## 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 report is drawn from the panel wave conducted Jan. 6 to Jan. 19, 2020. A total of 12,638 panelists responded out of 15,463 who were sampled, for a response rate of $82 \%$. This does not include nine panelists who were removed from the data due to extremely high rates of refusal or straight-lining. The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is $5.3 \%$. 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 12,638 respondents is plus or minus 1.3 percentage points.

Some analysis in this report relies on survey data drawn from a panel wave conducted Oct. 19 to Nov. 11, 2019. Information about whether respondents use Twitter captured in the October and November surveys were combined with responses from the current wave.

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. The same recruitment procedure was carried out on Aug. 19, 2019, from which a total of 5,900 were invited to join the panel and 4,720 agreed to join the panel and completed an initial profile survey. Of the 23,440 individuals who have ever joined the ATP,

15,463 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 selection probability. 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.

Sampling errors and test of statistical significance take into account the effect of weighting. Interviews are conducted in both English and Spanish.

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.

Because this analysis includes respondents who participated in the October and November 2019 and January 2020 surveys, a set of weights was created using the same procedure to ensure that the profile of the combined sample was consistent with the demographic and political distribution in the full sample.

## Twitter use survey

The finding that 29\% of Democrats and Democratic-leaning Independents use Twitter is based on a separate telephone survey conducted Jan. 8 to Feb. 7, 2019, among a national

| Weighting dimensions |  |
| :--- | :--- |
| Variable | Benchmark <br> source |
| Gender | 2018 American <br> Community <br> Survey |
| Age | Education |
| Race/Hispanic <br> origin <br> Country of birth <br> among Hispanics <br> Home internet <br> access | Region x <br> Metropolitan status <br> Volunteerism |
| 2019 CPS March <br> 2017 CPS |  |
|  |  |
| Civic Life |  |
| Supplement |  |$|$

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.

PEW RESEARCH CENTER sample of 1,502 adults 18 years of age or older who live in all 50
U.S. states and the District of Columbia. That survey found that the platform is used by $22 \%$ of all U.S. adults and $16 \%$ of Republicans and Republican leaners.

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## Twitter following data

The analysis of Twitter-account-following behavior is based on a subset of respondents who volunteered their Twitter profile names in the October and November 2019 American Trends Panel survey. Out of 12,043 respondents, 2,561 reported using Twitter. Those who reported using the platform were presented with this prompt: "We would like to better understand the role of Twitter in society; for example, how often people use Twitter and what they tweet about. To help us with this research, we hope you will share your Twitter handle with us. Your handle is the username you have selected for your Twitter account (like @yourhandle). We will treat your handle with the same care we take with all of your survey responses - it will be used only for research purposes, and we will never share any of your tweets or any profile data that can be linked back to you. We expect that this research will be concluded within 18 months."

In total, 1,518 of these 2,561 Twitter users provided a handle. Researchers manually reviewed this set of handles and removed any not meeting the following criteria:

1. The handle is not an obvious refusal or invalid answer (such as "no" or "none")
2. The profile is accessible (meaning it exists and has not been suspended)
3. The profile appears to belong to someone located in the U.S.
4. The profile appears to correspond with the age and gender reported by the respondent (and, if age and gender was not apparent, state of residence)
5. The profile is not an institutional or organizational account

A total of 1,346 handles from this initial collection appeared valid according to the above criteria. As of Jan. 21, 2020, 88\% of those accounts ( $\mathrm{n}=1,181$ ) were public and did not produce an error when accessed.

This analysis of candidate-following behavior is based upon the 811 of these accounts belonging to individuals who identify as Democrats or lean toward the Democratic Party. The list of accounts each individual followed was collected periodically from Dec. 18, 2019, to Jan. 21, 2020. As a result, individuals are considered to be following a particular candidate if they followed that candidate's account at any point during that time window.

Some of the political figures analyzed in this post have multiple Twitter accounts (official accounts, personal accounts and campaign accounts, for example). The specific handles used to estimate the share of Democrats who follow each figure were: @BarackObama, @HillaryClinton, @BernieSanders, @ewarren, @realDonaldTrump, @PeteButtigieg, @JoeBiden, @AndrewYang, @amyklobuchar, and @MikeBloomberg.


[^0]:    ${ }^{1}$ AAPOR Task Force on Address-based Sampling. 2016. "AAPOR Report: Address-based Sampling."

