. 21, 2021	Feb. 21, 2021

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### Data quality checks

To ensure high-quality data, the Center's researchers performed data quality checks to identify any respondents showing clear patterns of satisficing. This includes checking for very high rates of leaving questions blank, as well as always selecting the first or last answer presented. As a result of this checking, three ATP respondents were removed from the survey dataset prior to weighting and analysis.

### 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.

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## Weighting dimensions

Variable	Benchmark source
Age x Gender	2019 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	2016 CPS Voting and Registration Supplement
Party affiliation	2020 National Public Opinion Reference Survey
Frequency of internet use	
Religious affiliation	

Note: Estimates from the ACS are based on non-institutionalized adults. The 2016 CPS was used for voter registration targets for this wave in order to obtain voter registration numbers from a presidential election year. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total U.S. adult population. The 2020 National Public Opinion Reference Survey featured 1,862 online completions and 2,247 mail survey completions.

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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.

<b>Group</b>	<b>Unweighted sample size</b>	<b>Plus or minus ...</b>
Total sample	10,121	1.6 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.

### Dispositions and response rates

<b>Final dispositions</b>	<b>AAPOR code</b>	<b>Total</b>
Completed interview	1.1	10,121
Logged onto survey; broke-off	2.12	74
Logged onto survey; did not complete any items	2.1121	61
Never logged on (implicit refusal)	2.11	1,342
Survey completed after close of the field period	2.27	4
Completed interview but was removed for data quality		3
Screened out		N/A
<b>Total panelists in the survey</b>		<b>11,605</b>
Completed interviews	I	10,121
Partial interviews	P	0
Refusals	R	1,480
Non-contact	NC	4
Other	O	0
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
<b>Total</b>		<b>11,605</b>
AAPOR RR1 = $I / (I+P+R+NC+O+UH+UO)$		87%

Cumulative response rate	Total
Weighted response rate to recruitment surveys	11%
% of recruitment survey respondents who agreed to join the panel, among those invited	73%
% of those agreeing to join who were active panelists at start of Wave 83	57%
Response rate to Wave 83 survey	87%
<b>Cumulative response rate</b>	<b>4%</b>

### Adjusting income and defining income tiers

To create upper-, middle- and lower-income tiers, respondents' 2019 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 panel (after incomes have been adjusted for the local cost of living and for household size). The middle-income range for the American Trends Panel is about \$38,900 to \$116,800 annually for an average family of three. Lower-income families have incomes less than roughly \$38,900, and upper-income families have incomes greater than roughly \$116,800 (all figures expressed in 2019 dollars).

Based on these adjustments, among respondents who provided their income and household size, 32% are lower income, 45% are middle income and 19% fall into the upper-income tier. An additional 4% either didn't offer a response to the income question or the household size question.

For more information about how the income tiers were determined, please see [here](#).

### A note about the Asian sample

This survey includes a total sample size of 329 Asian Americans. The sample includes English-speaking Asian Americans only and, therefore, may not be representative of the overall Asian American population (72% 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. Asian Americans are shown as a separate group when the question was asked of the full sample. Because of the relatively small sample size and a reduction in precision due to weighting, results are not shown separately for Asian Americans for questions that were only asked of a random half of respondents (Form 1/Form 2). We are also 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](#)."

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