

Potential Effects of Adverse Childhood Experiences on School Engagement in Youth: A Dominance Analysis

Additional File 2: Unadjusted bivariate analyses for three model outcomes (repeated grades, does all required homework, and cares about doing well in school) by demographic, ACE, and other covariables for the National Survey of Children’s Health 2018-2019.

Variables	Total by Category n=39,347 * % (95% CI)**	Outcome 1: Repeated Grade		p-value	Outcome 2: Does All Required Homework		p-value	Outcome 3: Cares About Doing Well in School		p-value
		Grade Repeated by Category n=2,201* 6.3% (95% CI)**	Grade Not Repeated by Category n= 37,146* 93.7% (95% CI)**		Does All Homework by Category n=34,828 * 88.7% (95% CI)**	Does Not Do All Homework by Category n=4,519 * 11.3% (95% CI)**		Cares About School by Category n= 34,851* 89.1% (95% CI)**	Does Not Care About School by Category n= 4,496 * 10.9% (95% CI)**	
Sex										
Male	50.9 (49.8, 52.0)	64.2 (59.5, 68.7)	50.0 (48.9, 51.2)	<0.0001	48.9 (47.8, 50.1)	66.7 (63.8, 69.6)	<0.0001	48.8 (47.7, 50.0)	68.2 (65.3, 70.9)	<0.0001
Female	49.1 (48.0, 50.2)	35.8 (31.3, 40.5)	50.0 (48.9, 51.1)		51.1 (49.9, 52.3)	33.3 (30.4, 36.2)		51.2 (50.0, 52.4)	31.8 (29.1, 34.7)	
Age										
6-9	32.5 (31.5, 33.6)	19.1 (16.0, 22.7)	33.4 (32.4, 34.5)	<0.0001	33.9 (32.8, 35.0)	21.9 (19.3, 24.8)	<0.0001	33.2 (32.1, 34.3)	26.8 (24.1, 29.6)	<0.0001
10-13	34.2 (33.2, 35.2)	34.9 (30.6, 39.5)	34.1 (33.1, 35.2)		34.1 (33.0, 35.2)	34.6 (31.8, 37.5)		34.2 (33.1, 35.3)	34.4 (31.6, 37.2)	

14-17	33.3 (32.3, 34.3)	46.1 (41.3, 50.9)	32.5 (31.5, 33.5)	32.0 (31.0, 33.1)	43.5 (40.5, 46.5)	32.6 (31.6, 33.7)	38.9 (36.0, 41.8)	
Race/Ethnicity								
White	51.4 (50.3, 52.5)	43.1 (38.7, 47.5)	51.9 (50.8, 53.0)	51.7 (50.6, 52.9)	48.6 (45.7, 51.6)	51.4 (50.2, 52.5)	51.7 (48.6, 54.7)	
Black	12.8 (12.1, 13.6)	17.9 (14.8, 21.4)	12.5 (11.7, 13.3)	12.1 (11.3, 12.9)	18.9 (16.4, 21.6)	12.5 (11.7, 13.3)	15.5 (13.3, 18.0)	
Hispanic	25.2 (24.1, 26.5)	30.5 (25.3, 36.1)	24.9 (23.7, 26.1)	25.4 (24.1, 26.7)	24.1 (21.0, 27.5)	25.5 (24.2, 26.8)	23.3 (20.2, 26.7)	0.0036
Other	5.1 (4.7, 5.5)	4.8 (3.4, 6.8)	5.1 (4.7, 5.5)	5.0 (4.6, 5.4)	5.6 (4.5, 6.8)	5.0 (4.5, 5.4)	6.0 (4.9, 7.2)	
>=2 or more races	5.5 (5.1, 5.9)	3.8 (2.6, 5.4)	5.6 (5.2, 6.1)	5.8 (5.4, 6.3)	2.8 (3.1, 3.7)	5.7 (5.3, 6.2)	3.6 (2.6, 4.9)	
Minimum Parental Education								
Less than high school	17.9 (16.7, 19.1)	32.4 (27.4, 37.8)	16.9 (15.8, 18.1)	17.4 (16.2, 18.7)	21.8 (18.8, 25.1)	17.5 (16.3, 18.8)	20.7 (17.8, 24.0)	
HS/GED/Vocational	29.2 (28.2, 30.2)	36.3 (32.0, 40.8)	28.7 (27.7, 29.7)	28.6 (27.6, 29.7)	33.9 (31.1, 36.7)	28.4 (27.4, 29.5)	35.6 (32.8, 38.5)	
Some college	22.6 (21.8, 23.4)	17.6 (15.2, 20.3)	22.9 (22.1, 23.7)	22.5 (21.6, 23.3)	23.6 (21.4, 25.9)	22.4 (21.6, 23.3)	24.0 (21.8, 26.3)	<0.0001
Bachelor	21.2 (20.5, 22.0)	10.5 (8.5, 12.9)	21.9 (21.2, 22.7)	22.0 (21.2, 22.8)	15.3 (13.4, 17.4)	22.0 (21.2, 22.8)	14.7 (13.1, 16.5)	
Masters or greater	9.1 (8.6, 9.7)	3.2 (2.4, 4.4)	9.5 (9.0, 10.1)	9.6 (9.1, 10.2)	5.5 (4.4, 6.9)	9.6 (9.1, 10.2)	5.1 (4.2, 6.2)	

Parent or guardian death	No	71.2 (70.2, 72.2)	59.7 (55.3, 64.1)	72.0 (71.0, 73.0)	<0.0001	73.3 (72.3, 74.3)	55.0 (52.0, 58.0)	<0.0001	73.1 (72.1, 74.1)	55.7 (52.8, 58.7)	<0.0001
	Yes	28.8 (27.8, 29.8)	40.3 (36.0, 44.7)	28.0 (27.0, 29.0)		26.7 (25.7, 27.7)	45.0 (42.1, 48.0)		26.9 (25.9, 27.9)	44.3 (41.3, 47.3)	
Parent or guardian time in jail	No	96.1 (95.7, 96.5)	91.5 (87.9, 94.0)	96.5 (96.1, 96.8)	<0.0001	96.4 (96.0, 96.8)	94.0 (92.6, 95.2)	<0.0001	96.4 (96.0, 96.8)	94.2 (92.8, 95.3)	0.0001
	Yes	3.9 (3.5, 4.3)	8.6 (6.0, 12.1)	3.6 (3.2, 3.9)		3.6 (3.2, 4.0)	6.0 (4.8, 7.4)		3.6 (3.2, 4.0)	5.8 (4.7, 7.2)	
Adults slap, hit, kick, punch others	No	91.3 (90.7, 91.9)	80.7 (77.1, 83.8)	92.0 (91.5, 92.6)	<0.0001	92.6 (92.0, 93.1)	81.5 (79.0, 93.7)	<0.0001	92.4 (91.8, 92.9)	82.8 (80.4, 85.0)	<0.0001
	Yes	8.7 (8.1, 9.3)	19.3 (16.2, 22.9)	8.0 (7.4, 8.6)		7.4 (6.9, 8.0)	18.5 (16.3, 21.0)		7.6 (7.1, 8.2)	17.2 (15.0, 19.6)	
Victim of Violence	No	93.2 (92.7, 93.8)	85.3 (81.8, 88.2)	93.8 (93.2, 94.3)	<0.0001	94.3 (93.7, 94.8)	85.0 (82.6, 87.1)	<0.0001	94.1 (93.5, 94.6)	86.3 (84.1, 88.2)	<0.0001
	Yes	6.8 (6.2, 7.3)	14.7 (11.8, 18.2)	6.2 (5.7, 6.8)		5.7 (5.2, 6.3)	15.0 (12.9, 17.4)		5.9 (5.4, 6.5)	13.7 (11.8, 15.9)	
	No	94.8 (94.3, 95.3)	89.6 (86.9, 91.8)	95.1 (94.6, 95.6)	<0.0001	95.8 (95.3, 96.3)	86.7 (84.4, 88.6)	<0.0001	95.7 (95.1, 96.1)	87.6 (85.4, 89.6)	<0.0001

Lived with mentally ill	Yes	5.2 (4.7, 5.7)	10.4 (8.2, 13.1)	4.9 (4.4, 5.4)		4.2 (3.7, 4.7)	13.3 (11.4, 15.6)	4.4 (3.9, 4.9)	12.4 (10.4, 14.7)	
	No	90.4 (89.7, 91.0)	82.0 (78.0, 85.5)	90.9 (90.3, 91.5)	<0.0001	91.8 (91.1, 92.4)	79.4 (77.1, 81.5)	91.6 (90.9, 92.2)	80.4 (78.1, 82.6)	<0.0001
Lived with person with alcohol/drug problem	Yes	9.6 (9.0, 10.3)	18.0 (14.5, 22.0)	9.1 (8.5, 9.7)		8.2 (7.6, 8.9)	20.6 (18.5, 22.9)	8.4 (7.8, 9.1)	19.6 (17.4, 21.9)	
	No	89.8 (89.1, 90.4)	82.5 (78.2, 86.1)	90.2 (89.6, 90.9)	<0.0001	90.9 (90.2, 91.5)	80.9 (78.8, 83.0)	90.9 (90.2, 91.5)	80.7 (78.3, 82.8)	<0.0001
	Yes	10.2 (9.6, 10.9)	17.5 (13.9, 21.8)	9.8 (9.1, 10.4)		9.1 (8.5, 9.8)	19.1 (17.1, 21.3)	9.1 (8.5, 9.8)	19.3 (17.2, 21.7)	

*Unweighted NSCH population size

**Weighted percentage and 95% confidence interval