Perceptions of drinking water management and safety: A public survey of U.S. residents

Supplementary Materials

Michael Schramm
Texas A&M AgriLife
michael.schramm@ag.tamu.edu

Allen Berthold
Texas A&M AgriLife

Audrey McCrary
Texas A&M AgriLife

Stephanie deVilleneuve
Texas A&M AgriLife

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Table S1: Survey questions.

Questions	Response Options
What is the source of your household tap water?	☐ Public supply - municipal ☐ Public supply - rural water district ☐ Private supply - private well, river, pond, lake ☐ Private supply - rainwater harvest system ☐ I don't know ☐ Other
What is your main source of drinking water?	☐ Unfiltered tap water ☐ Filtered tap water ☐ Bottled or prepackaged water ☐ Other

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Table S1: Survey questions. (Continued)

Has your primary source of drinking water ever been impacted by any of the following issues? (select all that apply)	☐ Odd taste ☐ Odd smell ☐ Discolored water ☐ Cloudy water ☐ Staining of clothes, teeth, or skin ☐ Saltiness (high salt content) ☐ Hardness or scale buildup (high mineral content) ☐ Corrosion of pipes or water fixtures ☐ Boil water notice ☐ Water shortage ☐ None of the above ☐ Other
On a scale from 0 to 10, how safe do you believe your drinking water is for consumption?	Scale, 0-10
[1]What is your level of trust in the following entities for making sure drinking water is safe for consumption: • Federal government • State government • Local government • Water utility • Landlords, property manager • Household residents	☐ Do not trust at all ☐ Somewhat trust ☐ Moderately trust ☐ Mostly trust ☐ Fully trust
[1]How often do you use the following sources to get information about drinking water quality? • Local news agency • National news agency • Local newspaper • National newspaper • Social media • Radio or podcast • Word of mouth • Email • Government agencies • My water provider • Other	☐ Never ☐ Occasionally ☐ Sometimes ☐ Often ☐ Always

[1] Matrix style question.

Table S2: Unweighted and weighted survey demographics.

Value	Unweighted (n)	Unweighted (%)	Target (%)	Weighted (n)	Weighted (%)
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	NA	NA	NA
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	NA	NA	NA
Race/Ethnicity					
White	723	65.7	62.4	686.3	62.4
Non-white	373	33.9	37.6	413.7	37.6
No answer	4	0.4	NA	NA	NA
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	NA	NA	NA

Table S3: Results of multinomial logistic regression model for primary source of drinking water. Odds-ratios are relative to unfiltered tap water.

	Filtered tap water			Bottled water		
Variable	Odds-Ratio, [95% CI]	t-statistic	p-value	Odds-Ratio, [95% CI]	t-statistic	p-value
(Intercept)	0.7, [0.21, 2.31]	-0.59	0.558	0.5, [0.16, 1.58]	-1.18	0.240
Sex/Gender						
Female	1.06, [0.73, 1.54]	0.32	0.752	1.49, [1.02, 2.17]	2.08	0.038
Other	0.22, [0.01, 4.17]	-1.01	0.311	0.51, [0.04, 6.17]	-0.53	0.595
Age						
25:34	0.95, [0.42, 2.13]	-0.13	0.897	1.22, [0.53, 2.81]	0.47	0.641
35:44	0.52, [0.24, 1.14]	-1.64	0.100	0.96, [0.43, 2.13]	-0.11	0.911
45:54	0.29, [0.13, 0.64]	-3.09	0.002	0.69, [0.32, 1.5]	-0.94	0.348
55:64	0.29, [0.13, 0.65]	-3.02	0.002	0.58, [0.25, 1.33]	-1.28	0.201
65+	0.28, [0.13, 0.62]	-3.15	0.002	0.74, [0.33, 1.69]	-0.71	0.480
Race/Ethnicity						
Non-white	1.17, [0.74, 1.85]	0.68	0.496	1.59, [1.01, 2.52]	1.99	0.046
Education						
High school graduate or GED	2.37, [0.93, 6.03]	1.82	0.069	1.08, [0.5, 2.37]	0.20	0.840
Associate degree	1.46, [0.54, 3.94]	0.75	0.451	0.7, [0.3, 1.64]	-0.82	0.410
Bachelor’s degree	4.31, [1.59, 11.66]	2.88	0.004	1.24, [0.51, 3.01]	0.47	0.642
Master’s degree	3.06, [1.09, 8.59]	2.12	0.034	1.07, [0.41, 2.76]	0.13	0.894
Doctorate or terminal degree	2.81, [0.72, 11]	1.48	0.138	0.63, [0.16, 2.5]	-0.66	0.509
Other	1.23, [0.33, 4.56]	0.32	0.752	1.57, [0.53, 4.67]	0.81	0.417
Home Ownership						
Rent	1.28, [0.86, 1.91]	1.21	0.226	1.64, [1.07, 2.5]	2.29	0.022
Income						
$25,000 - $49,999	1.35, [0.79, 2.3]	1.10	0.271	1.22, [0.72, 2.07]	0.75	0.455
$50,000 - $74,999	2.2, [1.23, 3.93]	2.66	0.008	1.56, [0.86, 2.83]	1.46	0.145
$75,000 - $99,999	1.83, [0.96, 3.5]	1.82	0.068	1.66, [0.84, 3.27]	1.46	0.145
$100,000 - $200,000	1.52, [0.77, 3]	1.20	0.230	0.93, [0.45, 1.9]	-0.20	0.838
> $200,000	2.73, [0.94, 7.97]	1.84	0.066	2.51, [0.78, 8.08]	1.54	0.123
Primary tap water supply						
Public supply - rural water district	1.37, [0.82, 2.28]	1.21	0.227	1.25, [0.74, 2.11]	0.82	0.413
Private supply - well, river, pond, rainwater	0.83, [0.5, 1.39]	-0.70	0.486	0.8, [0.47, 1.38]	-0.79	0.427
I don’t know	1.16, [0.6, 2.26]	0.44	0.663	1.6, [0.85, 3]	1.45	0.147
Taste, odor, color issues						
Yes	1.07, [0.75, 1.52]	0.35	0.723	1.4, [0.96, 2.04]	1.75	0.081

Table S4: Results of proportional odds-models on (1) water safety rating and (2) trust in water utilities. Model coefficients are displayed as odds-ratios relative to the reference level for each variable.

	Water safety rating			Trust in water utility		
	Odds-Ratio, [95% CI]	t-stat	p-value	Odds-Ratio, [95% CI]	t-stat	p-value
Sex/Gender						
Male	-			-		
Female	0.883 [0.683, 1.141]	-0.954	0.340	0.760 [0.593, 0.974]	-2.169	0.030
Other	0.190 [0.014, 2.563]	-1.253	0.210	0.127 [0.051, 0.311]	-4.505	<0.001
Age						
18:24	-			-		
25:34	0.906 [0.550, 1.491]	-0.390	0.697	0.935 [0.586, 1.493]	-0.280	0.779
35:44	0.730 [0.439, 1.215]	-1.213	0.226	0.793 [0.484, 1.300]	-0.920	0.358
45:54	0.528 [0.301, 0.928]	-2.221	0.027	0.457 [0.276, 0.759]	-3.029	0.003
55:64	0.849 [0.485, 1.486]	-0.574	0.566	0.720 [0.429, 1.211]	-1.239	0.216
65+	0.708 [0.416, 1.205]	-1.273	0.203	1.142 [0.675, 1.933]	0.497	0.620
Race/Ethnicity						
White	-			-		
Non-white	0.859 [0.642, 1.148]	-1.029	0.304	0.783 [0.575, 1.067]	-1.550	0.122
Education						
Some high school	-			-		
High school graduate or GED	1.920 [0.926, 3.980]	1.756	0.079	1.243 [0.580, 2.664]	0.560	0.576
Associate degree	1.715 [0.794, 3.702]	1.376	0.169	1.025 [0.461, 2.282]	0.061	0.951
Bachelor's degree	2.185 [1.019, 4.684]	2.012	0.045	1.514 [0.681, 3.363]	1.019	0.308
Master's degree	3.339 [1.487, 7.494]	2.926	0.004	2.001 [0.881, 4.545]	1.660	0.097
Doctorate or terminal degree	2.274 [0.757, 6.829]	1.466	0.143	1.684 [0.685, 4.141]	1.138	0.256
Other	1.814 [0.694, 4.738]	1.217	0.224	0.951 [0.366, 2.472]	-0.103	0.918
Homeownership						
Own	-			-		
Rent	0.689 [0.527, 0.901]	-2.721	0.007	0.676 [0.513, 0.889]	-2.799	0.005
Income						
< $25,000	-			-		
$25,000 - $49,999	0.790 [0.547, 1.141]	-1.259	0.209	1.187 [0.815, 1.728]	0.895	0.371
$50,000 - $74,999	0.864 [0.577, 1.294]	-0.710	0.478	1.075 [0.720, 1.605]	0.354	0.723
$75,000 - $99,999	0.701 [0.444, 1.107]	-1.526	0.127	0.901 [0.574, 1.416]	-0.451	0.652
$100,000 - $200,000	1.529 [0.976, 2.396]	1.855	0.064	1.502 [0.962, 2.344]	1.793	0.073
> $200,000	0.872 [0.400, 1.898]	-0.346	0.729	1.823 [0.895, 3.710]	1.657	0.098
Primary tap water supply						
Public supply - municipal	-			-		
Public supply - rural water district	1.070 [0.768, 1.490]	0.400	0.689	0.808 [0.582, 1.124]	-1.268	0.205
Private supply - well, river, pond, rainwater	0.763 [0.547, 1.064]	-1.597	0.111	1.544 [1.098, 2.173]	2.498	0.013
I don't know	0.882 [0.568, 1.368]	-0.563	0.574	0.992 [0.617, 1.594]	-0.034	0.973
Taste, odor, color issues						
No	-			-		
Yes	0.728 [0.568, 0.932]	-2.516	0.012	0.321 [0.248, 0.415]	-8.695	<0.001