

N=5,212 adult residents of the Chesapeake Bay Watershed; March 14–June 13, 2017

This document details the methods used to conduct this baseline study of stewardship behaviors and attitudes among a random sample of Chesapeake Bay Watershed residents.

The study was designed and conducted by OpinionWorks LLC of Annapolis, Maryland on behalf of the Chesapeake Bay Program. OpinionWorks’ principal, Steve Raabe, has the lead investigator for this study, working under the direction of the Bay Program’s Citizen Stewardship workgroup. For questions about survey methods or analysis, Steve can be reached at 410-280-2000 or steve@OpinionWorks.com.

Sampling and Interviewing Method

This study was conducted by telephone. A total of 5,212 interviews were completed among adult residents of the Chesapeake Bay watershed between the dates of March 14 and June 13, 2017.

Both wireless and landline telephones were included in the sampling frame. The final survey sample included 43% wireless and 57% landline completions. The full questionnaire was translated into Spanish, and Spanish-language interviews were conducted as needed.

The interviews were conducted by live interviewers, who were supervised, monitored, and coached in opinion research best practices. The calls originated from a market research call center in Lafayette, Colorado, under OpinionWorks’ direction. Interviews were conducted on all days of the week, between 5:00 and 9:00 pm weeknights, 10:00 am and 5:00 pm Saturdays, and 1:00 and 9:00 pm Sundays, Eastern time. Interviews were considered completed if the respondent proceeded through the entire interview, though respondents may have refused to answer individual questions. Interviews where participants terminated prior to completing the survey were thrown out.

Though the watershed’s boundaries often do not match jurisdictional boundaries, counties and independent cities were included in the survey sample if the *preponderance* of their population lives within the Chesapeake Bay Watershed. A list of jurisdictions included in the survey sample is attached to this document.

This was a stratified sample, ensuring that a statistically significant number of interviews was conducted in each of the seven major jurisdictions within the Chesapeake Bay Watershed so that state results could be analyzed with confidence. The 5,212 survey interviews were stratified among the jurisdictions as follows:

State	Sample	Sample %	Pop Estimate*	Pop %	Pop Weight
Delaware	402	7.7%	178,106	1.0%	0.12671716
District of Columbia	801	15.4%	658,893	3.6%	0.235269988
Maryland	1005	19.3%	5,895,053	32.3%	1.677667165
New York	400	7.7%	598,797	3.3%	0.428157897
Pennsylvania	1003	19.2%	3,634,327	19.9%	1.036351953
Virginia	1001	19.2%	6,990,135	38.4%	1.997264684
West Virginia	600	11.5%	267,705	1.5%	0.127611374
Total	5212	100.0%	18,223,016	100.0%	

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Data Weighting

As illustrated in the table above, population weights were applied to the stratified survey sample to bring the jurisdictions into proper balance relative to their share of the population of the Bay’s watershed. Population estimates were based on the United States Census Bureau’s 2014 American Community Survey.

Additionally, demographic weights were applied to each state sub-sample. Though randomization was employed during the sampling process, some demographic groups remained under-represented once interviewing was completed. To correct for this, weights were applied to ensure that each state subsample was as reflective as possible of the demographic makeup of the population. Weights were applied to the following parameters: gender, age, and race and ethnicity. Once again, American Community Survey estimates were used.

The result of this sampling and weighting method is survey samples that are representative both Baywide and at the state level.

Sample Distribution

Following is the Baywide distribution of the survey sample:

	Unweighted Sample Size	Weighted Percentage
Age		
Less than 25	484	14%
24 to 34	900	18%
35 to 44	922	16%
45 to 54	1041	18%
55 to 64	1017	16%
65 to 74	554	10%
75 or older	255	7%
Prefer not to say/Not sure	39	1%
Educational Attainment		
Less than 12 th Grade	204	5%
High School diploma/GED	1161	21%
Some college/Associate’s degree	1354	26%
Four-year degree/Bachelor’s degree	1319	26%
Graduate work/Advanced degree	1121	21%
Prefer not to say/Not sure	53	1%
Children in the Household		
Yes	1896	37%
No	2560	61%
Prefer not to say/Not sure	756	2%
Home Ownership		
Own	3922	73%
Rent	1150	23%
Prefer not to say/Not sure	140	3%

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Housing Type		
Single-family detached	3595	69%
Rowhouse/Townhouse/Duplex	875	17%
Multi-family	649	13%
Prefer not to say/Not sure	93	2%
Community Type		
Urban	1389	23%
Suburban	1437	39%
Small town	873	14%
Rural	1370	22%
Prefer not to say/Not sure/No answer	143	2%
Family Involved in Agriculture		
Yes	780	13%
No	4362	86%
Prefer not to say/Not sure	70	1%
Religious Affiliation		
Catholic	709	15%
Protestant/Other Christian	2642	48%
Jewish	89	2%
Other	303	7%
Not religious	997	20%
Prefer not to say/Not sure/No answer	472	8%
Race or Ethnicity		
White	3530	63%
African-American or Black	1050	19%
Hispanic or Latino	186	8%
Asian	121	5%
Native American	69	1%
Mixed/Multiple (not specified)	97	2%
Others	28	*%
Prefer not to say/Not sure	261	5%
Income		
Less than \$25,000	420	7%
\$25,000 to less than \$50,000	682	13%
\$50,000 to less than \$75,000	824	15%
\$75,000 to less than \$100,000	695	12%
\$100,000 to less than \$150,000	807	16%
\$150,000 or more	805	17%
Prefer not to say/Not sure	979	20%
Gender		
Male	2503	49%
Female	2709	51%