

# Adverse Childhood Experiences in South Carolina Veterans:

## Prevalence and Demographic Characteristics

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Children's Trust of South Carolina has produced a series of research briefs on adverse childhood experiences (ACEs). Research brief topics include the data collection process, an overview of ACEs, the prevalence of ACEs in various populations, and the relationship between ACEs and health and social outcomes.

In 2014, Children's Trust partnered with South Carolina's Department of Health and Environmental Control (SC DHEC) to collect data from South Carolina adults on exposure to ACEs. This partnership developed because, as the state leader in prevention of child abuse and neglect, Children's Trust values data-driven decision-making to improve the environments of vulnerable children and families. Currently, ACE data is being collected annually via the Behavioral Risk Factor Surveillance System (BRFSS; Centers for Disease Control and Prevention [CDC], 2014a).

Children's Trust developed a series of research briefs to outline the ACE data collection process (Morse & Stropolis, 2016a) and to highlight important findings from the data collected. Tenth in the series, this brief reports the demographics of South Carolina veterans<sup>4</sup> who reported ACE. First, an overview of South Carolina veterans' demographic characteristics is provided. Then, ACE prevalence in South Carolina veterans is reported. Finally, demographic characteristics of South Carolina veterans are reported by ACE prevalence (*yes/no*), cumulative ACEs (i.e., 0, 1, 2, 3, 4+), and ACE type (abuse: physical, emotional, sexual; household dysfunction: household mental illness, substance use, domestic violence, incarceration, parental separation/divorce). We conclude with implications for screening and assessment of ACE in South Carolina veterans.

### ACE Survey Items

In 2014, ACE survey items were collected via the BRFSS in South Carolina and modeled the original ACE Study survey questions (Morse & Stropolis, 2016a, 2016b for additional information). ACE prevalence (*yes/no*) and eight ACE types (abuse: physical, emotional, sexual; household dysfunction: household mental illness, substance use, domestic violence, incarceration, parental separation/divorce) were assessed. Table 1 lists each of the 11 ACE survey items administered to South Carolina residents (18 years or older). Two items assessed household

substance use (alcohol, drugs), and three items assessed sexual abuse (i.e., inappropriate touch, involuntary sexual intercourse). Items in these categories were collapsed for analytic purposes and are consistent with previous ACE research (e.g., Anda et al., 2006; Felitti et al., 1998). Item responses only indicated whether a participant self-reported experiencing a particular ACE. The survey does not capture intensity or frequency of ACE exposure, but does measure cumulative exposure to ACEs. The 2014 BRFSS question to identify veterans asked "Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit?" Respondents were advised that "active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War (CDC, 2013).

Table 1

ACE Types and Survey Items	
ACE TYPE	SURVEY ITEM(S)
Household Mental Illness	Did you live with anyone who was depressed, mentally ill, or suicidal?
Household Substance Use	Did you live with anyone who was a problem drinker or alcoholic? <i>or</i> Did you live with anyone who used illegal street drugs or abused prescription medications?
Household Incarceration	Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?
Parental Separation/Divorce	Were your parents separated or divorced?
Household Domestic Violence	How often did your parents or adults in your home ever slap, hit, kick, punch, or beat each other up?
Physical Abuse	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.
Emotional Abuse	How often did a parent or adult in your home ever swear at you, insult you, or put you down?
Sexual Abuse	How often did anyone at least 5 years older than you or an adult ever touch you sexually? <i>or</i> try to make you touch them sexually? <i>or</i> force you to have sex?

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4. Veteran refers to any South Carolina resident with current or past active duty military service including those who were activated while serving in the National Guard or Reserves.



ACEs and other BRFSS data are weighted so that data is representative of the adult population of South Carolina residents who have land line and cellular telephones. Weighting ensures that groups who are underrepresented in the data can be accounted for during data analysis. BRFSS data is weighted to ensure unbiased population estimates by accounting for complex sampling, nonresponse, and non-coverage (e.g., landline versus cell phone data collection; CDC, 2014b). Thus, a “weight” is assigned to every survey respondent. Underrepresented respondents have a higher weight, whereas oversampled or represented respondents have a lower weight (Kish, 1990). Weighted descriptive statistics and modified Rao-Scott chi-square estimates (Rao & Scott, 1984) were used to interpret ACE findings. See *Weighting of BRFSS Data* (CDC, 2014b) for more information.

### South Carolina Veterans' Demographic Characteristics

Military veterans are well-represented in South Carolina. According to the American Community Survey (U.S. Census Bureau, 2014), in 2013, 361,660 veterans resided in South Carolina and had a median income of \$58,792. Of these veterans, 9% were women, 64% were aged 55 and older, and 27% had a college degree or higher (U.S. Census Bureau, 2014).

In 2014, 1,779 veterans with a mean age of 56 years responded to the ACE module of the 2014 South Carolina BRFSS—representing 16% of BRFSS respondents in South Carolina ( $N = 11,027$ ). An overwhelming majority were men (89%), aged 40 years and over (84%), resided in the Upstate, Midlands, or Pee Dee regions (83%); and about two-thirds attended technical school/college or had a college degree (65%). Almost half (46%) earned \$50,000 or more annually and 11% were women. Table 2 reports demographic characteristics of South Carolina veterans who responded to the ACE module of the 2014 South Carolina BRFSS.

### ACE Prevalence in South Carolina Veterans

Table 3 presents ACE prevalence among South Carolina veterans. ACE prevalence in South Carolina veterans was 60% compared to 62% among all South Carolina residents responding to the ACE module of the 2014 BRFSS (see Morse, Stropolis, Priester, & Wooten, 2016). Thirty-nine percent ( $n = 689$ ) reported experiencing household dysfunction and 29% ( $n = 521$ ) reported experiencing child abuse. (Household dysfunction and child abuse ACE categories were not mutually exclusive.) Emotional abuse (31%) was the most frequently reported ACE followed by parental separation/divorce (28%) and household substance use (28%). Household incarceration (7%) was the least frequently reported ACE.

### South Carolina Veterans' Cumulative ACE Exposure

Veterans may have multiple adverse experiences during childhood (Katon et al., 2015). Table 4 reports cumulative ACE exposure among South Carolina veterans. From among all South

Carolina veterans, 23% reported experiencing one ACE and 15% reported experiencing four or more (4+) ACEs. Among South Carolina veterans experiencing ACE (783 of 1,779 veterans), 56% ( $n = 435$ ) reported experiencing two or more ACEs.

### Demographic Characteristics of South Carolina Veterans who Experienced ACEs

Table 5 reports ACE prevalence in South Carolina veterans compared to veterans who did not report ACE by demographic characteristics. Examining ACE prevalence by demographic characteristics revealed high ACE prevalence. In all demographic categories (except age 60+ and graduated college/technical school), the majority of South Carolina veterans reported ACEs compared to those who did not report ACEs. An overwhelming majority (i.e., 64%-86%) of women, veterans under age 60, all racial/ethnic minorities, veterans who earned less than \$50,000, and those who resided in the Midlands reported ACEs compared to veterans of similar demographic characteristics who did not report ACEs.

### Demographic Characteristics of South Carolina Veterans by Cumulative ACEs

Table 6 reports the prevalence of cumulative ACEs in South Carolina veterans by demographic characteristics. Women veterans reported 4+ ACEs at a substantially higher rate than men (23% versus 14%, respectively). South Carolina veterans under age 60 (i.e., 25% for ages 18-39; 22% for ages 40-59) reported 4+ ACEs at more than twice the rate of older veterans (i.e., 10% for age 60 and older); and veterans ages 18-39 (18%) reported three ACEs three times the rate of older veterans (6%). Hispanic and other racial/ethnic minority veterans reported one ACE and three ACEs at higher rates than White and Black veterans. South Carolina veterans who earned less than \$25,000 in 2014 reported 4+ ACEs at a much higher rate (23%) than veterans with higher annual incomes. South Carolina veterans who did not graduate from high school reported 4+ ACEs at a higher rate (22%) than veterans with higher levels of education.

### Demographic Characteristics of South Carolina Veterans who Experienced Household Dysfunction

Overall, 39% of South Carolina veterans reported experiencing household dysfunction. Table 7 reports the prevalence of five household dysfunction ACE categories (i.e., parental separation/divorce, household substance use, household domestic violence, household mental illness) by demographic characteristics. In all household dysfunction categories, ACE prevalence was higher among women veterans than men. Interestingly, younger veterans (i.e., under age 60) reported higher rates of all five household dysfunction categories compared to older veterans (i.e., aged 60 and older); and racial/ethnicity minorities reported higher rates of three out of five household dysfunction experiences (i.e., parental separation/divorce, household domestic violence, household incarceration) compared to Whites.





South Carolina veterans who did not have a high school diploma reported higher rates of parental separation/divorce, household substance use, and household domestic violence than veterans with higher levels of education who reported higher rates of household mental illness and household incarceration. Household dysfunction was similar among veterans across all South Carolina regions. A discussion of each household dysfunction category by demographic characteristics is provided below.

**Parental separation/divorce.** In this category, South Carolina veterans differed by age, race/ethnicity, and educational attainment. Younger veterans (i.e., ages 18-59) reported experiencing parental separation/divorce at higher rates than older veterans (i.e., age 60 and older). Racial and ethnic minority veterans reported experiencing parental separation/divorce at higher rates than White veterans. South Carolina veterans without a high school diploma reported a higher rate (38%) of parental separation/divorce than veterans with higher levels of education.

**Household substance use.** South Carolina veterans differed by sex, age, and household income when reporting experiences of living with household members who used alcohol and drugs. Women, younger veterans (i.e., ages 18-59), those living in the Midlands and with households earning less than \$25,000 annually reported higher rates of household substance use than South Carolina veterans in the same demographic categories.

**Household domestic violence.** South Carolina veterans who reported witnessing physical abuse between their parents or other adults differed by age, race/ethnicity, household income, and educational attainment. Younger veterans (i.e., ages 18-59), racial/ethnic minorities, and veterans living in households earning less than \$50,000 annually reported higher rates of witnessing domestic violence than older veterans, Whites, and veterans from households earning more than \$50,000 annually. South Carolina veterans without a high school diploma reported a higher rate (25%) of witnessing domestic violence between their parents or other adults than veterans with higher levels of education.

**Household mental illness.** South Carolina veterans who reported living with someone who was depressed, mentally ill, or suicidal differed by sex, age, and race/ethnicity. Women veterans (15%) had slightly higher rates of household mental illness than male veterans (13%). Younger veterans (i.e., 27% for ages 18-39; 19% for ages 40-59) reported household mental illness at substantially higher rates than older veterans (7%). Racial/ethnic minorities who were not Black or Hispanic reported higher rates of household mental illness (31%) than all other racial/ethnic groups.

**Household incarceration.** South Carolina veterans who reported living with someone who served time in prison differed by age, race/ethnicity, and educational attainment. Young veterans (i.e., 20% for those under age 40) reported having a household

member who served time in prison, jail, or other correctional facility at more than twice the rate of older veterans (i.e., 9% for ages 40-59; 3% for age 60 and older). Racial/ethnic minority veterans reported living with someone who had served time in prison at substantially higher rates (13-15%) than White veterans (4%). South Carolina veterans who graduated from high school reported a higher rate (11%) of living with someone who was imprisoned than veterans with other levels of education.

### Demographic Characteristics of South Carolina Veterans who Experienced Child Abuse

Overall, 29% of South Carolina veterans reported experiencing child abuse. Table 8 reports the prevalence of three child abuse ACE categories (i.e., physical, emotional, sexual) by demographic characteristics. In all child abuse categories, ACE prevalence was higher among women veterans than men. Younger veterans (i.e., ages 18-59) reported higher rates of all types of child abuse than older veterans. Veterans without a high school diploma reported higher rates of physical and sexual abuse than veterans with higher levels of education. A discussion of each child abuse category by demographic characteristics is provided below.

**Physical Abuse.** South Carolina veterans who reported experiencing physical abuse differed by sex, age, region, household income, and educational attainment. Women (22%) and younger veterans (i.e., 17% for both ages 18-39 and ages 40-59) reported higher rates of physical abuse than men (14%) and older (i.e., 13% for ages 60 and older) veterans. Veterans residing in the Upstate (16%) and Midlands (16%) reported slightly higher rates of physical abuse than those residing in the Pee Dee (12%) or Lowcountry (14%). Veterans living in households earning less than \$25,000 (22%) reported experiencing physical abuse at higher rates than veterans with higher annual household incomes. South Carolina veterans who did not graduate from high school reported higher rates (21%) of physical abuse than veterans with higher levels of education.

**Emotional Abuse.** South Carolina veterans who reported experiencing emotional abuse differed by sex, age, race/ethnicity, region, and income. Women veterans (43%) reported substantially higher rates of emotional abuse than men (29%). Young veterans reported experiencing emotional abuse at substantially higher rates than older veterans (i.e., 38% for ages 40-59 and 23% for ages 60 and older). Hispanics (54%) and other racial/ethnic minority (42%) veterans reported substantially higher rates of emotional abuse than Black (31%) or White (29%) veterans. Veterans residing in the Midlands (32%) and Pee Dee (32%) reported higher rates of emotional abuse than those residing in the Lowcountry (28%) and Upstate (29%). Veterans earning less than \$25,000 (37%) reported higher rates of emotional abuse than veterans with higher annual household incomes.





**Sexual Abuse.** South Carolina veterans who reported experiencing sexual abuse differed by sex, age, household income, and education. Women veterans (23%) and younger veterans (i.e., 17% for ages 18-39; 14% for ages 40-59) reported substantially higher rates of sexual abuse than men (9%) and older veterans (7%), respectively. South Carolina veterans from households earning less than \$25,000 (17%) reported experiencing sexual abuse at higher rates than veterans with higher annual household incomes. South Carolina veterans who did not graduate from high school reported higher rates (17%) of sexual abuse than veterans with education.

### Conclusions and Implications

ACE prevalence among South Carolina veterans is high with nearly two-thirds of our state’s veterans reporting that they experienced childhood adversity. Women, young veterans (i.e., ages 18-39), racial/ethnic minority veterans, and veterans of lower socioeconomic statuses (i.e., no high school diploma and/or earning less than \$25,000 annually) had higher ACE prevalence than veterans in the same demographic categories. Most noteworthy is that younger veterans (i.e., ages 18-39) reported experiencing all types of both household dysfunction and child abuse ACE at substantially higher rates than older veterans (i.e., age 60 and older). Veterans with lower education levels reported experiencing five types of ACE (i.e., parental separation/divorce, household substance use, household domestic violence, physical and sexual abuse) at higher rates than veterans with higher levels of education. All racial/ethnicity minorities reported experiencing three of five household dysfunction categories (i.e., parental separation/divorce, domestic violence, household incarceration) at substantially higher rates than White veterans. Tables 1-5 display demographic characteristics (i.e., sex, age, race/ethnicity, annual household income, and educational attainment) of South Carolina veterans who reported the highest ACE prevalence.

High numbers of ACEs have been found among men and women veterans (Blosnich et al., 2015; Katon et al., 2015) and estimates reported in this research brief are similar to prior research examining pre-military trauma and childhood adversity in military and veteran populations (see Blosnich et al., 2015; Clancy et al., 2006; Montgomery et al., 2013). The association between ACEs and negative outcomes in adulthood, including posttraumatic stress symptoms and smoking, among military service members and veterans is well-documented (e.g., Katon et al., 2015; Montgomery et al., 2013). Given that 56% of South Carolina veterans who reported an ACE experienced two or more ACEs, a substantial proportion of South Carolina veterans may be at risk for behavioral health problems and/or chronic health conditions. Our findings further indicate that women and racial/ethnic minority veterans and veterans of lower socioeconomic statuses have experienced multiple childhood traumas and thus, may be at increased risk for behavioral health conditions in adulthood. Screening for ACEs may be a public health approach to the early identification of behavioral health risk

and prevention of chronic health conditions in South Carolina veterans—and assist South Carolina in upholding our nation’s promise “to care for those who have borne the battle” and defended our nation’s freedoms. Future research briefs on ACEs among South Carolina veterans will focus on behavioral risk and chronic health conditions.

Children’s Trust will continue to assess ACEs in military and veteran communities. For example, the ACE Interface Master Training was provided in South Carolina to train various professionals about the impact of ACEs on health and well-being in adulthood. For more information visit: <http://scchildren.org/aces/>). Thus far, Children’s Trust has trained 50 trainers across the state, including an active duty military member and spouses of active duty military and reserve members.

Table 2

South Carolina Veterans’ Demographic Characteristics		
	DEMOGRAPHIC CHARACTERISTICS	PREVALENCE
Sex	Male	89%
	Female	11%
Age Group (Years)	18-39	16%
	40-59	29%
	60+	55%
Region1 (by counties)	Upstate	25%
	Midlands	31%
	PeeDee	27%
	Lowcountry	17%
Race/ Ethnicity	White, Non-Hispanic	70%
	Black, Non-Hispanic	24%
	Hispanic	3%
	Other Race, Non-Hispanic	3%
Annual Household Income	Less than \$25,000	22%
	\$25,000-49,999	33%
	\$50,000 or more	46%
Educational Attainment	Did not graduate high school	6%
	Graduated high school	29%
	Attended college or technical school	39%
	Graduated college or technical school	26%





**Table 3**

ACE Prevalence in South Carolina Veterans	
ACE TYPE	PREVALENCE
Any ACE Exposure	60%
Parental Separation/Divorce	28%
Household Substance Use	28%
Household Domestic Violence	20%
Household Mental Illness	13%
Household Incarceration	7%
Physical Abuse	15%
Sexual Abuse	10%
Emotional Abuse	31%

**Table 4**

Cumulative ACEs in South Carolina Veterans				
0 ACE	1 ACE	2 ACEs	3 ACEs	4+ ACEs
40%	23%	13%	8%	15%

**Table 5**

ACE Prevalence by Demographic Characteristics in South Carolina Veterans			
	DEMOGRAPHIC CHARACTERISTICS	ACE	NO ACE
Sex	Male	58%	42%
	Female	75%	25%
Age Group (Years)	18-39	83%	17%
	40-59	73%	27%
	60+	49%	51%
Region <sup>1</sup> (by counties)	Upstate	55%	45%
	Midlands	67%	33%
	PeeDee	58%	42%
	Lowcountry	58%	42%
Race/Ethnicity	White, Non-Hispanic	55%	45%
	Black, Non-Hispanic	69%	31%
	Hispanic	82%	18%
	Other Race, Non-Hispanic	86%	11%
Annual Household Income	Less than \$25,000	63%	37%
	\$25,000-49,999	64%	36%
	\$50,000 or more	58%	42%
Educational Attainment	Did not graduate high school	57%	42%
	Graduated high school	53%	47%
	Attended college or technical school	57%	43%
	Graduated college or technical school	49%	51%

Note. All percentages may not total 100% due to rounding.  
1. Counties represented in each region are reported in the Appendix.





Table 6

Cumulative ACEs by Demographic Characteristics among South Carolina Veterans						
DEMOGRAPHIC CHARACTERISTICS		0 ACE	1 ACE	2 ACEs	3 ACEs	4+ ACEs
Sex	Male	42%	23%	13%	8%	14%
	Female	25%	27%	16%	9%	23%
Age Group (Years)	18-39	17%	29%	10%	18%	25%
	40-59	27%	25%	17%	9%	22%
	60+	51%	21%	12%	6%	10%
Region <sup>1</sup> (by counties)	Upstate	45%	22%	11%	8%	13%
	Midlands	33%	23%	18%	10%	16%
	PeeDee	42%	24%	11%	10%	14%
	Lowcountry	42%	25%	12%	4%	17%
Race/Ethnicity	White, Non-Hispanic	45%	21%	12%	8%	14%
	Black, Non-Hispanic	31%	27%	16%	9%	17%
	Hispanic	18%	41%	5%	19%	17%
	Other Race, Non-Hispanic	11%	44%	13%	14%	19%
Annual Household Income	Less than \$25,000	37%	15%	15%	10%	23%
	\$25,000-49,999	36%	28%	12%	8%	15%
	\$50,000 or more	42%	24%	14%	9%	11%
Educational Attainment	Did not graduate high school	33%	24%	12%	10%	22%
	Graduated high school	39%	24%	13%	7%	16%
	Attended college or technical school	37%	23%	13%	9%	18%
	Graduated college or technical school	45%	25%	13%	8%	8%

Note. All percentages may not total 100% due to rounding.

1. Counties represented in each region are reported in the Appendix.





Table 7

DEMOGRAPHIC CHARACTERISTICS		HOUSEHOLD DYSFUNCTION									
		Parental Separation/ Divorce		Household Substance Use		Household Domestic Violence		Household Mental Illness		Household Incarceration	
		ACE	NO ACE	ACE	NO ACE	ACE	NO ACE	ACE	NO ACE	ACE	NO ACE
Sex	Male	26%	74%	26%	74%	19%	81%	13%	87%	7%	93%
	Female	37%	63%	38%	62%	28%	72%	15%	85%	9%	91%
Age Group (Years)	18-39	44%	56%	39%	61%	24%	76%	27%	73%	20%	80%
	40-59	43%	57%	37%	63%	25%	75%	19%	81%	9%	91%
	60+	17%	83%	21%	79%	16%	84%	7%	93%	3%	97%
Region <sup>1</sup> (by counties)	Upstate	24%	76%	27%	73%	19%	81%	17%	83%	7%	93%
	Midlands	28%	72%	30%	70%	22%	78%	12%	88%	10%	90%
	PeeDee	31%	69%	25%	75%	18%	82%	13%	87%	4%	96%
	Lowcountry	26%	74%	27%	73%	18%	82%	11%	89%	5%	95%
Race/ Ethnicity	White, Non-Hispanic	24%	76%	28%	72%	17%	83%	15%	85%	4%	96%
	Black, Non-Hispanic	36%	64%	26%	74%	28%	72%	7%	93%	13%	87%
	Hispanic	38%	62%	28%	72%	27%	73%	4%	96%	14%	86%
	Other Race, Non-Hispanic	44%	56%	25%	75%	20%	80%	31%	69%	15%	85%
Annual Household Income	Less than \$25,000	32%	68%	35%	65%	29%	71%	18%	82%	8%	92%
	\$25,000-49,999	32%	68%	25%	75%	22%	78%	10%	90%	8%	92%
	\$50,000 or more	25%	75%	25%	75%	15%	85%	13%	87%	5%	95%
Educational Attainment	Did not graduate high school	38%	62%	37%	63%	25%	75%	9%	91%	2%	98%
	Graduated high school	32%	68%	30%	70%	22%	78%	13%	87%	11%	89%
	Attended college or technical school	28%	72%	28%	72%	22%	78%	15%	85%	7%	93%
	Graduated college or technical school	20%	80%	22%	78%	12%	88%	12%	88%	4%	96%

Note. All percentages may not total 100% due to rounding.  
1. Counties represented in each region are reported in the Appendix.





Table 8

DEMOGRAPHIC CHARACTERISTICS		CHILD ABUSE					
		Physical Abuse		Emotional Abuse		Sexual Abuse	
		ACE	NO ACE	ACE	NO ACE	ACE	NO ACE
Sex	Male	14%	86%	29%	71%	9%	91%
	Female	22%	78%	43%	57%	23%	77%
Age Group (Years)	18-39	17%	83%	52%	48%	17%	83%
	40-59	17%	83%	38%	62%	14%	86%
	60+	13%	87%	23%	77%	7%	93%
Region <sup>1</sup> (by counties)	Upstate	16%	84%	29%	71%	12%	88%
	Midlands	16%	84%	32%	68%	8%	92%
	PeeDee	12%	88%	32%	69%	12%	88%
	Lowcountry	14%	86%	28%	72%	8%	92%
Race/Ethnicity	White, Non-Hispanic	15%	85%	29%	71%	11%	89%
	Black, Non-Hispanic	14%	86%	31%	69%	9%	91%
	Hispanic	18%	82%	54%	46%	11%	89%
	Other Race, Non-Hispanic	20%	80%	42%	58%	14%	86%
Annual Household Income	Less than \$25,000	22%	78%	37%	63%	17%	83%
	\$25,000-49,999	18%	82%	32%	68%	8%	92%
	\$50,000 or more	11%	89%	28%	72%	9%	91%
Educational Attainment	Did not graduate high school	21%	79%	31%	69%	17%	83%
	Graduated high school	15%	85%	30%	70%	13%	87%
	Attended college or technical school	14%	86%	32%	68%	14%	86%
	Graduated college or technical school	9%	91%	28%	72%	9%	91%

Note. All percentages may not total 100% due to rounding.  
1. Counties represented in each region are reported in the Appendix.







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## Appendix A

### South Carolina Behavioral Risk Factor Surveillance System Regions

**Upstate:** Cherokee, Greenville, Pickens, Spartanburg, Abbeville, Anderson, Greenwood, Laurens, McCormick, Oconee

**Midlands:** Aiken, Barnwell, Edgefield, Newberry, Saluda, Fairfield, Kershaw, Lexington, Richland, Chester, Lancaster, York

**Lowcountry:** Berkeley, Charleston, Dorchester, Allendale, Bamberg, Beaufort, Calhoun, Colleton, Hampton, Jasper, Orangeburg

**Pee Dee:** Georgetown, Horry, Williamsburg, Chesterfield, Clarendon, Darlington, Dillon, Florence, Lee, Marion, Marlboro, Sumter





## Appendix B

Figure 1: Sex

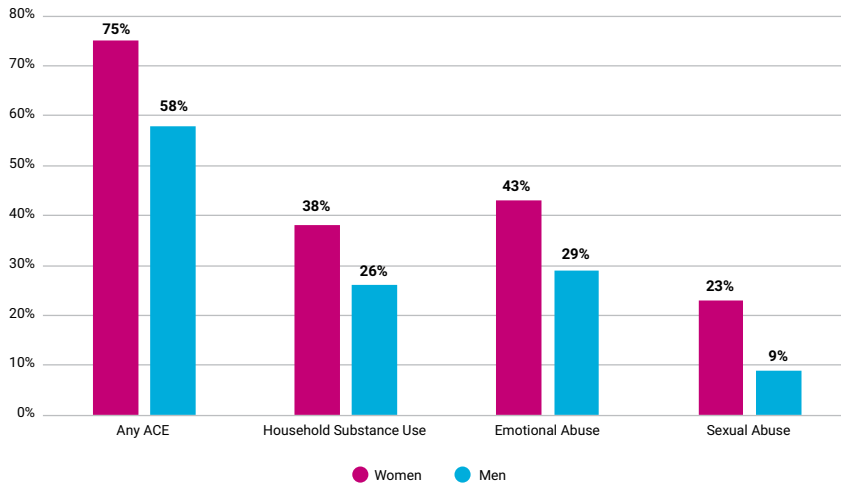


Figure 2: Age Group

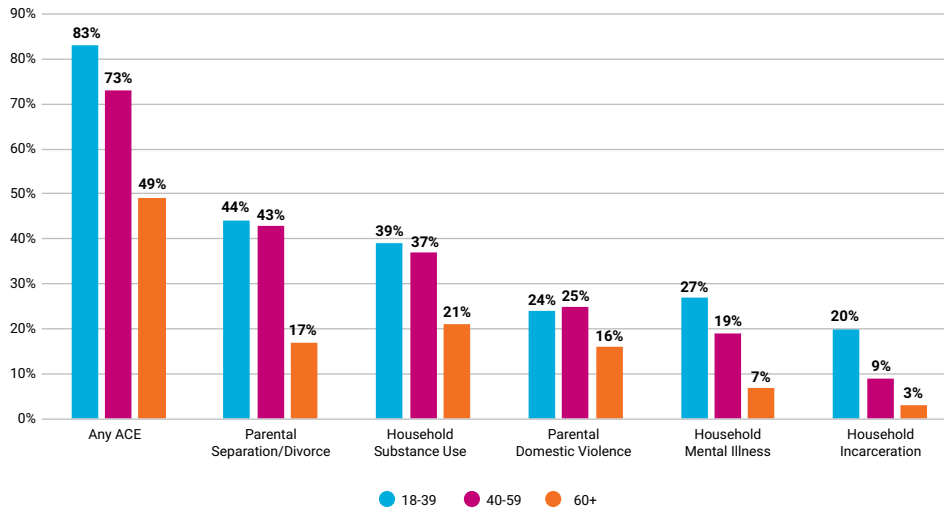
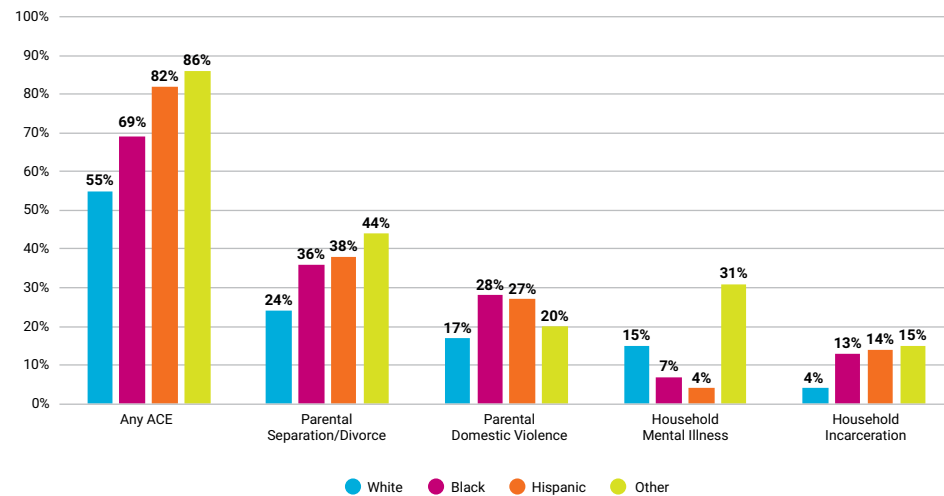


Figure 3: Race/Ethnicity





Appendix B Continued

Figure 4: Annual Household Income

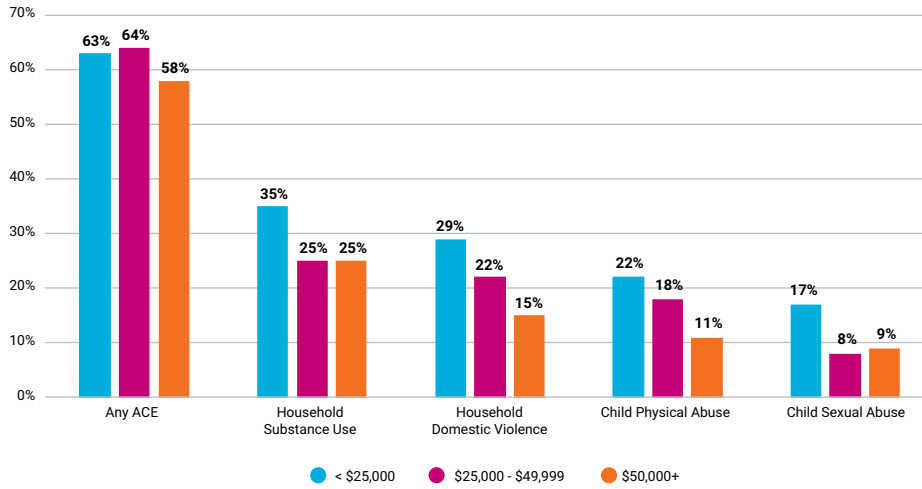


Figure 5: Educational Attainment

