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 the panel wave conducted from Sept. 20 to Oct. 2, 2022, among a sample of U.S. adults who are parents of at least one child under the age of 18. A total of 3,757 panelists responded out of 5,293 who were sampled, for a response rate of 76% (AAPOR RR3). This included 2,987 respondents from the ATP and an oversample of 770 Hispanic, non-Hispanic Black and non-Hispanic Asian respondents from Ipsos' KnowledgePanel 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.

The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 2%. The break-off rate among panelists who logged on to the survey and completed at least one item is 2%. The margin of sampling error for the full sample of 3,757 respondents is plus or minus 2.2 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

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	1,504
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	882
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	4,121
Aug. 19 to Nov. 30, 2019	ABS	5,900	4,720	1,478
June 1 to July 19, 2020; Feb. 10 to March 31, 2021	ABS	3,197	2,812	1,543
May 29 to July 7, 2021 Sept. 16 to Nov. 1, 2021	ABS	1,329	1,162	790
May 24 to July 6, 2022	ABS	2,724	2,324	1,390
	Total	**42,264**	**29,738**	**12,142**

Note: 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. The 2022 recruitment survey was ongoing at the time W115 was conducted. The counts reflect completed recruitment interviews up through July 6, 2022.

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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.

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 22,546 adults were invited to join the ATP, of whom 19,796 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 29,738 individuals who have ever joined the ATP, 12,142 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, who are parents of at least one child under the age of 18. The ATP sample consisted of all current panel members who reported having at least one child under the age of 18 on the ATP's 2022 annual profile survey. The ATP was supplemented with an oversample of Hispanic, non-Hispanic Black and non-Hispanic Asian respondents from the KnowledgePanel who are parents of at least one child under the age of 18.

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

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

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 ATP 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.

Ipsos operates an ongoing modest incentive program for KnowledgePanel to encourage participation and create member loyalty. The incentive program includes special raffles and sweepstakes with both cash rewards and other prizes to be won. Typically, panel members are assigned no more than one survey per week. On average, panel members complete two to three surveys per month with durations of 10 to 15 minutes per survey. An additional incentive is usually provided for longer surveys. For this survey, during the last few days of data collection, KnowledgePanel members who self-identified as Asian or Asian American were offered 10,000 points (equivalent to $10) in addition to the regular incentive program in an attempt to boost the number of responses from panel members who identified as Asian or Asian American.

Data collection protocol

The data collection field period for this survey was Sept. 20 to Oct. 2, 2022. Postcard notifications were mailed to all ATP panelists with a known residential address on Sept. 19.

Invitations were sent out in two separate launches: Soft Launch and Full Launch. Sixty ATP panelists and 609 KnowledgePanel panelists were included in the soft launch, which began with an initial invitation sent on Sept. 20. 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 Sept. 22.

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

	Soft Launch	Full Launch
Initial invitation	Sept. 20, 2022	Sept. 22, 2022
First reminder	Sept. 24, 2022	Sept. 24, 2022
Second reminder	Sept. 26, 2022	Sept. 26, 2022
Third reminder	Sept. 28, 2022	Sept. 28, 2022
Final reminder	Sept. 30, 2022	Sept. 30, 2022

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. After this checking, no respondents were removed from the survey dataset prior to weighting and analysis.

Weighting

The 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 recruitment surveys from year to year, nonresponse to the recruitment survey and panel attrition. Weights for the KnowledgePanel respondents were also adjusted to account for their probability of being selected to participate in this survey. No such adjustment was made for ATP respondents because all eligible ATP members were invited to participate.

Next, respondents were placed into one of four sample groups: 1) non-Hispanic Black respondents, 2) non-Hispanic Asian respondents, 3) Hispanic respondents and 4) all other respondents. Separately within each group, the weights for ATP and KnowledgePanel respondents were scaled to be proportional to their effective sample size within that group. The ATP and KnowledgePanel respondents were then recombined and the weights were poststratified so that the weighted proportion of respondents in each of the four groups matched its share of all U.S. adults who are parents of at least one child under 18.

The weights were then calibrated to align with the population benchmarks in the accompanying table which were calculated for the population of U.S. adults who are parents of at least one child under 18 that lives in their household. Finally, the weights were trimmed at the 1st and 99th percentiles to reduce the loss in precision stemming from variance in the weights.

For part of this survey, parents were asked a series of questions about either their oldest or youngest child in grades K-12 at random. Additional sets of weights were created for parents who were asked about a child in elementary school, middle school or high school respectively to account for the possibility that for some parents, it would have been possible for a child in a different grade level to have been randomly selected. These were created by adjusting each parent's full-sample weight based on the proportion of their children in the same grade level as the selected child.

Weighting dimensions

Variable	Benchmark source
Age (detailed)	2021 Current Population Survey March Supplement
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	
Census region x Metro/Non-metro	

Note: Population benchmarks used in weighted were calculated among adults who are parents of at least one child under 18 that lives in their household.

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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.

Group	Unweighted sample size	Plus or minus ...
Total sample	3,757	2.2 percentage points
Parents of at least one child in K-12	3,251	2.3 percentage points

Note: This survey was conducted only among parents of children under 18 and includes oversamples of non-Hispanic Black, non-Hispanic Asian and Hispanic 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.

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	AAPOR code	ATP	KP	Total
Completed interview	1.1	2,987	770	3,757
Logged onto survey; broke off	2.12	18	42	60
Logged onto survey; did not complete any items	2.1121	11	31	42
Never logged on (implicit refusal)	2.11	166	1,008	1,174
Survey completed after close of the field period	2.27	0	0	0
Completed interview but was removed for data quality	2.3	0	0	0
Screened out	4.7	131	129	260
Total panelists in the survey		3,313	1,980	5,293
Completed interviews	I	2,987	770	3,757
Partial interviews	P	0	0	0
Refusals	R	18	42	60
Non-contact	NC	0	0	0
Other	O	0	0	0
Unknown household	UH	0	0	0
Unknown other	UO	177	1,039	1,216
Not eligible	NE	0	0	0
Screen out	SO	131	129	260
Total		3,313	1,980	5,293
Est. eligibility rate among unscreened: e = (I+R)/(I+R+SO)		96%	86%	94%
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		94%	42%	75%
AAPOR RR3 = I / (I+R+[e*UO])		94%	45%	76%

Cumulative response rate	ATP	KP	Total
Weighted response rate to recruitment surveys	10%	8%	9%
% of recruitment survey respondents who agreed to join the panel, among those invited	70%	58%	66%
% of those agreeing to join who were active panelists at start of Wave 115	41%	48%	44%
Response rate to Wave 115 survey	94%	45%	76%
Cumulative response rate	3%	1%	2%

Adjusting income and defining income tiers

Family income data reported in this study is adjusted for household size and cost-of-living differences by geography using a similar methodology to Pew Research Center's previous work on

the American middle class. The income tiers used in this analysis are also created following methodology previously used in the Center's work on the middle class.

Prior to these adjustments, American Trends Panel members were assigned to the midpoint of the income range they selected during the survey to provide an exact income figure for adjustment.

The metropolitan area cost-of-living adjustment is based on 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 384 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 is from 2020.

The national estimates presented in the analysis encompass the U.S. adult population. Those who fall outside of the 381 metropolitan statistical areas in which current ATP panelists reside are assigned the RPP for their state's non-metropolitan area.

Family incomes are then adjusted for the number of people in a household using the methodology from Pew Research Center's previous work on the American middle class. That 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.

"Middle-income" adults are in families with annual incomes that are two-thirds to double the median family income in the full ATP sample after incomes have been adjusted for household size and the local cost of living. The median family income for the panel is roughly $65,800 for an average family of three. Using this median income, the middle-income range is about $43,800 to $131,500 annually for a three-person family. 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 115 are lower income, 50% are middle income and 18% fall into the upper-income tier. An additional 3% either didn't offer a response to the income question or the household size question.

Two examples of how a given area's cost-of-living adjustment was calculated are as follows: The Florence-Muscle Shoals metropolitan area in Alabama is a relatively inexpensive area, with a price level that is 17.6% 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 17.4% 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 $41,200 in the Florence area is equivalent to a family with an income of $58,700 in San Francisco.

A note about the Asian adult sample

This survey includes a total sample size of 329 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.