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 ATP Wave 123, conducted March 13-19, 2023, and includes an oversample of Asian, Black and Hispanic adults in order to provide more precise estimates of the opinions and experiences of these smaller demographic subgroups. These oversampled groups are weighted back to reflect their correct proportions in the population. A total of 10,701 panelists responded out of 11,986 who were sampled, for a response rate of 89%. 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 10,701 respondents is plus or minus 1.4 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.

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	1,503
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	881
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	434
Aug. 8 to Oct. 31, 2018	ABS	9,396	8,778	4,116
Aug. 19 to Nov. 30, 2019	ABS	5,900	4,720	1,472
June 1 to July 19, 2020; Feb. 10 to March 31, 2021	ABS	3,197	2,812	1,541
May 29 to July 7, 2021; Sept. 16 to Nov. 1, 2021	ABS	1,329	1,162	788
May 24 to Sept. 29, 2022	ABS	3,354	2,869	1,698
	Total	**42,894**	**30,283**	**12,433**

Note: RDD is random-digit dial; ABS is address-based sampling. 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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In August 2018, the ATP switched from telephone to address-based recruitment. Invitations were sent to a stratified, random sample of households selected from the U.S. Postal Service's Delivery Sequence File. Sampled households receive mailings asking a randomly selected adult to complete a survey online. A question at the end of the survey asks if the respondent is willing to join the ATP. In 2020 and 2021 another stage was added to the recruitment. Households that did not respond to the online survey were sent a paper version of the questionnaire, $5 and a postage-paid return envelope. A subset of the adults who returned the paper version of the survey were invited to join the ATP. This subset of adults received a follow-up mailing with a $10 pre-incentive and invitation to join the ATP.

Across the five address-based recruitments, a total of 23,176 adults were invited to join the ATP, of whom 20,341 agreed to join the panel and completed an initial profile survey. In each household, one adult was selected and asked to go online to complete a survey, at the end of which they were invited to join the panel. Of the 30,283 individuals who have ever joined the ATP, 12,433 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] 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. It featured a stratified random sample from the ATP in which Hispanic adults, non-Hispanic Black adults and non-Hispanic Asian adults were selected with certainty. The remaining panelists were sampled at rates designed to ensure that the share of respondents in each stratum is proportional to its share of the U.S. adult population to the greatest extent possible. Respondent weights are adjusted to account for differential probabilities of selection as described in the Weighting section below.

[1] AAPOR Task Force on Address-based Sampling. 2016. "AAPOR Report: Address-based Sampling."

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 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 a gift code to Amazon.com or could choose to decline the incentive. 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 13-19, 2023. Postcard notifications were mailed to all ATP panelists with a known residential address on March 13.

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 13. 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 March 14.

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 who consented to SMS messages received an SMS invitation and up to two SMS reminders.

Invitation and reminder dates, ATP Wave 123

	Soft launch	Full launch
Initial invitation	March 13, 2023	March 14, 2023
First reminder	March 16, 2023	March 16, 2023
Final reminder	March 18, 2023	March 18, 2023

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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. No ATP respondents were removed from the survey dataset prior to weighting and analysis.

Weighting

The ATP data is 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. These weights are then rescaled and adjusted to account for changes in the design of ATP recruitment surveys from year to year. Finally, the weights are 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.

American Trends Panel weighting dimensions

Variable	Benchmark source
Age (detailed) Age x Gender 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.	2021 American Community Survey (ACS)
Census region x Metro/Non-metro	2021 CPS March Supplement
Volunteerism	2021 CPS Volunteering & Civic Life Supplement
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation Frequency of internet use Religious affiliation	2022 National Public Opinion Reference Survey (NPORS)
Additional weighting dimensions applied within Black adults	
Age Gender Education Hispanic ethnicity	2021 American Community Survey (ACS)
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation Religious affiliation	2022 National Public Opinion Reference Survey (NPORS)

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 U.S. adult population.

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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.

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 123

Group	Unweighted sample size	Plus or minus ...
Total sample	10,701	1.4 percentage points
White, non-Hispanic	6,897	1.7 percentage points
Black, non-Hispanic	1,480	4.0 percentage points
Hispanic	1,475	4.5 percentage points
Asian, non-Hispanic	375	7.2 percentage points
Ages 18-29	925	4.4 percentage points
30-49	3,446	2.5 percentage points
50-64	3,123	2.5 percentage points
65+	3,166	2.5 percentage points
Heard of ChatGPT	6,635	1.8 percentage points
Ever used ChatGPT	1,337	4.1 percentage points

Note: This survey includes oversamples of Hispanic, non-Hispanic Black, and non-Hispanic Asian respondents. Unweighted sample sizes do not account for the sample design or weighting and do not describe a group's contribution to weighted estimates. See the Sample design and Weighting sections above for details.

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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.

A note about the Asian adult sample

This survey includes a total sample size of 375 Asian adults. The sample primarily includes English-speaking Asian adults and, therefore, may not be representative of the overall Asian adult population. Despite this limitation, it is important to report the views of Asian adults on the topics in this study. As always, Asian adults' responses are incorporated into the general population figures throughout this report. Because of the relatively small sample size and a reduction in precision due to weighting, we are not able to analyze Asian adults by demographic categories, such as gender, age or education.

Adjusting income and defining income tiers

To create upper-, middle- and lower-income tiers, respondents' 2021 family incomes were adjusted for differences in purchasing power by geographic region and 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 household size). The middle-income range for the American Trends Panel is about $43,800 to $131,500 annually for an average family of three. Lower-income families have incomes less than roughly $43,800, and upper-income families have incomes greater than roughly $131,500 (all figures expressed in 2021 dollars).

Based on these adjustments, 29% of respondents in Wave 123 are lower income, 47% are middle income and 18% fall into the upper-income tier. An additional 6% didn't offer a response to either the income question or the household size question.

Refer to the Methodology for more information about how the income tiers were determined.

Dispositions and response rates

Final dispositions, ATP Wave 123

	AAPOR code	Total
Completed interview	1.1	10,701
Logged on to survey; broke off	2.12	55
Logged on to survey; did not complete any items	2.1121	160
Never logged on (implicit refusal)	2.11	1,064
Survey completed after close of the field period	2.27	6
Completed interview but was removed for data quality		0
Screened out		0
Total panelists in the survey		**11,986**
Completed interviews	I	10,701
Partial interviews	P	0
Refusals	R	1,279
Non-contact	NC	6
Other	O	0
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
Total		**11,986**
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		89%

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Cumulative response rate as of ATP Wave 123

	Total
Weighted response rate to recruitment surveys	12%
% of recruitment survey respondents who agreed to join the panel, among those invited	71%
% of those agreeing to join who were active panelists at start of Wave 123	49%
Response rate to Wave 123 survey	89%
Cumulative response rate	**4%**

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2023 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL
WAVE 123 INTERNET TOPLINE
March 13-19, 2023
N=10,701

THE QUESTIONS PRESENTED BELOW ARE PART OF A LARGER SURVEY CONDUCTED ON THE AMERICAN TRENDS PANEL. OTHER QUESTIONS ON THIS SURVEY HAVE BEEN RELEASED OR ARE BEING HELD FOR FUTURE RELEASE.

NOTE: ALL NUMBERS ARE PERCENTAGES UNLESS OTHERWISE NOTED. THE PERCENTAGES LESS THAN 0.5% ARE REPLACED BY AN ASTERISK (*). ROWS/COLUMNS MAY NOT TOTAL 100% DUE TO ROUNDING.

	Sample size	Margin of error at 95% confidence level
U.S. adults	10,701	+/- 1.4 percentage points

ASK ALL:
GPT1 How much, if anything, have you heard about ChatGPT, an artificial intelligence (AI) program used to create text?

Mar 13-19, 2023	
18	A lot
39	A little
42	Nothing at all
*	No answer

ASK IF HAVE HEARD A LOT OR A LITTLE ABOUT CHATGPT (GPT1=1,2) [N=6,635]:
GPT2 Have you ever used ChatGPT for any of the following? **[RANDOMIZE ITEMS]**

		Yes, I have done this	No, I have not done this	No answer
a.	For entertainment			
	Mar 13-19, 2023	19	81	*
b.	To learn something new			
	Mar 13-19, 2023	14	85	*
c.	**ASK IF HAVE HEARD A LOT OR A LITTLE ABOUT CHATGPT (GPT1=1,2) AND CURRENTLY WORKING FOR PAY (EMPLSIT=1,2) [N=4,149]:** For tasks at work			
	Mar 13-19, 2023	12	88	*

GPT2 BASED ON ALL ADULTS:

	Yes, I have done this	No, I have not done this	Did not receive GPT2[2]	No answer to GPT1	No answer to GPT2
a. For entertainment					
Mar 13-19, 2023	11	47	42	*	*
b. To learn something new					
Mar 13-19, 2023	8	49	42	*	*
c. For tasks at work					
Mar 13-19, 2023	5	33	62	*	*

ASK IF SAID YES TO ANY OF CHATGPT ACTIVITIES (GPT2a=1 or GPT2b=1 or GPT2c=1) [N=1,337]:

GPT3 How useful has ChatGPT been to you?

Mar 13-19, 2023	
15	Extremely useful
20	Very useful
39	Somewhat useful
21	Not very useful
6	Not at all useful
*	No answer

[2] Those who said they have heard nothing at all about ChatGPT or gave no answer to GPT1 did not receive items a and b in GPT2. Those who also said they are currently not working or gave no answer to EMPLSIT did not receive item c in GPT2.