Annenberg Survey of Attitudes on Public Health (ASAPH)

Methods Report for the Annenberg Public Policy Center

ASAPH National Survey Wave 25

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Overview

The Annenberg Public Policy Center of the University of Pennsylvania (APPC) engaged SSRS to conduct the 25th Wave of the Annenberg Survey of Attitudes on Public Health (ASAPH) National Survey. This survey wave focused on respondents' opinions and awareness on various topics such as vaccines, climate change, and infectious diseases, among other topics.

The Wave 25 survey invited U.S. adults aged 18 and older who had completed the ASAPH Wave 1 survey in April 2021, or who were recruited in ASAPH Wave 9 or the ASAPH Engagement Survey (both of which took place in 2023), or who were recruited during the August 2024 Replenishment, to participate. Only panelists who previously reported NOT being a member of other U.S. opinion panels were invited. The invited sample size (i.e., the full panel size) was $N = 2,550$.

Data collection was conducted between August 5 and August 18, 2025 on 1,699 respondents. This included 1,671 respondents who took the survey in English, and 28 respondents who took the survey in Spanish. There were 1,671 web respondents and 28 telephone interview respondents. There were 1,289 respondents who joined the panel in 2021, 67 respondents who joined in 2023, and 343 respondents who joined in 2024. Data were weighted to represent the U.S. residential adult population. This report provides information about the sampling procedures and the methods used to collect, process, and weight data for ASAPH National Survey Wave 25.

Questionnaire Design

The questionnaire was developed by APPC in consultation with the SSRS project team. SSRS reviewed the questionnaire primarily to identify potential problems in the instrument that might increase respondent burden, cause respondents to refuse or terminate the interview, create problems with respondent comprehension, or pose practical challenges for mode-specific administration, such as complex skip patterns. The questionnaire was translated into Spanish so respondents could choose to take the survey in English or Spanish based on their preference that they voiced when joining the panel. Prior to the field period, SSRS programmed the study into its Forsta Plus (formerly known as Confirmit) platform that allows data to be collected both online and through Computer Assisted Telephone Interviewing (CATI). Extensive checking of the program was conducted to ensure that skip patterns and sample splits followed the design of the questionnaire.

Sample Design: The Annenberg Science and Health Panel

Annenberg Science and Health Panel members are recruited randomly based on a nationally representative ABS (Address Based Sample) design (including Hawaii and Alaska). ABS

respondents are randomly sampled by Marketing Systems Group (MSG) through the U.S. Postal Service's Computerized Delivery Sequence File (CDS), a regularly updated listing of all known addresses in the U.S. For the Annenberg Science and Health Panel, known business addresses are excluded from the sample frame.

The Annenberg Science and Health Panel is a multi-modal panel. Internet households participate via web, while all non-internet households (including those who have internet access but are unwilling to take surveys online) participate via phone.

Data Collection

Survey Sampling

The invited sample for the ASAPH National Survey Wave 25 consisted of N=2,550 Annenberg Science and Health Panelists who were recruited to the ASAPH panel through the Wave 1, Wave 9, the Engagement survey, or the August 2024 Replenishment effort, and were not members of other U.S. opinion panels. The sample from Wave 1 consisted of a probability-based address-based sample (ABS) of U.S. households, and was stratified by age, gender, race and ethnicity, education, region, party identification and language to ensure adequate representation of each. Sample recruited from Wave 9 or the Engagement Survey were SSRS Opinion Panelists who indicated their educational attainment was a high school degree or less. The sample for the Replenishment likewise consisted of a probability-based address-based sample (ABS) of U.S. households, stratified to correct for expected differential recruitment rates and ensure adequate representation of key subpopulations, including adults ages 18-24, those with a high school education or less, and Republicans.

Survey Administration Procedures

A "soft launch" inviting a limited number of panelists to participate was conducted in the evening of Tuesday, August 5, 2025. After checking soft launch data to ensure that all questionnaire content and skip patterns were correct, the remaining sample was released in the early afternoon of August 6, 2025.

Web panelists were emailed an invitation to complete the survey online. The email for each respondent included a unique passcode-embedded link. All web panelists who did not respond to their first invitation received up to nine reminder emails, and non-responding web panelists who had opted to receive text messages received up to six text message reminders.

In appreciation for their participation, web panelists received a $15 incentive in the form of an electronic gift card. Telephone respondents received a $15 incentive in the form of a mailed check.

Median survey length was 25.8 minutes online and 50.1 minutes by phone.

Quality Control Checks

For APPC National Survey Wave 25, SSRS built in three closed-ended trap questions to the web version of the program. This included 1 sincerity check and 2 trap questions that were placed in random places in the survey to monitor whether panelists were attentive or not. Respondents who failed the quality checks were not included in the final data set. This included:

1. Respondents who answered two or more trap questions incorrectly (*n=2*).
2. Respondents with a length of interview (LOI) less than 20% of the overall median LOI[1] (*n=2*).
3. Respondents who skipped more than 10% of the questions asked (*n=0*).
4. Respondents who answered "No" to the IDCHECK question and whose gender and/or age did not match their record in the panel database (*n=0*).

A total of *n=4* completed surveys were removed (0.2%) after applying these cleaning standards.

For telephone surveys, interviews were closely monitored by interviewing staff and project staff for quality control. In addition, select recordings were reviewed by supervisors to monitor quality and interviewer procedures.

Data Processing and Integration

Data from web and telephone modes were combined and thoroughly cleaned with a computer validation program written by one of SSRS's data processing programmers. This program established editing parameters in order to locate any errors, including data that did not follow skip patterns, out-of-range values, and errors in data field locations. No back-coding or code development was done.

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[1] LOI less than 5.16 minutes.

Completion Rates/Response Rates

Tables 1 through 3 detail the survey completion rates for this study.

Table 1: Completion Rates/Response Rates for Full Sample

Touchpoint	Web	Telephone	Overall
Invited to Participate/Total Sample	2,421	129	2,550
Completed[2]	1,671	28	1,699
Survey Completion Rate	69.0%	21.7%	66.6%

Table 2: Completion Rates/Response Rates for Legacy Panelists

Touchpoint	Web	Telephone	Overall
Invited to Participate/Total Sample	1,854	66	1,920
Completed[3]	1,337	19	1,356
Survey Completion Rate	72.1%	28.8%	70.6%

Table 3: Completion Rates/Response Rates for Newly Recruited Panelists (Replenishment)

Touchpoint	Web	Telephone	Overall
Invited to Participate/Total Sample	567	63	630
Completed[4]	334	9	343
Survey Completion Rate	58.9%	14.3%	54.4%

Weighting Methods

Data were weighted to represent the residential adult population of the United States. The data were weighted by applying a base weight and balancing the demographic profile of the sample to target population parameters.

Base weight

The base weight for this study was the final weight of the ASAPH Panel after the 2024 replenishment.

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[2] Excludes cases removed for quality control reasons.
[3] Excludes cases removed for quality control reasons.
[4] Excludes cases removed for quality control reasons.

Raking

With the base weight applied, the data were weighted to balance the demographic profile of the sample to the target population parameters.

Weighting was accomplished using iterative proportional fitting. This procedure balances each calibration variable to target benchmarks individually and iteratively. The entire set of calibration variables was cycled through until the weights converge across all dimensions. Data were weighted to distributions of sex by age, sex by education, age by education, detailed education, race/ethnicity, census region, home tenure, number of adults per household, civic engagement, population density, party ID[5], voter registration, religious affiliation, and internet use frequency.[6]

The following tables show the data sources used for producing calibration benchmarks.

DIMENSIONS	SOURCE
Sex	2024 Current Population Survey[7]
Age	
Education	
Race	
Hispanic nativity	
Census region	
Home tenure	
Number of adults per household	
Population density	Claritas Pop-Facts Premier 2023[8]
Religion affiliation	Pew Research Center's National Public Opinion Reference Survey (NPORS)[9]
Internet frequency	
Party ID	
Civic engagement[10]	September 2023 CPS Volunteering and Civic Life Supplement[11]
Voter registration	CPS 2022 Voting and Registration Supplement[12]

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[5] The party ID used in weighting was measured at a time matching the latest NPORS data release, not at the time of this survey.

[6] Missing data in the raking variables were imputed using hot decking. Hot deck imputation replaces the missing values of a respondent randomly with another similar respondent without missing data. Hot decking was done using an SPSS macro detailed in 'Goodbye, Listwise Deletion: Presenting Hot Deck Imputation as an Easy and Effective Tool for Handing Missing Data' (Myers, 2011).

[7] Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren, Daniel Backman, Annie Chen, Grace Cooper, Stephanie Richards, Megan Schouweiler, and Michael Westberry. IPUMS CPS: Version 12.0 [dataset]. Minneapolis, MN: IPUMS, 2024. https://doi.org/10.18128/D030.V12.0

[8] https://environicsanalytics.com/data/demographic/pop-facts-premier

[9] https://www.pewresearch.org/methods/fact-sheet/national-public-opinion-reference-survey-npors/ - Feb 1 to Jun 10, 2024.

[10] Civically engaged respondents are defined as those who have volunteered in the past 12 months or who talk to / spend time with their neighbors daily.

[11] https://www.census.gov/programs-surveys/cps/about/supplemental-surveys.html

[12] Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren, Daniel Backman, Annie Chen, Grace Cooper, Stephanie Richards, Megan Schouweiler and Michael Westberry. IPUMS CPS: Version 11.0 [dataset]. Minneapolis, MN: IPUMS, 2023. https://doi.org/10.18128/D030.V11.0

Weights were trimmed at the 4th and 96th percentiles to prevent individual interviews from having too much influence on survey-derived estimates. The tables in the appendix compare unweighted and weighted sample distributions to target population benchmarks.

Effects of Sample Design on Statistical Inference

Post-data collection statistical adjustments require analysis procedures that reflect departures from simple random sampling. SSRS calculates the effects of these design features so that an appropriate adjustment can be incorporated into tests of statistical significance when using these data. The so-called "design effect" or *deff* represents the loss in statistical efficiency that results from a disproportionate sample design and systematic non-response. The total sample design effect for this survey is 2.13.

SSRS calculates the composite design effect for a sample of size n, with each case having a weight, w, as:[13]

$$deff = \frac{n \sum w^2}{(\sum w)^2}$$

The survey's margin of error is the largest 95% confidence interval for any estimated proportion based on the total sample — the one around 50%. For example, the margin of error for the entire sample is ± 3.5 percentage points. This means that in 95 out of every 100 samples drawn using the same methodology, estimated proportions based on the entire sample will be no more than 3.5 percentage points away from their true values in the population. Margins of error for subgroups will be larger. It is important to remember that sampling fluctuations are only one possible source of error in a survey estimate. Other sources, such as respondent selection bias, questionnaire wording, and reporting inaccuracy, may contribute additional error of greater or lesser magnitude.

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[13] Kish, L. (1992). Weighting for Unequal Pi. Journal of Official Statistics, Vol. 8, No.2, 1992, pp. 183-200.

Deliverables

Final deliverables for this study are as follows:

- Weighted SPSS dataset
- Weighted SPSS dataset for Waves 1-25
- Methods Report

About SSRS

SSRS is breaking the mold on what research companies can do. A full-service market and survey research firm, we use the latest data collection best practices and apply cutting-edge survey methodologies backed by insight from our industry-leading team. We have genuine enthusiasm for our work and a shared goal to connect people through research. Our solutions include groundbreaking approaches fit for purpose: the SSRS Opinion Panel, Encipher, SSRS Virtual Insights, the SSRS Text Message panel, and more. Our research areas focus on Health Care and Health Policy, Public Opinion and Policy, Political and Election Polling, Consumer and Lifestyle, and Sports and Entertainment. Visit www.ssrs.com to learn more about how we can work together.

Appendix I: Sample Demographics

Category	Values	Parameter	Unweighted	Weighted
Sex by age	Male 18-24	5.8%	0.6%	2.5%
	Male 25-34	8.7%	6.3%	8.9%
	Male 35-44	8.6%	8.7%	9.2%
	Male 45-54	7.6%	7.1%	8.1%
	Male 55-64	7.7%	8.2%	8.4%
	Male 65+	10.4%	15.1%	11.0%
	Female 18-24	5.7%	1.1%	4.0%
	Female 25-34	8.6%	10.2%	8.8%
	Female 35-44	8.5%	10.5%	9.1%
	Female 45-54	7.8%	9.1%	8.6%
	Female 55-64	8.1%	10.1%	8.6%
	Female 65+	12.4%	12.9%	13.0%
Education	Less than HS	9.3%	2.2%	6.2%
	HS grad	28.7%	19.2%	29.1%
	Some college/Assoc. degree	26.3%	24.1%	26.5%
	College grad +	35.8%	54.5%	38.2%
Sex by education	Male HS grad or less	19.9%	8.5%	18.2%
	Male Some college	12.3%	9.7%	12.2%
	Male College grad +	16.6%	27.8%	17.6%
	Female HS grad or less	18.0%	12.9%	17.1%
	Female Some college	14.0%	14.4%	14.3%
	Female College grad +	19.2%	26.7%	20.7%
Age by education	18-34 HS grad or less	11.5%	4.5%	8.2%
	18-34 Some college	8.5%	3.9%	7.3%
	18-34 College grad +	8.8%	9.9%	8.6%
	35-54 HS grad or less	11.0%	7.2%	11.4%
	35-54 Some college	7.8%	7.9%	8.3%
	35-54 College grad +	13.8%	20.2%	15.1%
	55+ HS grad or less	15.5%	9.8%	15.6%
	55+ Some college	10.0%	12.2%	10.9%
	55+ College grad +	13.2%	24.4%	14.5%
Race/ethnicity	White non-Hisp	60.8%	67.3%	63.1%
	Black non-Hisp	12.1%	8.9%	10.7%
	Hispanic, US Born	8.5%	8.8%	7.6%
	Hispanic, Foreign Born	9.4%	4.3%	9.1%

Category	Values	Parameter	Unweighted	Weighted
	Asian, non-Hisp	6.6%	8.0%	6.9%
	Other non-Hisp	2.7%	2.7%	2.6%
Census region	Northeast	17.2%	19.1%	17.6%
	Midwest	20.5%	19.6%	21.2%
	South	38.7%	36.7%	37.3%
	West	23.7%	24.7%	24.0%
Home Tenure	Owns home	69.3%	54.4%	71.1%
	Rents/Does not own	30.7%	45.6%	28.9%
Number of Adults per Household	1 adult	20.0%	16.5%	20.3%
	2 adults	20.0%	21.2%	18.8%
	3 or more adults	20.0%	21.1%	20.9%
Civic engagement	Not engaged	20.0%	20.3%	19.9%
	Civically engaged	20.0%	20.8%	20.2%
Population density	1 Lowest 20%	41.8%	49.3%	41.7%
	2	43.6%	43.3%	45.0%
	3	14.6%	7.4%	13.3%
	4	74.8%	87.5%	78.1%
	5 Highest 20%	25.2%	12.5%	21.9%
Party ID (panel)	Rep	29.1%	23.0%	29.4%
	Dem	29.3%	35.0%	30.3%
	Ind/Other	41.7%	42.1%	40.3%
Voter Registration	Registered to vote	71.0%	67.3%	70.3%
	Not registered	29.0%	32.7%	29.7%
Religion	Affiliated	16.9%	25.0%	18.4%
	Not Affiliated	51.8%	55.8%	53.1%
Internet Frequency	Almost constantly	31.3%	19.2%	28.5%
	Several times a day	69.3%	69.6%	70.5%
	About once a day or less	30.7%	30.4%	29.5%