# Pew Research Center's American Trends Panel
# Wave 56
# Methodology Report

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Pew Research Center

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## Summary
The American Trends Panel (ATP) is a national, probability-based online panel of adults living in households in the United States. On behalf of the Pew Research Center, Ipsos Public Affairs ("Ipsos") conducted the 56th wave of the panel from October 16, 2019 to October 28, 2019. In total, 4,860 ATP and Knowledge Panel (KP) members (both English- and Spanish-language survey-takers) completed the Wave 56 survey. Survey weights were provided for the total responding sample. The margin of sampling error for weighted estimates based on the full sample is ± 2.09 percentage points.

## Sample Definition
The overall target population for Wave 56 was non-institutionalized persons age 18 and over, living in the US, including Alaska and Hawaii. The sample consisted of 4,458 ATP members and 1,429 KP members.

The ATP subsample[1] was selected by grouping panelists into five strata:
1. LGB/Single and looking-Online dater. There were 851 total panelists and they are sampled at a rate of 100%.
2. LGB/Single and looking-Not online dater.  There were 519 total panelists and they are sampled at a rate of 100%.
3. Not LGB/Single and looking-Online dater.  There were 1,890 total panelists and they are sampled at a rate of 41.5%. 785 panelists were selected for Wave 56.
4. Non-internet panelists. There were 393 total panelists in this stratum and they are sampled at a rate of 87.5%. 344 panelists were selected for Wave 56.
5. HS or less panelists. There were 1,098 total panelists in this stratum and they are sampled at a rate of 69.9%. 768 panelists were selected for Wave 56.
6. Hispanic, Unregistered or Non-volunteers. There were 2,773 total panelists in this stratum and they are sampled at a rate of 29.2%. 811 panelists were selected for Wave 56.
7. Black or 18-34 panelists. There were 525 total panelists and they are sampled at a rate of 15.0%. 79 panelists were selected for Wave 56.
8. Other panelists. There were 2,718 total panelists and they are sampled at a rate of 11.1%. 301 panelists were selected for Wave 56.

All sample was pre-split into two forms (FORM_W56) in order to better control the demographics within each form.


## KnowledgePanel Methodology Information
KnowledgePanel is the largest online panel that relies on probability-based sampling techniques for recruitment; hence, it is the largest national sampling frame from which fully representative samples can be generated to produce statistically valid inferences for study populations. KP provides samples with the highest level of representativeness available in online research for

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[1] Three panelists became inactive prior to data collection.

measurement of public opinions, attitudes, and behaviors. The panel was first developed in 1999 by Knowledge Networks. Panel members are randomly selected so that survey results can properly represent the U.S. population with a measurable level of accuracy, features that are not obtainable from nonprobability panels (for comparisons of results from probability versus nonprobability methods, see Yeager et al., 2011[2]).

KnowledgePanel's recruitment process was originally based exclusively on a national RDD sampling methodology. In 2009, in light of the growing proportion of cellphone-only households, Ipsos migrated to an ABS recruitment methodology via the U.S. Postal Service's Delivery Sequence File (DSF). ABS not only improves population coverage, but also provides a more effective means for recruiting hard-to-reach individuals, such as young adults and minorities. Households without Internet connection are provided with a Web-enabled device and free Internet service.

After initially accepting the invitation to join the panel, participants are asked to complete a short demographic survey (the initial *Core Profile Survey*); answers to this survey allow efficient panel sampling and weighting for future surveys. Upon completing the Core Profile Survey, participants become active panel members. All panel members are provided privacy and confidentiality protections.

## Questionnaire Development and Testing
The questionnaire was developed by the 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. The Pew Research Center has a copy of the final instruments in English and Spanish.

## Recruitment and Administration of the ATP
Prior to Wave 56, ATP panelists were recruited from three large (n=10,013, n=6,004 and n=3,905), national, overlapping, dual-frame landline and cellphone random-digit-dial (RDD) surveys and one (n=9,396) national address-based sample (ABS) survey conducted for the Pew Research Center. At the end of each recruitment survey, respondents were invited to join the panel. The first recruitment was conducted from January 23 to March 16, 2014, the second

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[2] Yeager, D., Krosnick, J., Chang, L., Javitz, H., Levendusky, M., Simper, A. and R. Wang (2011). "Comparing the Accuracy of RDD Telephone Surveys and Internet Surveys Conducted With Probability and Non-Probability Samples." Public Opinion Quarterly, Winter 2011.

recruitment was conducted from August 27 to October 4, 2015, the third recruitment was conducted from April 25 to June 4, 2017, and the fourth recruitment was conducted from August 8, 2018 to October 31, 2018, all in English and Spanish. Sample for the RDD surveys was obtained from SSI and sample for the ABS survey was obtained by MSG. The RDD recruitment surveys were conducted by Abt SRBI.[3]

The first 20 waves of the ATP featured a simultaneous mixed-mode design, in which panelists who used the Internet and provided an email address participated via self-administered web survey, and adults who did not use the Internet (or did but did not provide an email address) participated via a mail survey (Waves 3-4 and 6-20) or computer-assisted telephone interviewing (CATI, Waves 1 and 5 only). Wave 18 was the first wave where a subset of the non-Internet panelists was converted to web mode. The conversion process involved calling all active mail mode respondents (n=616) and asking them to report their Internet and device status and then asking them to convert to web. Those who already had the means for taking web surveys were simply asked to convert. Those without the means for taking web surveys (no device and/or Internet access) were offered an Internet-connected tablet computer at no cost to the panelist. Tablets were shipped to the panelists who accepted, and they were given a follow-up call to ensure they understood how to use the tablet to access the ATP surveys through a pre-installed Mobile Panel Application.

Wave 21 was the first wave conducted only in web mode. However, the conversion effort was ongoing through Wave 26. By Wave 26, 238 of 616 (39%) mail panelists had converted to web. Of these, 197 received tablets and 41 made the mode switch using their own devices.

## Data Collection Protocol

The data collection field period for Wave 56 was October 16, 2019 to October 28, 2019. Postcard notifications were mailed to all ATP panelists with a known residential address on October 18, 2019.

On October 16 and October 18 invitations to Wave 56 were sent out in two separate launches: Soft Launch and Full Launch. One-hundred ATP panelists were included in the soft launch, which began with an initial invitation sent on the afternoon of October 16, 2019. The panelists chosen for the initial soft launch were known responders who had completed previous ATP

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[3] Visit http://www.pewresearch.org/methodology/u-s-survey-research/american-trends-panel/ for more information on American Trends Panel recruitment and methodology.

surveys within one day of receiving their invitation. All remaining panelists were included in the full launch and were sent an invitation on October 18, 2019.

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

**Invitation and Reminder Dates for Wave 56 Panelists**

|  | Soft Launch | Full Launch |
|---|---|---|
| Advance Post Card | October 18, 2019 | October 18, 2019 |
| Initial invitation | October 16, 2019 | October 18, 2019 |
| 1st reminder | October 21, 2019 | October 21, 2019 |
| 2nd reminder | October 23, 2019 | October 23, 2019 |
| 3rd reminder/Final reminder | October 25, 2019 | October 25, 2019 |

ATP panelists who completed their survey in Spanish and all converted panelists who had received a tablet were offered a $20 post-paid incentive for completing the Wave 56 survey. Panelists who were age 18-29, African American, with high school education or less, were not registered to vote, or reported being Hispanic but taking the survey in English in the RDD recruitment survey were offered a $10 post-paid incentive for completing the Wave 56 survey. All other panelists who completed the survey were offered a $5 post-paid incentive. 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. The differential incentive amounts were designed to increase panel survey participation among groups that traditionally have low survey response propensities.

## Data Quality Checks
As part of the effort to ensure the highest quality data, the Pew Research Center researchers performed data quality checks to identify any respondents showing clear patterns of satisficing. Pew Research Center removed three ATP respondents from the Wave 56 data, none of those panelists were withdrawn from the panel completely.

## Weighting
Survey weights are needed to support reliable inference from the panel to the target population of US adults. The final survey dataset contains a total sample weight variable (WEIGHT_W56). The design of this weight is described below.

Start with the base weights of ATP sample, respondents are weighted to represent the ages 18+ population with geodemographic distributions balanced separately within the two forms with respect to the following characteristics:

- Gender (Male, Female) x Age (18-24, 25-34, 35-44, 45-54, 55-64, 65+)
- Gender (Male, Female) x Education (HS grad or less, Some college, College grad +)
- Age (18-34, 35-54, 55+) x Education (HS grad or less, Some college, College grad +)
- Census Region (Northeast, Midwest, South, West) by Metropolitan Status (Metro, Non-metro)
- Race/Ethnicity (White Non-Hisp, Black Non-Hisp, Hispanic, Other/Multi-race Non-Hisp) by Education (HS grad or less, Some college, College grad +) and education is not broken out (but collapse) within Other/Multi-race Non-Hisp]
- Accesses Internet by paying a cell phone company or Internet service provider (Yes, No)
- Party ID (Republican, Democrat, Independent/Other/DK/REF)
- Volunteerism (Volunteered, Did not Volunteer)
- Registered Voter (Yes, No)
- Race/Ethnicity with Hispanic Nativity ((White Non-Hisp, Black Non-Hisp, US Born Hispanic, Non-US Born Hispanic, Other/Multi-race Non-Hisp)
- Sexual Orientation (Lesbian, Gay or Bisexual, Not Lesbian, Gay or Bisexual)

The weighting benchmarks are provided by Pew Research Center. Weights are trimmed on the overall level (not separately by form) and scaled to sum to the un-weighted sample size of total respondents.

### *Weights Definition:*
WEIGHT_ W56:  Wave 56 ATP cases (trimmed weights)

### *Trimming:*
(1.52%, 98.52%)

### *Approximate Design Effect:*

|         | WEIGHT_W56 |
|---------|------------|
| Overall | 2.21       |

### *Base Weight*
A base weight was computed for all ATP members. The base weight adjusted for factors affecting the probability that the individual was selected for the panel. This probability came from the survey in which the respondent was recruited.

For panelists recruited via RDD, the process of creating the ATP base weights starts with base weight computed for each telephone recruitment survey. Those telephone recruitment survey base weights accounted for (i) the overlap of landline and cell frame sampling frames and (ii) the number of adult in the household for landline cases. The base weights for the Typology Survey were then adjusted to account for the initial subsampling of non-internet users at a rate of 25% up until February 5, 2014. The base weights for the 2017 Panel Refresh Survey were also adjusted to account for the subsampling of non-Hispanic white internet users with more than a high school education at a rate of 50%. Then, separately for each of the three RDD recruitments, those base weight values were re-scaled to sum to the effective sample size of currently active panelists in the cohort. Those re-scaled weight values serve as the ATP base weights for the panelists recruited via RDD.

For panelists recruited via ABS, the process starts with the base weight from the recruitment survey, which accounted for the probability of selection of the address from the U.S. Postal Service Computerized Delivery Sequence File frame, as well as the number of adults living in the household. Those weight values were then scaled to sum to the effective sample size of currently active panelists from the ABS recruitment. Those scaled weight values serve as the ATP base weights for the panelists via ABS. Finally, the combined base weight is then scaled to the nominal sample size of the ATP.

### *Calibration to Target Population Controls*
In the final stage of weighting, the ATP base weights for the panelists responding to a particular panel survey are calibrated to population benchmarks using raking, or iterative proportional fitting. This adjustment is designed to reduce the risk of nonresponse bias stemming from nonresponse at the various stages of the panel design. The raking dimensions and the source for the population parameter estimates are reported in the table below. All raking targets are based on the non-institutionalized U.S. adult (age 18+) population.

**Raking Dimensions and Source for Population Parameter Estimates**

| Raking Dimension^ | Source |
| --- | --- |
| Gender(2) x Age(6) | 2017 American Community Survey |
| Gender(2) x Education (3) | 2017 American Community Survey |
| Age(3) x Education(3) | 2017 American Community Survey |

| | |
|---|---|
| Education(3) x Race/Ethnicity(4)* | 2017 American Community Survey |
| Census Region(4) by Metro Status(2) | 2018 Current Population Survey ASEC March Supplement |
| Internet Usage(2) | 2017 American Community Survey |
| Party Affiliation(3) | Average from the three most recent monthly surveys conducted for the Pew Research Center for the People & the Press |
| Volunteerism(2) | CPS Volunteering and Civic Life Supplement 2017 |
| Registration(2) | 2016 Current Population Survey Registration Supplement |
| Hispanic Nativity(4) | 2017 American Community Survey |
| Sexual Orientation(2) | ATP Wave 50 Survey |

^ The numbers of categories (prior to any collapsing from small cell size) are shown in parentheses.
*note that Education is collapsed for "Other/Non Hispanic"

The raking for internet usage was included in the algorithm so that the panel survey estimates reflect the target population with respect to the proportion of people who use the internet and the proportion who do not. In Wave 56, all ATP interviews were completed via self-administered web survey. Therefore, there was a concern that internet users could be over-represented in the survey estimates if this dimension was not controlled for in the raking. To correct for this potential over-representation, panelists who reported at the time of the recruitment survey that they did not use the Internet were used to represent non-Internet users in the raking. Other dimensions that are not typically used in weighting protocols for general population household surveys in the US are volunteering and voter registration. These variables were included in the calibration to adjust for some potential bias due to the over-representation of more politically- and civically-engaged adults of the panel.

## Design Effect and Margin of Error

Weighting and survey design features that depart from simple random sampling tend to result in an increase in the variance of survey estimates. This increase, known as the design effect or *deff*, should be incorporated into the margin of error, standard errors, and tests of statistical significance. The overall design effect for a survey is commonly approximated as 1 plus the squared coefficient of variation of the weights. For this survey, the margin of error (half-width of the 95% confidence interval) incorporating the design effect for full sample estimates at 50% is ± 2.09 percentage points. Estimates based on subgroups will have larger margins of error. It is important to remember that random sampling error is only one possible source of error in a

survey estimate. Other sources, such as question wording and reporting inaccuracy, may contribute additional error. A summary of the weights and their associated design effect is reported in the table below.

**Design Effect and Effective Sample Size**

| Weight Variable | Completed Interviews | Approximate Design Effect | Effective Sample Size | Margin of Error (95% confidence level) |
|---|---|---|---|---|
| WEIGHT_W56 | 4,860 | 2.21 | 2,198 | ± 2.09 |

## Dispositions

The survey cooperation rate for Wave 56 itself was 81.7%. The final table reports the cumulative response rate for Wave 56 when all stages of recruitment or response are taken into account.

| Final Dispositions for the Wave 56 Web Survey | | | | |
|---|---|---|---|---|
| **Final Disposition** | **AAPOR Code[1]** | **ATP** | **KP** | **Total** |
| Completed interview | 1.1 | 3,998 | 862 | 4,860 |
| Logged onto survey; broke-off | 2.12 | 43 | 18 | 61 |
| Logged onto survey; did not complete any items | 2.1121 | 12 | 12 | 24 |
| Never logged on (implicit refusal) | 2.11 | 402 | 428 | 830 |
| Completed interview but was removed for data quality | | 3 | 109* | 112 |
| **Total Panelists in the Wave 56 Web Survey** | | **4,458** | **1,429** | **5,887** |
| Completed interviews | I | 3,998 | 862 | 4,860 |
| Partial interviews | P | | | |
| Refusals | R | 460 | 458 | 918 |
| Non-contact | NC | | | |
| Other | O | | 109 | 109 |
| Unknown household | UH | | | |
| Unknown other | UO | | | |
| Not eligible | NE | | | |
| **Total** | | **4,458** | **1,429** | **5,887** |
| AAPOR RR1 = I / (I+P+R+NC+O+UH+UO) | | 90.0% | 60.3% | 82.6% |

*7 KP members were removed for refusal to answer OREINTATIONMOD and 102 removed for self- identifying as non LGB.*

| Cumulative Response Rate | ATP | KP | Total |
|---|---|---|---|
| Weighted Response Rate to Recruitment Surveys^ | 10.8% | 12.3% | 11.2% |

| | | | |
|---|---|---|---|
| Percent of Recruitment Survey Respondents Who Agreed to Join the panel, Among Those Invited | 76.8% | 61.4% | 72.9% |
| Percent of Those Agreeing to Join Who Were Active Panelists at Start of Wave 56 | 78.1% | 24.4% | 64.6% |
| Response Rate to Wave 56 Survey | 90.0% | 62.6% | 81.7% |
| **Cumulative Response Rate for the Wave 56 Survey** | **5.8%** | **4.7%** | **5.3%** |

^ Weighted by the total phone numbers used in each survey