

State of American Indian/Alaska Native Children and Families, Part 3:

Adverse Childhood Experiences and Historical Trauma



NICWA

National Indian Child Welfare Association
Protecting Our Children • Preserving Our Culture

Adverse childhood experiences (ACEs) are potentially traumatic events occurring during childhood (from the ages of 0–17) such as experiencing abuse or neglect or witnessing violence in the home. ACEs also include aspects of a child’s environment that can undermine their sense of safety, stability, and bonding, such as growing up in a household with substance misuse, mental health problems, instability due to parental separation, or incarceration of a parent, sibling, or other member of the household (Centers for Disease Control and Prevention [CDC], 2022).

Adverse childhood experiences have been linked to poor physical, mental, and behavioral health outcomes. According to the Centers for Disease Control (2022), the presence of ACEs can increase risks of injury, sexually transmitted infections, maternal and child health problems (including teen pregnancy, pregnancy complications, and fetal death), involvement in sex trafficking, and a wide range of chronic diseases and leading causes of death such as cancer, diabetes, heart disease, and suicide. ACEs impact future violence victimization and perpetration, as well as lifelong opportunity, including education and job potential (CDC, 2022).

As the number of ACEs increases, so does the risk for poor outcomes (CDC, 2022; Bell et al., 2021). In their review of literature related to outcomes among those with ACEs (including 37 studies), Hughes et al. (2017) found, compared with those without ACEs, adults with an ACE score of 4 or more are:

- twice as likely to engage in smoking, heavy alcohol use, and have cancer, heart disease, and respiratory disease;
- three to six times as likely to engage in risky sexual behavior, report mental illness and problematic alcohol use; and
- more than seven times as likely to use drugs (problematically) and experience interpersonal and self-directed violence.

Studies have shown that American Indians/Alaska Natives (AI/ANs) experience a disparate number of ACEs compared to the general population (Giano et al., 2021; Warne et al., 2017; Kenney & Singh, 2016; Koss et al., 2003).

ACEs among AI/AN Adults

In 2009, the Centers for Disease Control began allowing states to add ACEs questions to their Behavioral Risk Factor Surveillance Survey (BRFSS) data collection. BRFSS is a national survey conducted annually that collects data through telephone (cellular and landline) interviews with adults. In BRFSS, adverse childhood experiences are assessed in eight domains, including three types of abuse (emotional, physical, and sexual), household substance use, household mental illness, intimate partner violence, parental separation/divorce, and household member incarceration. Higher scores indicate greater exposure to adversity.

A recent study by Giano et al. (2021) used combined 2009–2017 BRFSS data from 34 states to examine adverse childhood experiences among self-identified AI/AN adults (n=3,894). Just over a quarter of AI/ANs in the Giano et al. (2021) sample reported having none of the assessed adverse childhood experiences. Among the 72.1% of the AI/AN population that had experienced at least one ACE, 37.6% had experienced three or more. By comparison, a study using BRFSS ACEs data from 2011–2013 (combined data years) from 23 states conducted by Merrick et al. (2018) found 61.6% of their study sample (n=214,157 individuals of all races) reported at least one ACE and 24.6% reported three or more ACEs.

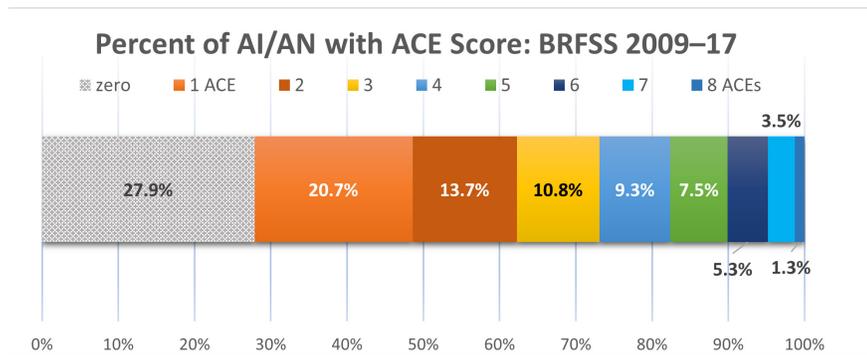
The graph in Figure 1 shows the proportion of AI/AN adults reporting 0–8 total ACEs in Giano et al.’s sample (2021).

Overall, Giano et al. (2021) found the average ACE score among AI/AN adults was 2.32, higher than the mean scores of those identifying as White (1.53), Black (1.66), and Hispanic (1.63). Giano et al. (2021) provided further detail about the scores, reporting on each of the eight domains assessed. Table 1 presents the prevalence of adverse childhood experiences reported for the eight assessed ACE categories by race/ethnicity.

Giano et al. (2021) found AI/ANs had the highest prevalence of adverse experiences in childhood of any race/ethnicity for all domains except parental separation/divorce, where the frequency for Black individuals was 44% (higher than the 41.6% among AI/ANs). All other prevalence differences among AI/ANs and other groups for the eight domains were statistically significant ($p < 0.001$).

Figure 1

Percent of AI/AN with ACE Score: BRFSS 2009—17



Note: Adapted from “Adverse Childhood Events in American Indian/Alaska Native Populations,” 2021, by Z. Giano, R. L. Camplain, C. Camplain, G. Pro, S. Haberstroh, J. A. Baldwin, D. L. Wheeler, and R. D. Hubach, 2021, *American Journal of Preventive Medicine*, 60(2), pp. 213–221.

Table 1

Comparison of AI/AN ACE Prevalence in the U.S. (34 States), BRFSS 2009—2017

Category/Domain	AI/AN %	White %	Black %	Hispanic %	All races/ ethnicities %
Emotional	43.1	33.4	28.8	33.7	33.4
Physical	27.2	15.8	12.1	23.8	17.5
Sexual	17.6	11.0	11.8	11.2	11.3
Intimate partner violence	28.5	15.5	21	22.5	17.7
Household substance abuse	40.9	26.8	25.4	26.6	26.8
Household mental illness	22.7	17.9	11.1	11.0	16.1
Parental separation/divorce	41.6	25.3	44.0	28.5	28.2
Family incarceration	17.5	6.3	14.1	9.2	8.0
ACE score mean	2.32	1.53	1.66	1.63	1.56

Note: Adapted from “Adverse Childhood Events in American Indian/Alaska Native Populations,” 2021, by Z. Giano, R. L. Camplain, C. Camplain, G. Pro, S. Haberstroh, J. A. Baldwin, D. L. Wheeler, and R. D. Hubach, 2021, *American Journal of Preventive Medicine*, 60(2), pp. 213–221.

Among AI/ANs, emotional abuse (43.1%), parental separation/divorce (41.6%), and household substance abuse (40.9%) were most frequently reported ACEs, followed by intimate partner violence (28.5%) and physical abuse (27.2%).

For their analyses, Giano et al. (2021) stratified the AI/AN sample by variables including age and sex. The highest mean ACEs score was reported by AI/ANs 25–34 years of age (3.04), followed by 18–24-year-olds (2.91). For all older age groups (groups ages 35 and up), ACE scores decreased as age increased. The lowest mean ACEs score of 1.18 was reported by AI/ANs age ≥64 years. The average ACE score was higher for AI/AN females (2.52) than males (2.12). AI/ANs females reported higher percentages of ACEs in all the domains except for having an incarcerated household member. Gender differences were greatest for sexual abuse (females 26% vs. 9% for males).

Giano et al. (2021) also stratified the AI/AN sample by census region. (For a map showing states in each census region, see the Appendix). It should be noted that not all states in any given region are included in these data, as BRFSS ACEs data for this study were obtained from 34 states. With respect to region, those living in the East North Central region (including Wisconsin, Michigan, Illinois, and Ohio) had the highest ACE score (2.69), and those living in New England (including Maine, Vermont and Connecticut) had the lowest (1.69).

Table 2 presents the ACE categories and mean ACE score for AI/ANs by gender and region from Giano et al. (2021).

Giano et al. (2021) found regional variation by ACE category:

- Emotional abuse: Prevalence among regions ranged from a high of 55.5% to a low of 28.6%. The East North Central region (including Wisconsin, Michigan, Illinois, and Ohio) had the highest prevalence (55.5%).
- Physical abuse: Prevalence among regions ranged from a high of 35.1% to a low of 19.1%. The East North Central region had the highest prevalence (35.1%).
- Sexual abuse: Prevalence was greatest in the East South Central region (including Kentucky and Tennessee) at

Table 2*ACE Types and Mean ACE Score, AI/AN BRFSS Respondents (34 States), 2009—2017, by Gender and Region*

	Emotional abuse	Physical abuse	Sexual abuse	Intimate partner violence	Household substance abuse	Household mental illness	Parental separation/divorce	Incarcerated household member	ACE score (Mean)
Total	43.1	27.2	17.6	28.5	40.9	22.7	41.6	17.5	2.32
Male	40.5	23.8	9.0	28.2	39.6	19.4	38.6	18.8	2.12
Female	45.8	30.3	26.2	28.6	42.3	25.8	44.6	16.3	2.52
Census region									
New England	31.8	19.1	17.3	24.5	24.3	17.3	25.7	11.8	1.69
Middle Atlantic	28.6	23.9	5.3	17.6	39.7	28.5	47.8	31.5	2.22
South Atlantic	34.9	22.3	13.4	24.8	35.7	23.7	34.2	14.2	1.96
East North Central	55.5	35.1	21.6	33.3	38.6	15.8	61.3	15.3	2.69
East South Central	45.3	24.8	26.4	24.8	42.2	36.2	46.1	19.5	2.64
West North Central	42.8	28.8	16.3	33.9	46.9	28.3	45.0	17.2	2.51
West South Central	43.3	25.4	18.3	25.0	38.5	18.9	39.9	14.0	2.17
Mountain	52.0	31.4	15.5	39.1	49.0	27.0	40.6	21.0	2.61
Pacific	44.0	29.0	21.9	29.3	42.7	16.9	37.1	18.2	2.34

Note: New England includes Connecticut, Maine, and Vermont; there was no data from New Hampshire, Massachusetts, or Rhode Island. Middle Atlantic includes New York and Pennsylvania; there was no data from New Jersey. South Atlantic includes Florida, Georgia, North Carolina, South Carolina, Virginia, and West Virginia; there was no data from Delaware or Maryland. East North Central includes Illinois, Michigan, Ohio, and Wisconsin; there was no data from Indiana. East South Central includes Kentucky and Tennessee; there was no data from Alabama or Mississippi. West North Central includes Iowa, Minnesota, Nebraska, and South Dakota; there was no data from Kansas, Missouri, or North Dakota. West South Central includes Arkansas, Louisiana, Oklahoma, and Texas. Mountain includes Arizona, Montana, Nevada, and New Mexico; there was no data from Colorado, Idaho, Utah, or Wyoming. Pacific includes Alaska, California, Hawaii, Oregon, and Washington. Adapted from “Adverse Childhood Events in American Indian/Alaska Native Populations,” 2021, by Z. Giano, R. L. Camplain, C. Camplain, G. Pro, S. Haberstroh, J. A. Baldwin, D. L. Wheeler, and R. D. Hubach, 2021, *American Journal of Preventive Medicine*, 60(2), pp. 213–221.

- 26.4%; the lowest prevalence was 5.3%. Intimate partner violence: The Mountain region (including Montana, Nevada, Arizona, New Mexico) had the highest prevalence (39.1%). The prevalence low was 17.6%.
 - Household substance abuse: Prevalence among regions ranged from a high of 49% to a low of 24.3%. The Mountain region had the highest prevalence (49%).
 - Household mental illness: Prevalence was greatest in the East South Central region (36.2%). The prevalence low was 15.8%.
 - Parental separation/divorce: Prevalence among regions ranged from a high of 61.3% to a low of 25.7%. The East North Central region had the highest prevalence (61.3%).
 - Incarcerated household member: Prevalence was greatest in the Middle Atlantic Region (including New York, Pennsylvania) (31.5%); the lowest prevalence was 11.8%.
- Other studies have observed geographic variability in ACE scores among AI/ANs in the United States. Koss et al.’s (2003) older study of ACEs with seven tribes (including

one tribe each from the Bemidji [Minnesota], Oklahoma City [Oklahoma], Portland [Oregon], and Nashville [Tennessee] Indian Health Service [IHS] areas, as well as three tribes from the Phoenix [Arizona] area) found significant tribal differences with regard to the number and types of ACEs reported by tribal members, as well as inter-tribal variability by gender for types of adverse experiences. Parental alcohol abuse, physical abuse and neglect, and emotional neglect varied most by tribal community; sexual abuse and emotional abuse showed the greatest variability within tribal communities by gender. For example, prevalence for physical abuse across the seven tribal communities ranged from a low of 11% to a high of 70%. In five tribes, women had higher prevalence of sexual abuse (as much as 16% higher), but for two tribes prevalence was higher among men (as much as 13% higher).

Lifetime prevalence rates among the 1,660 AIs in the study by Koss et al. (2003) for one or more types of ACEs were 86% overall. The range across the seven tribes among men was 74%–100%; among women it was 83%–93%. These rates were higher than the general population (estimated at 52%). The prevalence of experiencing four or more ACEs was also higher in Koss et al.’s AI sample (33% compared to 6.2% for the general population).

Notably, Koss et al. (2003) also included boarding school attendance as an adverse childhood experience. Boarding school attendance, like other ACEs, varied significantly

Table 3
Boarding School Attendance as an ACE: Prevalence Among Seven Tribes, 1998—2001

	Men (%)	Women (%)
Total (N=1660)	24	27
Tribe 1	39	42
Tribe 2	18	19
Tribe 3	11	8
Tribe 4	19	32
Tribe 5	63	66
Tribe 6	18	27
Tribe 7	19	21

Note: Adapted from “Adverse Childhood Exposures and Alcohol Dependence Among Seven Native American Tribes,” by M. P. Koss, N. P. Yuan, D. Dightman, R. J. Prince, M. Polacca, B. Sanderson, and D. Goldman, 2003, *American Journal of Preventive Medicine*, 25(3), pp. 238–244.

among tribes. In one tribe, more than half of tribal men and women went to boarding school (63–66%), while in another tribe 11% of men and 8% of women attended.

For another study assessing the prevalence of adverse childhood experiences among American Indian adults, Warne et al. (2017) used ACEs data from the South Dakota Health Survey (SDHS). The SDHS was a statewide, multimode (mail, telephone, and in-person) survey conducted from November 2013–October 2014. The SDHS sample included 7,593 individuals, 516 of whom self-identified as American Indian alone or in combination with another race/ethnicity. Warne et al. (2017) assessed childhood experience of abuse (emotional, physical, and sexual); household substance abuse and mental illness; parental separation or divorce; and incarceration of household members. They also included measures of maternal experience of interpersonal violence, as well as emotional and physical neglect.

There were stark differences between the AI and non-AI samples in Warne et al.’s study. About 17% of the AI sample reported having none of the assessed adverse childhood experiences, while half (50%) of the non-AI sample reported none. The proportion of AI and non-AI respondents who had only one ACE were similar (22% and 23%, respectively). However, AIs were more likely to report at least one ACE (83%), and more likely to report two or more ACEs. Among the AI respondents, 45% had experienced three or more, while 17% of non-AI respondents reported three or more. Starkly, only 4% of non-AI respondents experienced six or more ACEs, while almost 20% of AI respondents did.

The graph in Figure 2 shows the proportion of AI and non-AI adults reporting zero–to ≥6 total ACEs in Warne et al.’s sample (2017).

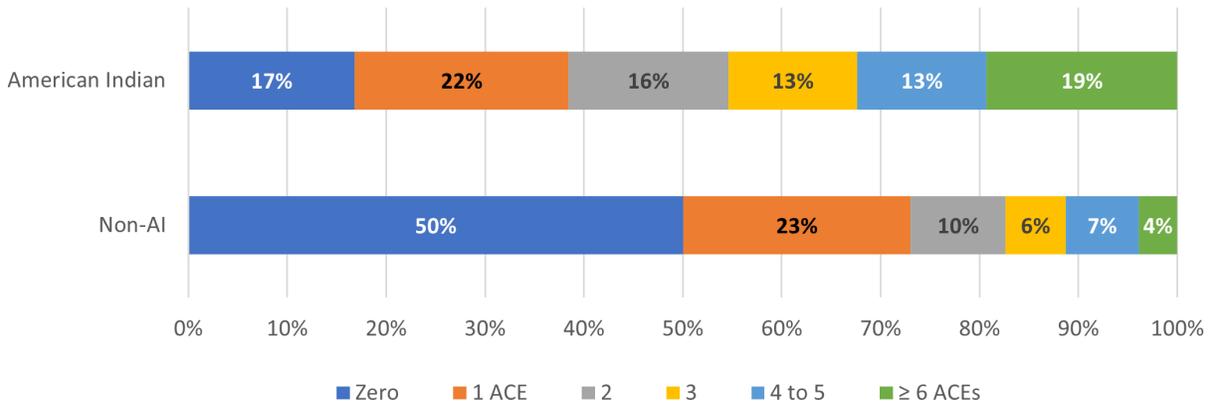
Warne et al. (2017) reported on each of the domains assessed; Table 4 presents the proportion of adverse childhood experiences for assessed ACE categories for American Indian and non-AI respondents.

The greatest difference between the AI and non-AI groups was for household substance abuse (50% vs. 21.5%), followed by parental separation or divorce (39.3% vs. 20.2%), family incarceration (22.6% vs. 3.7%), and intimate partner violence (23.8% vs. 5.3%). The smallest difference observed was for sexual abuse. All observed differences were statistically significant ($p < 0.05$).

Warne et al. (2017) included neglect domains which were not assessed by Giano et al. (2021). Notably, 15.9% of AIs reported childhood experiences of physical neglect (a category that includes lack of sufficient food, clothing, protection, or medical care) compared with only 2.8% of non-AIs.

Figure 2

Percent of AI and Non-AI with ACE Scores, South Dakota



Note: Adapted from “Adverse Childhood Experiences (ACE) Among American Indians in South Dakota and Associations with Mental Health Conditions, Alcohol Use, and Smoking,” by D. Warne, K. Dulacki, M. Spurlock, T. Meath, M. M. Davis, B. Wright, and K. J. McConnell, 2017, *Journal of Health Care for the Poor and Underserved*, 28(4), pp. 1559–1577.

Table 4

Comparison of AI and Non-AI Population ACE Prevalence in South Dakota, 2013—2014

	American Indian %	Non-AI %
Emotional abuse	30.1	17.4
Physical abuse	24.5	12.3
Sexual abuse	15.5	9.6
Intimate partner violence (maternal experience)	23.8	5.3
Household substance abuse	50.0	21.5
Household mental illness	24.4	13.9
Parental separation/divorce	39.3	20.2
Family incarceration	22.6	3.7
Neglect		
Emotional neglect	25.9	14.0
Physical neglect	15.9	2.8

Note: Adapted from “Adverse Childhood Experiences (ACE) Among American Indians in South Dakota and Associations with Mental Health Conditions, Alcohol Use, and Smoking,” by D. Warne, K. Dulacki, M. Spurlock, T. Meath, M. M. Davis, B. Wright, and K. J. McConnell, 2017, *Journal of Health Care for the Poor and Underserved*, 28(4), pp. 1559–1577.

ACEs among AI/AN Children (aged 0–17 years)

Kenney and Singh (2016) examined adverse childhood experiences (ACEs) among AI/AN children (aged 0–17 years) using parent responses from the 2011–2012 National Survey of Children’s Health. Their sample included 1,453 AI/AN children and 61,381 non-Hispanic White children. Kenney and Singh (2016) had parents answer questions about whether a specific (named) child of theirs had: lived in a household with difficulty affording food or housing, with domestic violence, with someone who was a substance abuser or mentally ill; lived in a household where parents had gotten divorced/separated, a parent died or was incarcerated; or been a victim of violence/witness to violence in the neighborhood or been treated /judged unfairly based on race/ethnicity. (It should be noted that parent’s reports may be biased, as they may be more likely to downplay adverse events within their household, such as interpersonal violence [Giano et al., 2021].)

A little over one third (35%) of the AI/AN parents reported their child experienced none of the assessed ACEs, while over half (56%) of the White children’s parents reported no ACEs for their child. AI/AN and White children were equally likely to have one ACE (24% and 23%, respectively). However, differences in accumulated ACEs were significant, with AI/AN children 2–3 times more likely to have multiple adverse experiences. Among the AI/AN children, 27% experienced three or more ACEs, while

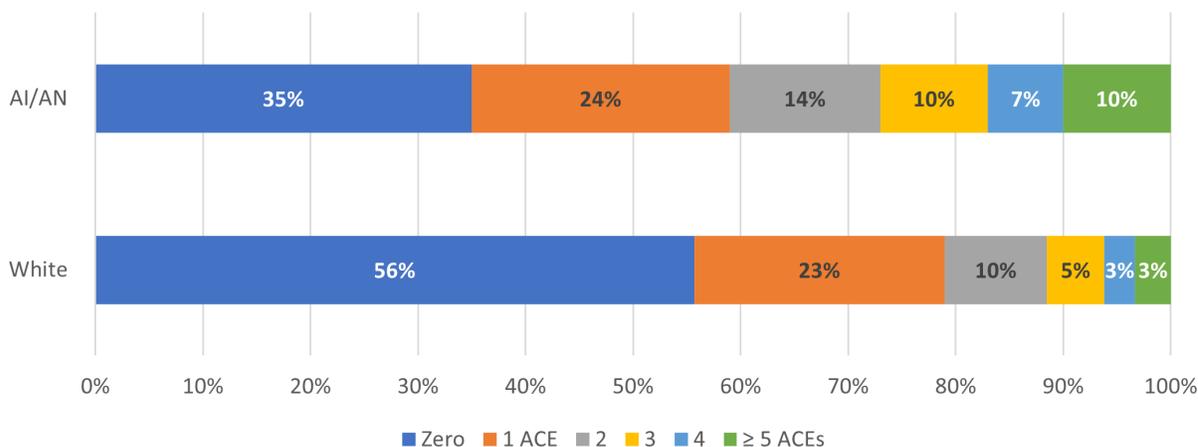
11% of White children had. Only 3% of White children experienced five or more ACEs, while 10% of AI/AN children experienced this many.

The graph in Figure 3 shows the proportion of non-Hispanic AI/AN and White children’s (parent-reported) ACE score (from 0–≥5 total ACEs) in Kenney and Singh’s (2016) sample.

With regard to individual ACEs, Kenney and Singh’s (2016) analyses indicated that a higher proportion of AI/AN children than White children experienced all the ACEs assessed, however differences were not significant with regard to living in a household with mental illness. Significant differences were observed for the remaining ACEs assessed: insufficient family income, witnessing or experiencing violent victimization (in household or neighborhood), household substance abuse, and parental incarceration, divorce, or death.

Table 5 presents the prevalence of ACEs reported by AI/AN and White parents for the nine assessed ACE categories.

Figure 3
Percent of AI and White Children with ACE Score



Note: Adapted from “Adverse Childhood Experiences Among American Indian/Alaska Native Children: The 2011–2012 National Survey of Children’s Health,” by M. K. Kenney and G. K. Singh, 2016, *Scientifica*.

Table 5*Comparison of AI/AN and White (Non-Hispanic) Parent-Reported ACE Prevalence in the U.S., National Survey of Children’s Health 2011—2012*

	AI/AN (%)	White (%)
Child’s family has difficulty getting by on the family’s income, hard to cover basics like food or housing	35.7	22.8
Child lived with parent who got divorced/separated after he/she was born	33.0	21.4
Child lived with anyone who had a problem with alcohol or drugs	23.6	11.6
Child lived with parent who served time in jail after he/she was born	18.0	6.0
Child was a victim of violence or witnessed violence in his/her neighborhood	15.9	6.7
Child saw parents hit, kick, slap, punch, or beat each other up	15.5	6.3
Child lived with anyone who was mentally ill or suicidal or severely depressed for more than a couple of weeks	13.2	9.7
Child lived with parent who died	4.2	2.5
Child was ever treated or judged unfairly because of his/her race or ethnic group	10.0	1.4

Note: Adapted from “Adverse Childhood Experiences Among American Indian/Alaska Native Children: The 2011–2012 National Survey of Children’s Health,” by M. K. Kenney and G. K. Singh, 2016, *Scientifica*.

AI/AN children in Kenney and Singh’s (2016) sample were 2–3 times more likely to experience adversity than White children in four ACE categories. Specifically, AI/AN children were at least twice as likely as White children to have

- An incarcerated parent (18% versus 6%),
- Observed interpersonal violence between parents (15.5% versus 6.3%),
- Been a victim of violence/witnessed violence in the neighborhood (15.9% versus 6.7%), and
- Lived with substance abuse in the household (23.6% versus 11.6%).

AI/AN children were also more likely (1.5–1.7 times) to have

- Lived in families with insufficient income to cover things like food or housing (35.7% versus 22.8%),
- Experienced parents divorcing or separating (33% versus 21.4%), and
- Lived with a parent who died (4.2% versus 2.5%).

Kenney and Singh’s (2016) study also examined outcomes associated with ACE scores. They found that AI/AN children with two or more ACEs had approximately 10 times greater odds of having parent-reported emotional/developmental/behavioral problems than AI/AN children with <2 ACEs.

Circumstances measured by ACEs

The high prevalence of ACEs among AI/ANs is unsurprising given what related research has shown about AI/ANs disproportionate experience of circumstances measured by ACEs, such as mental health status, violence, and incarceration. For example, research has shown AI/ANs are twice as likely as the general population to develop post-traumatic stress disorder (PTSD). The research on PTSD in AI/AN populations shows that AI/ANs, both rural and urban, are more likely to be exposed to intimate partner, interpersonal, or combat-related violence, as well as childhood abuse that leads to PTSD (Bassett et al., 2014).

Further, research on violent victimization among AI/ANs shows:

- AI/ANs are more likely to experience violent victimization in their lifetime. Rosay (2016) found the lifetime victimization rate of AI/AN women and men was 20–30% higher than among Whites. More than four in five AI/AN adults (83%) reported experiencing some form of violence in their lifetime.
- AI/ANs are more likely to be hospitalized due to assault than non-Hispanic Whites. Using 2007–2014 National

Trauma Data Bank data (containing records for 39,656 AI/ANs and over three million non-Hispanic Whites), Fuentes et al. (2019) found a significantly higher proportion of AI/ANs were hospitalized with assault-related injuries (25% vs. 5% of non-Hispanic Whites).

- AI/AN women are more likely to experience intimate partner violence in their lifetime (Schultz et al., 2021; Smith et al., 2017; Rosay, 2016). Intimate partner violence includes physical violence, sexual violence, stalking, and psychological aggression (including coercive tactics) by a current or former intimate partner (i.e., spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner). Results from the National Intimate Partner and Sexual Violence Prevention Survey (2010–2012) showed that, in the United States, 47.5% of American Indian/Alaska Native women reported experiencing contact sexual violence, physical violence, and/or stalking by an intimate partner in their lifetime. By comparison, 45.1% of non-Hispanic Black, 37.3% of non-Hispanic White, 34.4% of Hispanic, and 18.3% of Asian or Pacific Islander women reported any lifetime contact sexual violence, physical violence, and/or stalking by an intimate partner (Smith et al., 2017).

A notable finding related to violence against AI/ANs is that data suggest interracial violence is more prevalent than intra-racial violence. Among AI/AN violence victims, nearly all (97%) women and 90% of men report experiencing at least one act of violence committed by an interracial perpetrator. Fewer victims (35% of women and 33% of men) have experienced one or more acts of violence by an AI/AN perpetrator (Rosay, 2016).

In addition, the incarceration rate among AI/ANs is higher than Whites, Hispanics, and Asians. Data from the Annual Survey of Jails (ASJ) show that in 2018, the local jail incarceration rate for AI/ANs was 401 per 100,000. This was nearly twice the local jail incarceration rate for all persons nationally (226 per 100,000). These numbers likely represent an undercount of the total incarceration rate for AI/ANs because these are only local jail incarceration data and do not include state or federal incarceration data.

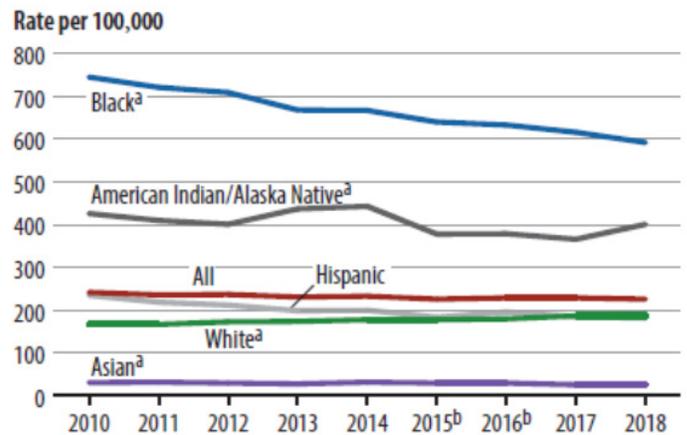
The graph in Figure 4 shows local jail incarceration rates for 2010–2018 by race/ethnicity.

As the graph in Figure 4 indicates, disparity in incarceration for AI/ANs in local jails has persisted since at least 2010 (Perry, 2020).

Historical Trauma

ACE measures examine adversity at an individual level. However, adverse experiences can be both individual

Figure 4
Jail Incarceration Rates by Race or Ethnicity, 2010—2018



Note: Adapted from *Tribal Crime Data-Collection Activities*, 2020, by S. W. Perry, 2020.

and collective. The traumatic history of war, colonization, removal, and oppression of AI/AN populations in the U.S. is well documented (Empey et al., 2021; PrettyPaint & Taylor, 2013; Seelau, 2012). Historical trauma is a term used to describe the emotional and psychological wounding caused by massive group trauma (Brave Heart, 2003); it is intergenerational and collective, with cumulative impacts (Brave Heart et al., 2011; Gone, 2013). The concept of historical trauma encapsulates the long-term, intergenerational impacts of colonization, cultural suppression, assimilation, and historical oppression of Indigenous peoples (Kirmayer et al., 2014). Many scholars emphasize the concept of historical trauma as a distinct form of collective trauma impacting AI/AN communities.

The events that constitute historical trauma for Indigenous peoples lasted hundreds of years, involved strategies of forced assimilation and marginalization, and disrupted the reproduction of cultural knowledge and traditions across the generations, through mechanisms such as religious suppression and residential/boarding schools (Kirmayer et al., 2014). The boarding school system was imposed on AI/AN peoples to force assimilation and destroy AI/AN cultural lifeways through removal of Indigenous children from their families and communities. These schools were sites of colonial oppression, where cultural suppression was violently enacted and abuses suffered. The boarding schools represent a trauma that was both individually and collectively experienced (Bombay et al., 2014; Kirmayer et al., 2014).

As noted above, Koss et al. (2003) included boarding school attendance as an adverse childhood experience.

Research suggests AI/AN individuals accumulate personal adverse experiences which interrelate with the detrimental impacts of historical trauma. Wilk et al. (2017) and Bombay et al. (2014) reviewed scholarly literature assessing the intergenerational impacts of the boarding school system. They reported on consistent relationships found between familial boarding school attendance and various forms of distress (e.g., psychological distress, suicidal ideation and attempts, substance use, poor educational outcomes, etc.); further, research showed the more generations in a family that attended boarding schools, the poorer the psychological well-being of the next generation (Wilk et al. (2017; Bombay et al., 2014). These reviews summarize research findings tying the colonial oppression of the boarding school system to distress and adverse health outcomes of attending individuals *and* their offspring—consequences that continue to reverberate through the lives of many AI/ANs today.

Discussion

In this brief, ACEs and historical trauma among AI/ANs were discussed. Viewing trauma experienced by AI/AN populations through these lenses has limitations. As Giano et al. (2021) notes, ACEs attempt to distill adversity experienced in childhood into an easily measured and quantifiable construct and are based on individual experiences—they are not culturally centered or framed in a cultural context. ACEs constructs are limited in that they generally do not take into account historical trauma and related experiences that may be unique for AI/ANs.

Some scholars acknowledge that AI/AN peoples today experience the detrimental impacts of historical trauma, but emphasize the systemic racism, violence, and oppression of ongoing settler colonialism (Empey et al., 2021; Kirmayer et al., 2014). Empey et al. (2021) explain:

The alarming rates of physical, mental, and social health inequities (including poverty) experienced by AI/AN children are symptoms of settler colonialism, a legacy of structural racism embodied in Federal Indian policy, and ongoing structural violence. While both biological and social factors lead to differences in health outcomes, we posit the disparities experienced by AI/AN children are a direct extension of systems that have and continue to disrupt once healthy ways of knowing and being. (p. S134)

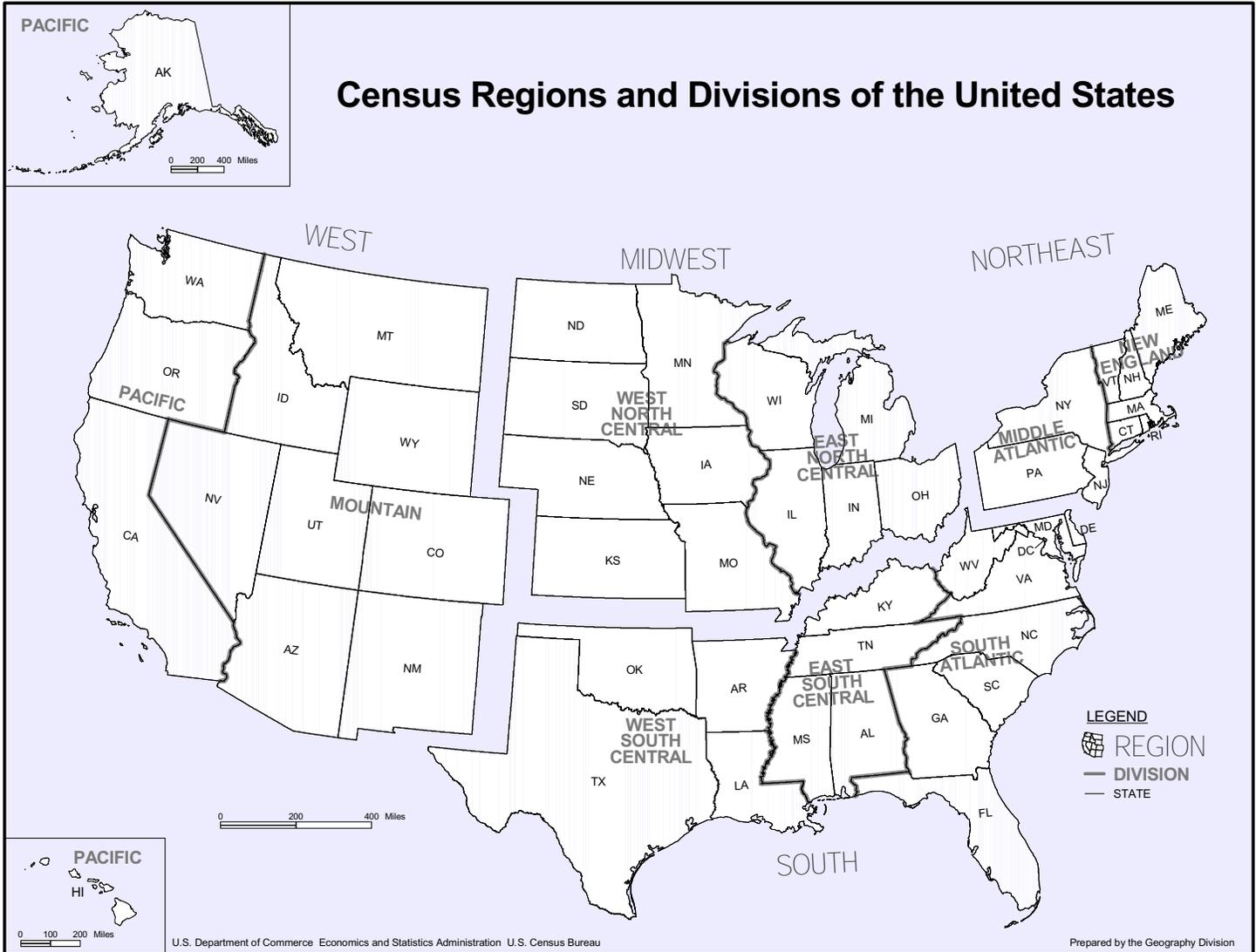
Kirmayer et al. (2014) also suggest the persistence of adversity in contemporary AI/AN communities is a result of “ongoing structural violence” (p. 301), as well as “ongoing forms of material dispossession and political domination” (p. 311). Kirmayer et al. (2014) assert “studies of historical trauma must be balanced by analyses of how current political and economic dynamics interact with community wellbeing” (p. 311–312).

The ACEs and historical trauma literature discussed here does not address trauma as a product of “ongoing structural violence,” although such a discussion may be vital to understanding why and how adverse experiences and trauma continue to accumulate for AI/ANs. A concept of “perceived discrimination” appears in both Kenney and Singh (2016) (ACEs study) and Bombay et al. (2014) (residential school historical trauma literature review), but this is discussed more as a detrimental *perception* rather than a detrimental *reality*.

Some of the ACE studies presented here provide nationally representative data, namely those by Giano et al. (2021) and Kenney and Singh (2016). Koss et al. (2003) showed levels of variation between tribes that can be obscured by aggregation, so national data should not be considered representative of all AI/AN communities. Similarly, state specific studies such as those by Warne et al. (2017) may not be applicable in other geographies.

Appendix

Figure A1
Census Regions and Divisions of the United States



Note: Reproduced from U.S. Census Bureau, n.d.

References

- Bassett, D., Buchwald, D., & Manson, S. (2014). Posttraumatic stress disorder and symptoms among American Indians and Alaska Natives: A review of the literature. *Social Psychiatry and Psychiatric Epidemiology*, 49(3), 417–433. doi:10.1007/s00127-013-0759-y
- Bell, S., Deen, J. F., Fuentes, M., Moore, K., & Committee on Native American Child Health (2021). Caring for American Indian and Alaska Native children and adolescents. *Pediatrics*, 147(4), e2021050498. <https://doi.org/10.1542/peds.2021-050498>
- Bombay, A., Matheson, K., & Anisman, H. (2014). The intergenerational effects of Indian residential schools: Implications for the concept of historical trauma. *Transcultural Psychiatry*, 51(3), 320–338. doi:10.1177/1363461513503380
- Brave Heart, M. Y. H. (2003). The historical trauma response among Natives and its relationship with substance abuse: A Lakota illustration. *Journal of Psychoactive Drugs*, 35(1), 7–13. <https://doi.org/10.1080/02791072.2003.10399988>
- Brave Heart, M. Y. H., Chase, J., Elkins, J., & Altschul, D. B. (2011). Historical trauma among Indigenous peoples of the Americas: Concepts, research, and clinical considerations. *Journal of Psychoactive Drugs*, 43(4), 282–290. <https://www.governor.wa.gov/sites/default/files/documents/Article%20-%20Historical%20Trauma%20Indigenous%20Peoples%20Meeting%206.pdf>
- Centers for Disease Control and Prevention. (2022). *Fast facts: Preventing adverse childhood experiences*. U.S. Department of Health and Human Services. <https://www.cdc.gov/violenceprevention/aces/fastfact.html>
- Empey, A., Garcia, A., & Bell, S. (2021). American Indian/Alaska Native child health and poverty. *Academic Pediatrics*, 21(8), S134–S139. <https://doi.org/10.1016/j.acap.2021.07.026>
- Fuentes, M. M., Moore, M., Qiu, Q., Quistberg, A., Frank, M., & Vavilala, M. S. (2019). Differences in injury characteristics and outcomes for American Indian/Alaska Native people hospitalized with traumatic injuries: An analysis of the National Trauma Data Bank. *Journal of Racial and Ethnic Health Disparities*, 6(2), 335–344. <https://doi.org/10.1007/s40615-018-0529-3>
- Giano, Z., Camplain, R. L., Camplain, C., Pro, G., Haberstroh, S., Baldwin, J. A., Wheeler, D. L., & Hubach, R. D. (2021). Adverse childhood events in American Indian/Alaska Native populations. *American Journal of Preventive Medicine*, 60(2), 213–221. <https://doi.org/10.1016/j.amepre.2020.08.020>
- Gone, J. P. (2013). Redressing First Nations historical trauma: Theorizing mechanisms for Indigenous culture as mental health treatment. *Transcultural Psychiatry*, 50(5), 683–706. doi:10.1177/1363461513487669
- Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L. & Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *The Lancet Public Health*, 2(8), e356–e366.
- Kenney, M. K., & Singh, G. K. (2016). Adverse childhood experiences among American Indian/Alaska Native children: The 2011–2012 National Survey of Children’s Health. *Scientifica*, Article ID 7424239. <https://doi.org/10.1155/2016/7424239>
- Kirmayer, L. J., Gone, J. P., & Moses, J. (2014). Rethinking historical trauma. *Transcultural Psychiatry*, 51(3), 299–319. <https://doi.org/10.1177/1363461514536358>
- Koss, M. P., Yuan, N. P., Dightman, D., Prince, R. J., Polacca, M., Sanderson, B., & Goldman, D. (2003). Adverse childhood exposures and alcohol dependence among seven Native American tribes. *American Journal of Preventive Medicine*, 25(3), 238–244.

-
- Merrick, M. T., Ford, D. C., Ports, K. A., & Guinn, A. S. (2018). Prevalence of adverse childhood experiences from the 2011–2014 Behavioral Risk Factor Surveillance System in 23 States. *JAMA Pediatrics*, 172(11), 1038–1044. <https://doi.org/10.1001/jamapediatrics.2018.2537>
- Perry, S. W. (2020). *Tribal crime data-collection activities, 2020* (NCJ 254789). U.S. Department of Justice, Bureau of Justice Statistics. https://bjs.ojp.gov/library/publications/list?series_filter=Tribal%20Crime%20Data%20Collection%20Activities
- PrettyPaint, I., & Taylor, C. (2013). Native aspirations: Addressing the contagion of violence in the context of historical trauma. In Institute of Medicine & National Research Council, *Contagion of violence: Workshop summary* (pp. 83–87). The National Academies Press. <https://www.ncbi.nlm.nih.gov/sites/books/NBK207250/>
- Rosay, A. B., (2016). *Violence against American Indian and Alaska Native women and men: 2010 findings from the National Intimate Partner and Sexual Violence Survey* [NCJ 249736]. U.S. Department of Justice, National Institute of Justice.
- Schultz, K., Walls, M., & Grana, S. J. (2021). Intimate partner violence and health: The roles of social support and communal mastery in five American Indian communities. *Journal of Interpersonal Violence*, 36(13–14), NP6725–NP6746. <https://doi.org/10.1177/0886260518821463>
- Seelau, R. (2012). Regaining control over the children: Reversing the legacy of assimilative policies in education, child welfare, and juvenile justice that targeted Native American youth. *American Indian Law Review*, 37(1), 63–108.
- Smith, S. G., Chen, J., Basile, K. C., Gilbert, L. K., Merrick, M. T., Patel, N., Walling, M., & Jain, A. (2017). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010–2012 state report*. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- U.S. Census Bureau. (n.d.). *Census regions and divisions of the United States*. U.S. Department of Commerce. https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf
- Warne, D., Dulacki, K., Spurlock, M., Meath, T., Davis, M. M., Wright, B., & McConnell, K. J. (2017). Adverse childhood experiences (ACE) among American Indians in South Dakota and associations with mental health conditions, alcohol use, and smoking. *Journal of Health Care for the Poor and Underserved*, 28(4), 1559–1577. <https://doi.org/10.1353/hpu.2017.0133>
- Wilk, P., Maltby, A., & Cooke, M. (2017). Residential schools and the effects on Indigenous health and well-being in Canada—A scoping review. *Public Health Reviews*, 38(1), 1–23. doi:10.1186/s40985-017-0055-6