

Methodology

The American Trends Panel survey methodology

Overview

Survey data in this analysis comes from Wave 165 of the American Trends Panel (ATP), Pew Research Center’s nationally representative panel of randomly selected U.S. adults. The survey was conducted from March 10 to March 16, 2025. A total of 9,482 panelists responded out of 10,576 who were sampled, for a survey-level response rate of 90%.

The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 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 9,482 respondents is plus or minus 1.4 percentage points.

SSRS conducted the survey for Pew Research Center via online (n=9,231) and live telephone (n=251) interviewing. Interviews were conducted in both English and Spanish.

To learn more about the ATP, read “[About the American Trends Panel](#).”

Panel recruitment

Since 2018, the ATP has used address-based sampling (ABS) for recruitment. A study cover letter and a pre-incentive are mailed to a stratified, random sample of households selected from the U.S. Postal Service’s Computerized Delivery Sequence File. This Postal Service file has been estimated to cover 90% to 98% of the population.¹ Within each sampled household, the adult with the next birthday is selected to participate. Other details of the ABS recruitment protocol have changed over time but are available upon request.² Prior to 2018, the ATP was recruited using landline and cellphone random-digit-dial surveys administered in English and Spanish.

A national sample of U.S. adults has been recruited to the ATP approximately once per year since 2014. In some years, the recruitment has included additional efforts (known as an “oversample”) to improve the accuracy of data for underrepresented groups. For example, Hispanic adults, Black adults and Asian adults were oversampled in 2019, 2022 and 2023, respectively.

¹ AAPOR Task Force on Address-based Sampling. 2016. “[AAPOR Report: Address-based Sampling](#).”

² Email pewsurveys@pewresearch.org.

Sample design

The overall target population for this survey was noninstitutionalized persons ages 18 and older living in the United States. All active panel members were invited to participate in this wave.

Questionnaire development and testing

The questionnaire was developed by Pew Research Center in consultation with SSRS. The web program used for online respondents was rigorously tested on both PC and mobile devices by the SSRS project team and Pew Research Center researchers. The SSRS project team also populated test data that 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 gift code to Amazon.com, Target.com or Walmart.com. Incentive amounts ranged from \$5 to \$20 depending on whether the respondent belongs to a part of the population that is harder or easier to reach. 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 March 10 to March 16, 2025. Surveys were conducted via self-administered web survey or by live telephone interviewing.

For panelists who take surveys online:³ Postcard notifications were mailed to a subset on March 10.⁴ Survey 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 March 10. All remaining English- and Spanish-speaking sampled online panelists were included in the full launch and were sent an invitation on March 11.

³ The ATP does not use routers or chains in any part of its online data collection protocol, nor are they used to direct respondents to additional surveys.

⁴ Postcard notifications for web panelists are sent to 1) panelists who were recruited within the last two years and 2) panelists recruited prior to the last two years who opt to continue receiving postcard notifications.

Panelists participating online were sent an email invitation and up to two email reminders if they did not respond to the survey. ATP panelists who consented to SMS messages were sent an SMS invitation with a link to the survey and up to two SMS reminders.

**Invitation and reminder dates for web respondents,
ATP Wave 165**

	Soft launch	Full launch
Initial invitation	March 10, 2025	March 11, 2025
First reminder	March 13, 2025	March 13, 2025
Final reminder	March 15, 2025	March 15, 2025

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For panelists who take surveys over the phone with a live interviewer: Prenotification postcards were mailed on March 7. Soft launch took place on March 11 and involved dialing until a total of four interviews had been completed. All remaining English- and Spanish-speaking sampled phone panelists' numbers were dialed throughout the remaining field period. Panelists who take surveys via phone can receive up to six calls from trained SSRS interviewers.

Data quality checks

To ensure high-quality data, Center researchers performed data quality checks to identify any respondents showing patterns of satisficing. This includes checking for whether respondents left questions blank at very high rates or always selected the first or last answer presented. As a result of this checking, four ATP respondents were removed from the survey dataset prior to weighting and analysis.

Weighting

The ATP data is weighted in a process that accounts for multiple stages of sampling and nonresponse that occur at different points in the panel survey process. First, each panelist begins with a base weight that reflects their probability of recruitment into the panel. These weights are then calibrated to align with the population benchmarks in the accompanying table to correct for nonresponse to recruitment surveys and panel attrition. If only a subsample of panelists was invited to participate in the wave, this weight is adjusted to account for any differential probabilities of selection.

Among the panelists who completed the survey, this weight is then calibrated again to align with the population benchmarks identified in the accompanying table and trimmed at the 1st and 99th percentiles to reduce the loss in precision stemming from variance in the weights. Sampling errors and tests of statistical significance take into account the effect of weighting.

American Trends Panel weighting dimensions

Variable	Benchmark source
Age (detailed)	2023 American Community Survey (ACS)
Age x Gender	
Education x Gender	
Education x Age	
Race/Ethnicity x Education	
Race/Ethnicity x Gender	
Race/Ethnicity x Age	
Born inside vs. outside the U.S. among Hispanics and Asian Americans	
Years lived in the U.S.	
Census region x Metropolitan status	
Volunteerism	2023 CPS Volunteering & Civic Life Supplement
Voter registration	2020 CPS Voting and Registration Supplement
Frequency of internet use	2024 National Public Opinion Reference Survey (NPORS)
Religious affiliation	
Party affiliation x Race/Ethnicity	
Party affiliation x Age	
Party affiliation among registered voters	

Note: Estimates from the ACS are based on noninstitutionalized adults. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total U.S. adult population.

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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.

Sample sizes and margins of error, ATP Wave 165

Group	Unweighted sample size	Plus or minus ...
Total sample	9,482	1.4 percentage points
Rep/Lean Rep	4,376	2.0 percentage points
Dem/Lean Dem	4,912	1.8 percentage points

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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

Final dispositions, ATP Wave 165

	AAPOR code	Total
Completed interview	1.1	9,482
Logged in (web)/Contacted (CATI), but did not complete any items	2.11	172
Started survey; broke off before completion	2.12	57
Never logged on (web)/Never reached on phone (CATI)	2.20	861
Survey completed after close of the field period	2.27	0
Other non-interview	2.30	0
Completed interview but was removed for data quality	2.90	4
Total panelists sampled for the survey		10,576
Completed interviews	I	9,482
Partial interviews	P	0
Refusals	R	229
Non-contact	NC	861
Other	O	4
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
Total		10,576
AAPOR RR1 = $I / (I+P+R+NC+O+UH+UO)$		90%

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Cumulative response rate, ATP Wave 165

	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 165	35%
Response rate to Wave 165 survey	90%
Cumulative response rate	3%

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How family income tiers are calculated

Family income data reported in this study is adjusted for household size and cost-of-living differences by geography. Panelists then are assigned to income tiers that are based on the median adjusted family income of all American Trends Panel members. The process uses the following steps:

1. First, panelists are assigned to the midpoint of the income range they selected in a family income question that was measured on either the most recent annual profile survey or, for newly recruited panelists, their recruitment survey. This provides an approximate income value that can be used in calculations for the adjustment.
2. Next, these income values are adjusted for the cost of living in the geographic area where the panelist lives. This is calculated using price indexes published by the U.S. Bureau of Economic Analysis. These indexes, known as [Regional Price Parities](#) (RPP), compare the prices of goods and services across all U.S. metropolitan statistical areas as well as non-metro areas with the national average prices for the same goods and services. The most recent available data at the time of the annual profile survey is from 2022. Those who fall outside of metropolitan statistical areas are assigned the overall RPP for their state's non-metropolitan area.
3. Family incomes are further adjusted for the number of people in a household using the methodology from Pew Research Center's previous work on [the American middle class](#). This is done because a four-person household with an income of say, \$50,000, faces a tighter budget constraint than a two-person household with the same income.
4. Panelists are then assigned an income tier. "Middle-income" adults are in families with adjusted family incomes that are between two-thirds and double the median adjusted family income for the full ATP at the time of the most recent annual profile survey. The median adjusted family income for the panel is roughly \$74,100. Using this median income, the middle-income range is about \$49,400 to \$148,200. Lower-income families have adjusted incomes less than \$49,400 and upper-income families have adjusted incomes greater than \$148,200 (all figures expressed in 2023 dollars and scaled to a household size of three). If a panelist did not provide their income and/or their household size, they are assigned "no answer" in the income tier variable.

Two examples of how a given area's cost-of-living adjustment was calculated are as follows: the Pine Bluff metropolitan area in Arkansas is a relatively inexpensive area, with a price level that is 19.1% less than the national average. The San Francisco-Oakland-Berkeley metropolitan area in

California is one of the most expensive areas, with a price level that is 17.9% higher than the national average. Income in the sample is adjusted to make up for this difference. As a result, a family with an income of \$40,400 in the Pine Bluff area is as well off financially as a family of the same size with an income of \$58,900 in San Francisco.

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