

Pew Research Center's American Trends Panel
Wave 48.5
Methodology Report

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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 wave 48.5 of the panel from May 14 to June 3, 2019. For W48.5, we also included a supplemental sample of KnowledgePanel (KP) General Population¹ and Veterans. In total, 1,234 ATP members and 4,949 KP members (both English- and Spanish-language survey-takers) completed the Wave 48.5 survey. Of those that completed 971 ATP members, 1087 KP General Population members and 313 KP Veterans qualified to take the survey. To qualify, ATP members needed to confirm they were a veteran and KP veterans needed to confirm they were a veteran that served post-9/11. Survey weights were provided separately for the KP General Population sample and the combined ATP and KP veteran sample that qualified to take the survey. The margin of sampling error for weighted estimates based on the Gen Pop sample is ± 3.1 percentage points and the margin of sampling error for weighted estimates based on the Veteran sample is ± 3.9 percentage points.

Sample Definition

There were two target samples for W48.5: 1) non-institutionalized persons age 18 and over, living in the US, including Alaska and Hawaii and 2) Veterans (with an oversample of those that served post-9/11). The General Population sample consisted of a subsample of KP active members (N=1,667). The Veteran sample consisted of all active ATP veterans (as determined by F_VET1) (N=1,491) and all active KP veterans (N=4,412). ATP Veterans were screened and allowed to fully complete the survey if they confirmed they were a veteran that is no longer on active duty. KP Veterans were screened and allowed to fully complete the survey if they confirmed they were a veteran that served after September 11 (post-9/11).

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 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., 2011²).

¹ The field period for the General Population component was May 14 to May 24, 2019.

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.

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 48.5, 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 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

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

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 main data collection field period for Wave 48.5 was May 14, 2019 to June 3, 2019 (the field closed at 9am EST). Postcard notifications were mailed to all ATP panelists with a known residential address on May 14, 2019.

On May 14 and May 15 invitations to Wave 48.5 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 May 14, 2019. The 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 panelists were included in the full launch and were sent an invitation on May 15, 2019.

ATP panelists with an email address received an email invitation and up to seven 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. KP Vets received up to five email reminders and KP Gen Pop received up to three email reminders if they did not respond to the survey.

Invitation and Reminder Dates for Wave 48.5 ATP Panelists

| | Soft Launch | Full Launch |
|---|--------------|--------------|
| Advance Post Card | May 14, 2019 | May 14, 2019 |
| Initial invitation | May 14, 2019 | May 15, 2019 |
| 1 st reminder | May 16, 2019 | May 17, 2019 |
| 2 nd reminder | May 20, 2019 | May 20, 2019 |
| 3 rd reminder (changed subject to Veteran survey) | May 22, 2019 | May 22, 2019 |
| 4 th reminder (1 st Veteran reminder) | May 24, 2019 | May 24, 2019 |
| 5 th reminder (2 nd Veteran reminder) | May 28, 2019 | May 28, 2019 |
| 6 th reminder (3 rd Veteran reminder) | May 31, 2019 | May 31, 2019 |
| Final reminder | June 2, 2019 | June 2, 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 48.5 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 48.5 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.

For W48.5, in order to obtain as many veteran completes as possible, we also offered an additional \$5 incentive to ATP veterans on May 28. We offered KP veteran non-completes a \$5 incentive (in the form of 5,000 survey completion points) on May 23 and increased this to \$10 on May 31.

Data Quality Checks

During the field period, we noticed respondents mentioning that the wording for questions was not appearing correctly. After investigating further, we discovered that questions MILCIV, IMPCTDEPLOY, and MILHELPJOB did not have proper wording inserted when respondents completed the survey on the Edge browser. A total of 186 Wave 48.5 respondents received the incorrect version of MILCIV, 80 received the incorrect version of IMPCTDEPLOY, and 23 received the incorrect version of MILHELPJOB. On May 28, the affected respondents were sent a follow-

up email apologizing for the error and asking them to answer the questions again. The email invitation offered an additional \$5 for completing the re-ask. Those who had consented to receive SMS messages received the link to the re-ask via SMS as well.

On May 30 a reminder email was sent to all with an email address. The re-ask was closed on June 3 with a total of 159 responses (85%) to MILCIV, 70 responses (88%) to IMPCTDEPLOY, and 21 responses (91%) to MILHELPJOB. For the panelists who received the re-ask, the original responses to the incorrect version were replaced in the data with the response to the re-ask for those that completed, or were flagged in the data as missing for those that didn't complete it. In addition, a flag was added to the data to indicate which panelists were affected by the initial error and corresponding re-ask.

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 seven KP respondents from the Wave 48.5 data based on these quality checks. Pew Research Center also removed two ATP respondents from the Wave 48.5 data based on reviewing open end responses and determining the respondents were not eligible.

Weighting

Survey weights are needed to support reliable inference from the panel to the target population of US adults. The final survey dataset contains two sample weight variables: one for the total Gen Pop sample (WEIGHT_GP) and one for the total combined ATP+KP veteran sample (WEIGHT_VET). The design of these weights is described below.

For the Gen Pop weight: Start with the base weights of the assigned sample, respondents are weighted to represent the ages 18+ population on the following variables:

- Gender (Male, Female) by Age (18-29, 30-44, 45-59, 60+)
- Race-ethnicity (White, Black, Other, Hispanic, 2+ Races)
- Census Region (Northeast, Midwest, South, West) by Metropolitan Status (Metro, Non-Metro)
- Education (Less than High School, High School, Some College, Bachelor Degree or Higher)
- Household Income (Under \$25K, \$25-\$49,999, \$50K-\$74,999, \$75K-\$99,999, \$100K-\$149,999, \$150K and Over)
- Language Proficiency (English Proficient Hispanic, Bilingual Hispanic, Spanish Proficient Hispanic, Non-Hispanic)

Weights are scaled to sum to the un-weighted sample size of all respondents (WEIGHT_GP; n=1087). Benchmarks were obtained from the March 2018 CPS.

For the Veterans weight: Start with the base weights of the KP and ATP assigned sample, scale the KP and ATP base weights proportional to effective sample size, downweight the combined ATP and KP post-9/11 Veterans to be 19.42% of the combined sample (Era served target in the spreadsheet that Arnold sent), weight veteran respondents are weighted to client benchmark by control demos within post 9/11 veteran/pre 911 veteran on:

- Gender (Male, Female)
- Age (18-24,25-34,35-44,45-54,55+) – Post 911/Age (18-44,45-54,55-64,65+) – Pre 911
- Race-ethnicity (White, Black, Hispanic, 2+ Races& Other)
- Census Region (Northeast, Midwest, South, West)
- Education (Less than High School/High School, Some College, Bachelor Degree or Higher)

Weights are scaled to sum to the un-weighted sample size of qualified veterans (WEIGHT_VET) and trimmed by Post and Pre 9/11 veterans. The weighting benchmarks for Veterans were provided by Pew Research Center.

Weights Definition:

WEIGHT_GP: Wave 48.5 KP Gen Pop cases

WEIGHT_VET: Wave 48.5 ATP+KP Qualified Veterans

Trimming:

WEIGHT_GP: None

WEIGHT_VET: Post 911: (1.85%, 98.56%) Pre 911 (1.75%, 98%)

Approximate Design Effect:

WEIGHT_GP: 1.1118

WEIGHT_VET: 2.0537

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 and KP 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.

Raking Dimensions and Source for Population Parameter Estimates For Gen Pop Weights

| Raking Dimension^ | Source |
|--------------------------|----------------|
| Gender(2) x Age(4) | 2018 March CPS |
| Race/Ethnicity (5) | 2018 March CPS |
| Region (4) x MSA (2) | 2018 March CPS |
| Education (4) | 2018 March CPS |

Income (6) 2018 March CPS

Language Proficiency (4) 2017 American Community Survey

^ The numbers of categories (prior to any collapsing from small cell size) are shown in parentheses.

Raking Dimensions and Source for Population Parameter Estimates For Veterans Weights

| Raking Dimension^ | Source |
|--------------------------------------|--|
| Era Served (2) | 2017 American Community Survey 1-Year PUMS |
| Gender(2) x Era Served (2) | 2017 American Community Survey 1-Year PUMS |
| Age(4,5) x Era Served (2)* | 2017 American Community Survey 1-Year PUMS |
| Education(3) x Era Served (2) | 2017 American Community Survey 1-Year PUMS |
| Race/Ethnicity (4) by Era Served (2) | 2017 American Community Survey 1-Year PUMS |
| Region(4) by Era Served (2) | 2017 American Community Survey 1-Year PUMS |

^ The numbers of categories (prior to any collapsing from small cell size) are shown in parentheses.

*note that the age split differed by Era Served

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 Gen Pop sample estimates at 50% is ± 3.1 and for the Veterans sample ± 3.9 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 | Margin of Error (95% confidence level) |
|-----------------|----------------------|---------------------------|--|
| WEIGHT_GP | 1,087 | 1.11 | ± 3.1 |
| WEIGHT_VET | 1,284 | 2.05 | ± 3.9 |

Dispositions

The survey cooperation rate for Wave 48.5 itself was 63.1%. The final table reports the cumulative response rate for Wave 48.5 when all stages of recruitment or response are taken into account.

| Final Dispositions for the Wave 48.5 Web Survey | | | | |
|--|-------------------------|--------------|--------------|--------------|
| Final Disposition | AAPOR Code ¹ | ATP | KP | TOTAL |
| Completed interview | 1.1 | 971 | 1,400 | 2,371 |
| Logged onto survey; broke-off | 2.12 | 3 | 21 | 24 |
| Logged onto survey; did not complete any items | 2.1121 | 10 | 47 | 57 |
| Never logged on (implicit refusal) | 2.11 | 242 | 1,055 | 1,297 |
| Completed interview but was removed for data quality | | 2 | 7 | 9 |
| Completed, ineligible | | 263 | 3,549 | 3,812 |
| Total Panelists in the Wave 48.5 Web Survey | | 1,491 | 6,079 | 7,570 |
| Completed interviews | I | 971 | 1,400 | 2,371 |
| Partial interviews | P | | | |
| Refusals | R | 257 | 1,130 | 1,387 |
| Non-contact | NC | | | |
| Other | O | | | |
| Unknown household | UH | | | |
| Unknown other | UO | | | |
| Not eligible | NE | 263 | 3,549 | 3,812 |
| Total | | 1,491 | 6,079 | 7,570 |
| AAPOR RR1 = I / (I+P+R+NC+O+UH+UO) | | 79.1% | 55.3% | 63.1% |

| Cumulative Response Rate | ATP | KP | TOTAL |
|---|-------|-------|-------|
| Weighted Response Rate to Recruitment Surveys^ | 10.8% | 12.8% | 12.4% |
| Percent of Recruitment Survey Respondents Who Agreed to Join the panel, Among Those Invited | 74.7% | 62.5% | 64.9% |

| | | | |
|---|-------------|-------------|-------------|
| Percent of Those Agreeing to Join Who Were Active Panelists at Start of Wave 48.5 | 76.4% | 21.7% | 32.5% |
| Response Rate to Wave 48.5 Survey | 79.1% | 55.3% | 63.1% |
| Cumulative Response Rate for the Wave 48.5 Survey | 4.9% | 1.0% | 1.6% |

^ Weighted by the total phone numbers used in each survey

*Note for W48.5, we calculated the Response Rates by computing the mean rates for the sub-sampled respondents (based on the rates from the recruitment survey they joined the panel on).