

Adverse Childhood Experiences Module Non-Response: Behavioral Risk Factor Surveillance System, 2019 and 2021

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Appendix Table 1. BRFSS ACEs module questions used in both 2019 and 2021^a

Question	Domain
1. Did you live with anyone who was depressed, mentally ill, or suicidal?	Mental illness in the household
2. Did you live with anyone who was a problem drinker or alcoholic?	Household substance abuse
3. Did you live with anyone who used illegal street drugs or who abused prescription medications?	Household substance abuse
4. Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?	Incarcerated household member
5. Were your parents separated or divorced?	Parents separated or divorced
6. How often did your parents or adults in your home ever slap, hit, kick, punch or beat each other up?	Intimate partner violence
7. Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking. Would you say—	Physical abuse
8. How often did a parent or adult in your home ever swear at you, insult you, or put you down?	Emotional abuse
9. How often did anyone at least 5 years older than you or an adult, ever touch you sexually?	Sexual abuse
10. How often did anyone at least 5 years older than you or an adult, try to make you touch them sexually?	Sexual abuse
11. How often did anyone at least 5 years older than you or an adult, force you to have sex?	Sexual abuse

Abbreviations: BRFSS= Behavioral Risk Factor Surveillance System; ACEs= adverse childhood experiences

^aAlthough the 2021 questionnaire was updated to include childhood neglect items, for this analysis we only analyzed ACEs questions included in both years.

Appendix Table 2. Non-respondents^a by sexual abuse and household substance abuse domains, BRFSS ACEs module, 2019 and 2021^b

Domain	2019		2021		p-value
	N	% (95% CI)	N	% (95% CI)	
Household substance abuse domain	895	0.9 (0.8, 1.0)	1,560	1.8 (1.7, 2.0)	<0.0001
Sexual abuse domain	2,052	2.0 (1.9, 2.2)	2,687	3.2 (3.0, 3.4)	<0.0001

Note: Frequencies are unweighted and percentages are weighted

Abbreviations: BRFSS= Behavioral Risk Factor Surveillance System; ACEs= adverse childhood experiences; CI= confidence interval

^a Non-Respondents were those who did not respond to all questions in the domain

^b2019 states included: Alabama, Delaware, Florida, Indiana, Iowa, Michigan, Mississippi, Missouri, New Mexico, North Dakota, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin, Ohio, Kansas, Oklahoma, New York

2021 states included: Alabama, Arkansas, Iowa, Mississippi, Nevada, New Hampshire, North Dakota, Oregon, South Carolina, Virginia, Wisconsin, Kansas, Maine, New York, Ohio, New Jersey

Appendix Table 3. Sociodemographic characteristics of BRFSS ACEs Module respondents and non-respondents by State^a, 2019 and 2021

Characteristic^b	Non-Respondents^c	
	N, unweighted	%, weighted (95% CI)
<i>Alabama</i>	120	1.3 (1.0, 1.6)
Sex		
Male	48	46.9 (34.8, 59.0)
Female	72	53.1 (41.0, 65.2)
Age Group, years		
18-34	16	26.6 (14.1, 39.1)
35-54	36	37.6 (25.8, 49.5)
≥55	68	35.8 (25.5, 46.1)
Race/Ethnicity		
Non-Hispanic White	68	60.7 (48.5, 72.9)
Non-Hispanic Black	38	33.8 (22.0, 45.7)
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	51	53.1 (41.1, 65.1)
Attended college or graduated from college	67	46.9 (34.9, 58.9)
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	49	56.6 (44.8, 68.5)
Not employed	65	43.5 (31.5, 55.2)
Sexual Orientation ^f		
Straight	--	--
Sexual minority	--	--
Self-Reported Health Status		
Excellent or Very Good	39	29.3 (18.9, 39.8)
Good	51	44.9 (32.6, 57.2)
Fair or Poor	29	25.8 (15.0, 36.6)
<i>Arkansas</i>	83	2.6 (1.7, 3.6)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	13	24.7 (10.0, 39.4)
≥55	59	28.7 (16.4, 41.1)
Race/Ethnicity		
Non-Hispanic White	NA ^h	NA ^h

Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation		
Straight	NA ^h	NA ^h
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>Delaware**</i>	30	0.9 (0.5, 1.3)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	NA ^h	NA ^h
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation		
Straight	NA ^h	NA ^h
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		

Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>Florida**</i>	165	1.3 (1.0, 1.7)
Sex		
Male	68	48.0 (34.5, 61.5)
Female	97	52.0 (38.5, 65.5)
Age Group, years		
18-34	45	35.7 (22.6, 48.8)
35-54	37	24.3 (12.3, 36.2)
≥55	83	40.0 (27.1, 53.0)
Race/Ethnicity		
Non-Hispanic White	91	38.1 (26.0, 50.2)
Non-Hispanic Black	27	30.9 (17.1, 44.8)
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	81	62.2 (49.6, 74.8)
Attended college or graduated from college	81	37.8 (25.2, 50.4)
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	64	41.4 (28.0, 54.8)
Not employed	96	58.6 (45.2, 72.0)
Sexual Orientation		
Straight	48	93.9 (84.8, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	70	48.5 (34.9, 62.0)
Good	54	25.7 (14.5, 37.0)
Fair or Poor	40	25.8 (14.9, 36.7)
<i>Indiana**</i>	69	0.9 (0.6, 1.1)
Sex		
Male	33	60.1 (46.2, 74.0)
Female	36	39.9 (26.0, 53.8)
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	54	80.4 (67.4, 93.3)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h

Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation ^f		
Straight	--	--
Sexual minority	--	--
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	20	27.1 (14.6, 39.6)
<i>Iowa*</i>	107	0.7 (0.5, 0.8)
Sex		
Male	60	55.7 (44.7, 66.7)
Female	47	44.3 (33.3, 55.3)
Age Group, years		
18-34	22	26.4 (16.2, 36.7)
35-54	37	43.8 (32.6, 55.0)
≥55	48	29.8 (20.4, 39.2)
Race/Ethnicity		
Non-Hispanic White	80	81.8 (72.3, 91.2)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	46	46.7 (35.3, 58.2)
Attended college or graduated from college	57	53.3 (41.8, 64.7)
Income		
<\$50,000	34	40.1 (26.4, 53.1)
\$50,000+	35	59.9 (46.2, 73.6)
Employment ^e		
Employed	60	69.1 (58.9, 79.3)
Not employed	42	30.9 (20.7, 41.1)
Sexual Orientation		
Straight	87	97.1 (93.3, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	43	44.1 (33.0, 55.2)
Good	40	38.2 (27.3, 49.1)
Fair or Poor	23	17.6 (9.5, 25.7)

<i>Kansas*</i>	124	1.2 (1.0, 1.5)
Sex		
Male	68	61.2 (50.6, 71.7)
Female	56	38.8 (28.3, 49.4)
Age Group, years		
18-34	26	30.3 (19.8, 40.9)
35-54	51	42.0 (30.5, 53.5)
≥55	47	27.7 (18.6, 36.8)
Race/Ethnicity		
Non-Hispanic White	91	67.5 (55.1, 79.9)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	10	19.1 (6.8, 31.5)
Other ^d	NA ^h	NA ^h
Education		
High school or less	36	42.1 (29.9, 54.2)
Attended college or graduated from college	84	57.9 (45.8, 70.1)
Income		
<\$50,000	43	55.3 (41.7, 68.9)
\$50,000+	41	44.7 (31.1, 58.3)
Employment ^e		
Employed	82	66.8 (56.0, 77.6)
Not employed	39	33.2 (22.4, 44.0)
Sexual Orientation		
Straight	95	96.1 (91.8, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	53	46.4 (35.0, 57.9)
Good	41	27.6 (18.4, 36.8)
Fair or Poor	30	26.0 (16.1, 35.9)
<i>Maine***</i>	277	5.6 (4.7, 6.6)
Sex		
Male	123	48.2 (39.3, 57.1)
Female	154	51.5 (42.9, 60.7)
Age Group, years		
18-34	28	24.3 (14.6, 34.0)
35-54	74	30.0 (21.9, 38.1)
≥55	175	45.7 (37.1, 54.3)
Race/Ethnicity		
Non-Hispanic White	252	92.5 (86.8, 98.2)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	97	44.9 (35.6, 54.2)
Attended college or graduated from college	174	55.1 (45.8, 64.4)

Income		
<\$50,000	101	51.9 (40.3, 63.6)
\$50,000+	75	48.1 (36.4, 59.7)
Employment ^e		
Employed	118	52.3 (43.2, 61.4)
Not employed	152	47.7 (38.6, 56.8)
Sexual Orientation ^f		
Straight	--	--
Sexual minority	--	--
Self-Reported Health Status		
Excellent or Very Good	135	44.2 (35.5, 52.9)
Good	99	39.4 (30.3, 48.5)
Fair or Poor	42	16.4 (9.7, 23.1)
<i>Michigan**</i>	72	0.9 (0.6, 1.2)
Sex		
Male	31	52.7 (38.4, 67.1)
Female	41	47.3 (33.0, 61.7)
Age Group, years		
18-34	14	32.9 (18.4, 47.3)
35-54	15	21.7 (10.2, 33.3)
≥55	43	45.4 (31.1, 59.7)
Race/Ethnicity		
Non-Hispanic White	47	72.4 (57.9, 87.0)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	32	54.2 (39.6, 68.8)
Attended college or graduated from college	37	45.8 (31.2, 60.4)
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation ^f		
Straight	--	--
Sexual minority	--	--
Self-Reported Health Status		
Excellent or Very Good	36	53.8 (39.2, 68.4)
Good	18	29.0 (15.0, 43.0)
Fair or Poor	17	17.2 (7.6, 26.8)
<i>Mississippi*</i>	91	1.3 (0.9, 1.7)
Sex		
Male	40	59.9 (45.9, 73.8)

Female	51	40.1 (26.2, 54.1)
Age Group, years		
18-34	21	31.4 (16.6, 46.2)
35-54	NA ^h	NA ^h
≥55	43	33.6 (20.7, 45.6)
Race/Ethnicity		
Non-Hispanic White	39	53.7 (39.3, 68.2)
Non-Hispanic Black	40	41.5 (27.4, 55.6)
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	41	60.2 (46.2, 74.3)
Attended college or graduated from college	44	39.8 (25.7, 53.8)
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	31	57.1 (42.2, 72.0)
Not employed	51	42.9 (28.0, 57.8)
Sexual Orientation		
Straight	42	91.4 (80.0, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	25	25.1 (13.9, 36.3)
Good	NA ^h	NA ^h
Fair or Poor	30	25.1 (14.0, 36.1)
Missouri**	52	1.0 (0.7, 1.4)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	NA ^h	NA ^h
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h

Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation ^f		
Straight	---	---
Sexual minority	---	---
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>Nevada***</i>	198	8.1 (6.5, 9.6)
Sex		
Male	99	50.8 (40.9, 60.6)
Female	99	49.3 (39.4, 59.1)
Age Group, years		
18-34	30	23.0 (14.4, 31.7)
35-54	47	29.7 (20.6, 38.9)
≥55	121	47.6 (37.6, 57.0)
Race/Ethnicity		
Non-Hispanic White	155	62.0 (51.8, 72.3)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	23	23.5 (14.3, 32.6)
Other ^d	NA ^h	NA ^h
Education		
High school or less	68	47.6 (37.7, 57.6)
Attended college or graduated from college	128	52.4 (42.4, 62.4)
Income		
<\$50,000	109	66.9 (57.0, 76.7)
\$50,000+	64	33.1 (23.3, 43.0)
Employment ^e		
Employed	83	49.4 (39.7, 59.3)
Not employed	114	50.5 (40.7, 60.4)
Sexual Orientation		
Straight	184	97.1 (93.9, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	93	51.1 (41.2, 60.9)
Good	58	30.2 (20.9, 39.5)
Fair or Poor	46	18.8 (11.7, 25.8)
<i>New Hampshire***</i>	103	2.4 (1.8, 3.0)
Sex		
Male	57	61.6 (49.3, 73.9)
Female	46	38.4 (26.1, 50.7)
Age Group, years		
18-34	10	20.8 (8.4, 33.3)

35-54	35	44.3 (31.0, 57.7)
≥55	58	34.8 (22.1, 47.5)
Race/Ethnicity		
Non-Hispanic White	80	87.6 (78.3, 96.9)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	34	38.5 (25.2, 51.8)
Attended college or graduated from college	64	61.5 (48.3, 74.8)
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	55	68.4 (55.3, 81.4)
Not employed	43	31.6 (18.6, 44.7)
Sexual Orientation ^f		
Straight	---	---
Sexual minority	---	---
Self-Reported Health Status		
Excellent or Very Good	53	54.4 (40.8, 68.1)
Good	29	26.5 (15.6, 37.3)
Fair or Poor	NA ^h	NA ^h
<i>New Jersey***</i>	39	1.9 (1.2, 2.7)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	NA ^h	NA ^h
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	13	33.8 (45.6, 52.0)

Sexual Orientation		
Straight	29	95.0 (86.6, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>New Mexico**</i>	31	0.8 (0.4, 1.1)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	12	18.0 (4.2, 31.9)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	19	90.1 (77.8, 100.0)
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation ^f		
Straight	---	---
Sexual minority	---	---
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>New York*</i>	260	2.1 (1.7, 2.5)
Sex		
Male	125	47.8 (37.7, 57.8)
Female	135	52.2 (42.2, 62.3)
Age Group, years		
18-34	53	32.7 (22.6, 42.8)
35-54	79	32.9 (24.0, 41.8)
≥55	128	34.0 (24.7, 44.1)
Race/Ethnicity		

Non-Hispanic White	157	54.0 (43.5, 64.5)
Non-Hispanic Black	33	17.8 (9.7, 26.0)
Hispanic	23	10.9 (5.3, 16.5)
Other ^d	26	17.3 (9.1, 25.5)
Education		
High school or less	98	40.6 (30.1, 51.1)
Attended college or graduated from college	152	59.4 (48.9, 69.9)
Income		
<\$50,000	74	54.7 (41.7, 67.7)
\$50,000+	68	45.3 (32.3, 58.3)
Employment ^e		
Employed	113	47.7 (37.1, 58.4)
Not employed	120	52.3 (41.6, 62.9)
Sexual Orientation ^g		
Straight	33	86.1 (72.0, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	117	46.7 (36.4, 57.0)
Good	91	33.9 (24.6, 43.3)
Fair or Poor	47	19.4 (11.0, 27.8)
<i>North Dakota*</i>	159	1.7 (1.4, 2.1)
Sex		
Male	89	58.4 (48.1, 68.6)
Female	70	41.6 (31.4, 51.9)
Age Group, years		
18-34	26	36.0 (25.0, 47.3)
35-54	44	29.8 (20.9, 38.9)
≥55	89	34.1 (25.6, 42.7)
Race/Ethnicity		
Non-Hispanic White	129	83.1 (73.7, 92.4)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	59	41.8 (31.2, 52.3)
Attended college or graduated from college	93	58.2 (47.7, 68.8)
Income		
<\$50,000	53	59.2 (46.0, 73.3)
\$50,000+	40	40.8 (27.7, 54.0)
Employment ^e		
Employed	91	58.4 (47.9, 68.8)
Not employed	71	41.7 (31.2, 52.1)
Sexual Orientation ^f		
Straight	---	---
Sexual minority	---	---

Self-Reported Health Status		
Excellent or Very Good	85	52.2 (41.9, 62.6)
Good	44	28.5 (19.0, 38.0)
Fair or Poor	29	19.3 (10.3, 28.2)
<i>Ohio*</i>	212	1.8 (1.4, 2.1)
Sex		
Male	109	55.0 (45.0, 65.0)
Female	103	45.0 (35.2, 55.0)
Age Group, years		
18-34	47	39.0 (28.6, 49.4)
35-54	73	35.9 (26.7, 45.1)
≥55	92	25.2 (18.0, 32.3)
Race/Ethnicity		
Non-Hispanic White	167	76.0 (66.4, 85.6)
Non-Hispanic Black	18	14.5 (6.2, 22.8)
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	87	41.8 (31.4, 52.2)
Attended college or graduated from college	117	58.2 (47.8, 68.6)
Income		
<\$50,000	89	48.2 (36.6, 59.7)
\$50,000+	72	51.8 (40.3, 63.4)
Employment ^e		
Employed	96	56.7 (46.1, 66.4)
Not employed	110	43.7 (33.6, 53.9)
Sexual Orientation		
Straight	57	89.7 (79.5, 98.9)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	92	47.0 (36.9, 57.0)
Good	67	34.3 (25.2, 43.4)
Fair or Poor	53	18.8 (11.6, 25.9)
<i>Oklahoma**</i>	106	4.3 (3.2, 5.3)
Sex		
Male	45	46.7 (34.1, 59.3)
Female	64	53.3 (40.7, 65.9)
Age Group, years		
18-34	NA ^h	NA ^h
35-54	34	37.7 (26.1, 49.3)
≥55	64	41.2 (29.8, 52.6)
Race/Ethnicity		
Non-Hispanic White	69	64.0 (52.2, 75.8)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h

Other ^d	20	18.5 (8.7, 28.3)
Education		
High school or less	49	54.9 (42.8, 67.0)
Attended college or graduated from college	57	45.1 (33.0, 57.2)
Income		
<\$50,000	53	64.3 (52.2, 76.3)
\$50,000+	30	35.7 (23.7, 47.8)
Employment ^e		
Employed	39	37.9 (26.4, 49.3)
Not employed	67	62.1 (50.7, 73.6)
Sexual Orientation		
Straight	99	99.5 (98.6, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	39	39.9 (27.2, 52.5)
Good	33	29.1 (18.0, 40.2)
Fair or Poor	34	31.0 (20.3, 41.8)
<i>Oregon***</i>	170	4.2 (3.4, 5.0)
Sex		
Male	88	51.8 (42.1, 61.6)
Female	82	51.8 (42.1, 61.6)
Age Group, years		
18-34	30	25.2 (16.4, 33.9)
35-54	58	31.2 (22.5, 39.8)
≥55	82	43.7 (34.0, 53.4)
Race/Ethnicity		
Non-Hispanic White	122	70.7 (60.8, 80.6)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	23	18.8 (10.4, 27.2)
Other ^d	NA ^h	NA ^h
Education		
High school or less	49	36.8 (26.7, 46.9)
Attended college or graduated from college	115	63.2 (53.1, 73.3)
Income		
<\$50,000	46	60.3 (47.1, 73.5)
\$50,000+	30	39.7 (26.5, 52.9)
Employment ^e		
Employed	87	54.1 (44.1, 64.0)
Not employed	76	45.9 (36.0, 55.9)
Sexual Orientation ^f		
Straight	---	---
Sexual minority	---	---
Self-Reported Health Status		
Excellent or Very Good	87	50.7 (41.0, 60.5)
Good	60	37.3 (27.7, 47.0)

Fair or Poor	23	12.0 (6.5, 17.4)
<i>Pennsylvania**</i>	40	0.8 (0.5, 1.1)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	NA ^h	NA ^h
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation ^f		
Straight	---	---
Sexual minority	---	---
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>Rhode Island**</i>	48	1.1 (0.6, 1.6)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	NA ^h	NA ^h
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h

Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation		
Straight	29	89.7 (71.8, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>South Carolina*</i>	157	1.1 (0.9, 1.4)
Sex		
Male	88	65.6 (56.0, 72.2)
Female	69	34.4 (24.8, 44.0)
Age Group, years		
18-34	15	22.1 (11.1, 33.2)
35-54	53	41.7 (31.1, 52.3)
≥55	89	36.2 (26.2, 46.2)
Race/Ethnicity		
Non-Hispanic White	94	63.8 (52.3, 75.4)
Non-Hispanic Black	29	23.9 (13.1, 34.8)
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	57	43.4 (32.0, 54.8)
Attended college or graduated from college	94	56.6 (45.2, 68.0)
Income		
<\$50,000	53	58.3 (44.7, 71.9)
\$50,000+	37	41.7 (28.1, 55.3)
Employment ^e		
Employed	64	57.3 (46.2, 68.4)
Not employed	82	42.7 (31.6, 53.9)
Sexual Orientation ^g		
Straight	16	100.0 (100.0, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	69	44.4 (33.5, 55.4)
Good	59	36.5 (25.8, 47.2)
Fair or Poor	28	19.1 (10.5, 27.6)
<i>Tennessee**</i>	46	1.0 (0.6, 1.4)
Sex		

Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	NA ^h	NA ^h
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation		
Straight	13	88.7 (73.1, 100.0)
Sexual minority	NA ^h	v
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>Virginia*</i>	272	1.7 (1.4, 2.0)
Sex		
Male	113	47.9 (39.7, 56.2)
Female	159	52.1 (43.8, 60.3)
Age Group, years		
18-34	40	26.6 (18.2, 34.9)
35-54	87	36.4 (28.3, 44.4)
≥55	145	37.1 (29.9, 44.3)
Race/Ethnicity		
Non-Hispanic White	141	48.7 (39.9, 57.6)
Non-Hispanic Black	51	33.2 (24.2, 42.3)
Hispanic	21	14.5 (7.0, 22.0)
Other ^d	NA ^h	NA ^h
Education		
High school or less	84	41.8 (33.0, 50.5)
Attended college or graduated from college	153	58.2 (49.5, 67.0)
Income		
<\$50,000	75	45.6 (34.8, 56.4)

\$50,000+	77	54.4 (43.0, 65.2)
Employment ^e		
Employed	127	60.7 (52.0, 69.5)
Not employed	101	39.3 (30.5, 48.1)
Sexual Orientation		
Straight	72	94.2 (88.2, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	127	48.0 (39.7, 56.4)
Good	86	30.9 (23.5, 38.4)
Fair or Poor	54	21.1 (14.2, 27.9)
<i>West Virginia**</i>	25	0.5 (0.2, 0.7)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		
18-34	NA ^h	NA ^h
35-54	NA ^h	NA ^h
≥55	NA ^h	NA ^h
Race/Ethnicity		
Non-Hispanic White	22	98.3 (94.9, 100.0)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	NA ^h	NA ^h
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	NA ^h	NA ^h
Not employed	NA ^h	NA ^h
Sexual Orientation		
Straight	13	100.0 (100.0, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	NA ^h	NA ^h
Fair or Poor	NA ^h	NA ^h
<i>Wisconsin*</i>	81	1.0 (0.7, 1.4)
Sex		
Male	NA ^h	NA ^h
Female	NA ^h	NA ^h
Age Group, years		

18-34	13	23.7 (10.2, 37.1)
35-54	27	38.2 (23.5, 52.8)
≥55	41	38.2 (23.8, 52.5)
Race/Ethnicity		
Non-Hispanic White	62	75.3 (60.4, 90.1)
Non-Hispanic Black	NA ^h	NA ^h
Hispanic	NA ^h	NA ^h
Other ^d	NA ^h	NA ^h
Education		
High school or less	NA ^h	NA ^h
Attended college or graduated from college	50	63.3 (49.0, 77.7)
Income		
<\$50,000	NA ^h	NA ^h
\$50,000+	NA ^h	NA ^h
Employment ^e		
Employed	39	57.4 (42.8, 72.0)
Not employed	NA ^h	NA ^h
Sexual Orientation		
Straight	58	89.7 (77.6, 100.0)
Sexual minority	NA ^h	NA ^h
Self-Reported Health Status		
Excellent or Very Good	NA ^h	NA ^h
Good	29	28.7 (16.4, 41.0)
Fair or Poor	19	24.9 (11.4, 38.3)

Abbreviations: BRFSS= Behavioral Risk Factor Surveillance System; ACEs= adverse childhood experiences; CI= confidence interval

Bolded values indicate statistically significant differences between non-responders and responders (p<0.05).

*ACEs module included in 2019 and 2021

**ACEs module included in 2019 only

***ACEs module included in 2021 only

^a2019 states included: Alabama, Delaware, Florida, Indiana, Iowa, Michigan, Mississippi, Missouri, New Mexico, North Dakota, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin, Ohio, Kansas, Oklahoma, New York

2021 states included: Alabama, Arkansas, Iowa, Mississippi, Nevada, New Hampshire, North Dakota, Oregon, South Carolina, Virginia, Wisconsin, Kansas, Maine, New York, Ohio, New Jersey

^bSome categories for different characteristics were collapsed for state analysis due to small sample sizes

^cACEs Module Non-Respondents were those who skipped questions for four or more ACE domains

^dIncludes those who self-reported race as Multiracial, American Indian or Alaskan Native, Asian, Native Hawaiian or Other Pacific Islander, and other

^eEmployed includes those who are employed for wages or self-employed; not employed includes those who were out of work, a homemaker, student, retired, or unable to work

^fDid not include the optional Sexual Orientation and Gender Identity Module

^gDid not include the optional Sexual Orientation and Gender Identity Module in 2021

^hUnstable estimate (unweighted numerator is less than 10, absolute CI width $\geq 30\%$, or the absolute CI width $>5\%$ and $<30\%$ and the relative CI width $>130\%$) estimate is suppressed.

Appendix Table 4. Percent of respondents who broke off at BRFSS ACEs module question, 2019 and 2021^a

ACE Question	% (95% CI)
Did you live with anyone who was depressed, mentally ill, or suicidal? ^b	---
Did you live with anyone who was a problem drinker or alcoholic?	0.02 (0.02, 0.03)
Did you live with anyone who used illegal street drugs or who abused prescription medications?	0.01 (0.00, 0.01)
Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?	NA ^c
Were your parents separated or divorced?	0.02 (0.01, 0.03)
How often did your parents or adults in your home ever slap, hit, kick, punch or beat each other up?	0.13 (0.09, 0.18)
Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking. Would you say—	0.04 (0.03, 0.05)
How often did a parent or adult in your home ever swear at you, insult you, or put you down?	0.04 (0.02, 0.05)
How often did anyone at least 5 years older than you or an adult, ever touch you sexually?	0.50 (0.43, 0.56)
How often did anyone at least 5 years older than you or an adult, try to make you touch them sexually?	0.09 (0.07, 0.12)
How often did anyone at least 5 years older than you or an adult, force you to have sex?	0.20 (0.16, 0.24)

Note: Frequencies are unweighted and percentages are weighted

Abbreviations: BRFSS= Behavioral Risk Factor Surveillance System; ACEs= adverse childhood experiences; CI= confidence interval

^a2019 states included: Alabama, Delaware, Florida, Indiana, Iowa, Michigan, Mississippi, Missouri, New Mexico, North Dakota, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin, Ohio, Kansas, Oklahoma, New York

2021 states included: Alabama, Arkansas, Iowa, Mississippi, Nevada, New Hampshire, North Dakota, Oregon, South Carolina, Virginia, Wisconsin, Kansas, Maine, New York, Ohio, New Jersey

^bThis was the first question of the module, so calculate break-off at this question was unable to be calculated because the preceding question varies across states

^cUnstable estimate (unweighted numerator is less than 10, absolute CI width $\geq 30\%$, or the absolute CI width $>5\%$ and $<30\%$ and the relative CI width $>130\%$)