Data Analysis

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# Methods

## Survey

Table : Demographic profile (unadjusted) of survey respondents.

| **Characteristic** | **N = 1,1001** |
| --- | --- |
| Sex/Gender |  |
| Male | 529 (48%) |
| Female | 565 (51%) |
| Other | 4 (0.4%) |
| No answer | 2 (0.2%) |
| Age |  |
| 18:24 | 125 (11%) |
| 25:34 | 192 (17%) |
| 35:44 | 204 (19%) |
| 45:54 | 198 (18%) |
| 55:64 | 171 (16%) |
| 65+ | 208 (19%) |
| No answer | 2 (0.2%) |
| Race/Ethnicity |  |
| American Indian/Native American or Alaska Native | 15 (1.4%) |
| Asian | 49 (4.5%) |
| Hispanic or Latino or Spanish Origin of any race | 109 (9.9%) |
| Black or African American | 119 (11%) |
| Native Hawaiian or Other Pacific Islander | 3 (0.3%) |
| White or Caucasian | 723 (66%) |
| Other | 21 (1.9%) |
| Two or More | 57 (5.2%) |
| No answer | 4 (0.4%) |
| Educational |  |
| Some high school | 47 (4.3%) |
| High school graduate or GED | 418 (38%) |
| Associate degree | 178 (16%) |
| Bachelor's degree | 246 (22%) |
| Master's degree | 132 (12%) |
| Doctorate or terminal degree | 28 (2.5%) |
| Other | 40 (3.6%) |
| No answer | 11 (1.0%) |
| 1n (%) | |

## Data Analysis

Prior to analysis, individual survey responses were weighted so that marginal proportions of the survey (Table ) matched national level benchmarks from the 5-year 2021 American Community Survey (ACS) on sex/gender, age group, race/ethnicity, and education level (Table ). Weights were developed by poststratification raking using the American National Election Study (ANES) weighting algorithm implemented in the *anesrake* R package (DeBell and Krosnick 2009; Pasek 2018). Weights on gender were developed by re-coding “female” and “other” responses as “non-male” because the ACS only provides binary response options for sex. Using this approach, responses from both “female” and “other” respondents have the same marginal weight. Kennedy et al. (2022) provide substantial discussion on the treatment of sex and gender in survey adjustment.

Table : Marginal survey and target population proportions and marginal weighted values.

| **Variable** | **Value** | **Unweighted N** | **Unweighted %** | **Target %** | **Weighted N** | **Weighted %** |
| --- | --- | --- | --- | --- | --- | --- |
| Sex/Gender | Male | 529 | 48.1 | 49.0 | 539.1 | 49.0 |
| Not Male | 569 | 51.7 | 51.0 | 560.9 | 51.0 |
| No answer | 2 | 0.2 |  |  |  |
| Age | 18:24 | 125 | 11.4 | 11.9 | 130.6 | 11.9 |
| 25:34 | 192 | 17.5 | 17.7 | 195.1 | 17.7 |
| 35:44 | 204 | 18.5 | 16.6 | 183.1 | 16.6 |
| 45:54 | 198 | 18.0 | 16.3 | 179.2 | 16.3 |
| 55:64 | 171 | 15.5 | 16.8 | 184.4 | 16.8 |
| 65+ | 208 | 18.9 | 20.7 | 227.6 | 20.7 |
| No answer | 2 | 0.2 |  |  |  |
| Race/Ethnicity | American Indian/Native American or Alaska Native | 15 | 1.4 | 0.6 | 6.3 | 0.6 |
| Asian | 49 | 4.5 | 5.8 | 63.9 | 5.8 |
| Hispanic or Latino or Spanish Origin of any race | 109 | 9.9 | 16.4 | 180.7 | 16.4 |
| Black or African American | 119 | 10.8 | 11.9 | 131.0 | 11.9 |
| Native Hawaiian or Other Pacific Islander | 3 | 0.3 | 0.2 | 1.8 | 0.2 |
| White or Caucasian | 723 | 65.7 | 62.4 | 686.3 | 62.4 |
| Other | 21 | 1.9 | 0.3 | 3.6 | 0.3 |
| Two or More | 57 | 5.2 | 2.4 | 26.5 | 2.4 |
| No answer | 4 | 0.4 |  |  |  |
| Education | Some high school | 47 | 4.3 | 7.8 | 85.8 | 7.8 |
| High school graduate or GED | 418 | 38.0 | 49.4 | 543.7 | 49.4 |
| Associate degree | 178 | 16.2 | 8.3 | 91.3 | 8.3 |
| Bachelor's degree | 246 | 22.4 | 19.4 | 213.7 | 19.4 |
| Master's degree | 132 | 12.0 | 8.3 | 91.3 | 8.3 |
| Doctorate or terminal degree | 28 | 2.5 | 1.3 | 14.7 | 1.3 |
| Other | 40 | 3.6 | 5.4 | 59.5 | 5.4 |
| No answer | 11 | 1.0 |  |  |  |

# Results

## Survey responses

Table : Summary of weighted survey responses.

| **Question** | **Response** | **Percent Response, SE** | **Mean Response, SE** |
| --- | --- | --- | --- |
| To your knowledge, has your community been exposed to PFAS? | Yes | 11.6, 1 |  |
| No | 41.7, 1.7 |  |
| Not sure | 46.8, 1.7 |  |
| How would you describe your knowledge about PFAS as an environmental contaminant? | I've never heard of it, and don't know what it is | 44.8, 1.7 |  |
| I've heard of it or seen it somewhere, but don't know what it is | 31.7, 1.6 |  |
| I think I know what it is | 17.2, 1.3 |  |
| I'm confident I know what it is | 6.3, 0.8 |  |
| What percentage of the U.S. population do you think has been exposed to PFAS? |  |  | 53.4, 0.8 |
| How familiar are you with the following items as potential sources of PFAS? |  |  |  |
| Drinking Water | Not at all familiar | 45.6, 1.7 |  |
| Slightly familiar | 20, 1.3 |  |
| Moderately familiar | 16.9, 1.3 |  |
| Very familiar | 9.3, 0.9 |  |
| Extremely familiar | 8.2, 0.9 |  |
| Public waterways near waste disposal sites | Not at all familiar | 45.1, 1.7 |  |
| Slightly familiar | 18.5, 1.3 |  |
| Moderately familiar | 20, 1.3 |  |
| Very familiar | 10.7, 1 |  |
| Extremely familiar | 5.6, 0.7 |  |
| Soils near waste disposal sites | Not at all familiar | 46.5, 1.7 |  |
| Slightly familiar | 19.8, 1.3 |  |
| Moderately familiar | 18.1, 1.3 |  |
| Very familiar | 9.9, 0.9 |  |
| Extremely familiar | 5.7, 0.8 |  |
| Dairy products | Not at all familiar | 50.6, 1.7 |  |
| Slightly familiar | 16.2, 1.2 |  |
| Moderately familiar | 15.8, 1.2 |  |
| Very familiar | 10.2, 1 |  |
| Extremely familiar | 7.2, 0.9 |  |
| Fresh produce | Not at all familiar | 50, 1.7 |  |
| Slightly familiar | 14.4, 1.2 |  |
| Moderately familiar | 16.4, 1.3 |  |
| Very familiar | 12.2, 1.1 |  |
| Extremely familiar | 6.9, 0.8 |  |
| Freshwater fish | Not at all familiar | 48.7, 1.7 |  |
| Slightly familiar | 16.4, 1.2 |  |
| Moderately familiar | 17.9, 1.3 |  |
| Very familiar | 11.4, 1.1 |  |
| Extremely familiar | 5.6, 0.7 |  |
| Seafood | Not at all familiar | 48.4, 1.7 |  |
| Slightly familiar | 15.6, 1.2 |  |
| Moderately familiar | 17.6, 1.3 |  |
| Very familiar | 10.2, 1 |  |
| Extremely familiar | 8.2, 0.9 |  |
| Food packaging | Not at all familiar | 48.3, 1.7 |  |
| Slightly familiar | 16.2, 1.2 |  |
| Moderately familiar | 16.8, 1.3 |  |
| Very familiar | 11.8, 1.1 |  |
| Extremely familiar | 6.9, 0.9 |  |
| Non-stick cookware | Not at all familiar | 46.8, 1.7 |  |
| Slightly familiar | 16.8, 1.2 |  |
| Moderately familiar | 17, 1.3 |  |
| Very familiar | 12.8, 1.1 |  |
| Extremely familiar | 6.6, 0.9 |  |
| Personal hygiene products | Not at all familiar | 46.2, 1.7 |  |
| Slightly familiar | 14.7, 1.2 |  |
| Moderately familiar | 18.8, 1.3 |  |
| Very familiar | 12.5, 1.1 |  |
| Extremely familiar | 7.7, 0.9 |  |
| Household products (fabrics, cleaning products, paints and sealants) | Not at all familiar | 44.8, 1.7 |  |
| Slightly familiar | 15.9, 1.2 |  |
| Moderately familiar | 19.2, 1.3 |  |
| Very familiar | 12.4, 1.1 |  |
| Extremely familiar | 7.8, 0.9 |  |
| Fire extinguising foam | Not at all familiar | 50.7, 1.7 |  |
| Slightly familiar | 14.1, 1.1 |  |
| Moderately familiar | 16.6, 1.3 |  |
| Very familiar | 11.8, 1.1 |  |
| Extremely familiar | 6.8, 0.8 |  |
| Fertilizers from wastewater plants | Not at all familiar | 45.7, 1.7 |  |
| Slightly familiar | 16.8, 1.2 |  |
| Moderately familiar | 17.2, 1.3 |  |
| Very familiar | 12.5, 1.1 |  |
| Extremely familiar | 7.8, 0.9 |  |

## Correlations

## Models

# References

DeBell, Matthew, and Jon A Krosnick. 2009. “Computing Weights for American National Election Study Survey Data.” nes012427. ANES Technical Report Series. Ann Arbor, MI, and Palo Alto, CA: American National Election Studies. <http://www.electionstudies.org/resources/papers/nes012427.pdf>.

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Pasek, Josh. 2018. “Anesrake: ANES Raking Implementation.” <https://CRAN.R-project.org/package=anesrake>.