

# 2013 Alaska Behavioral Risk Factor Surveillance System

## Adverse Childhood Experiences of Alaskan Adults



# What is the BRFSS

- **The Behavioral Risk Factor Surveillance System** marks its 30<sup>th</sup> year in 2013 and remains the gold standard of behavioral surveillance. Currently data are collected monthly in all 50 states, the District of Columbia, American Samoa, Palau, Puerto Rico, the U.S. Virgin Islands, and Guam.
- More than 500,000 interviews were conducted in 2011, making the BRFSS the largest telephone survey in the world.

# What are Adverse Childhood Experiences (ACEs)

## Abuse

1. Physical
2. Sexual
3. Verbal/Emotional

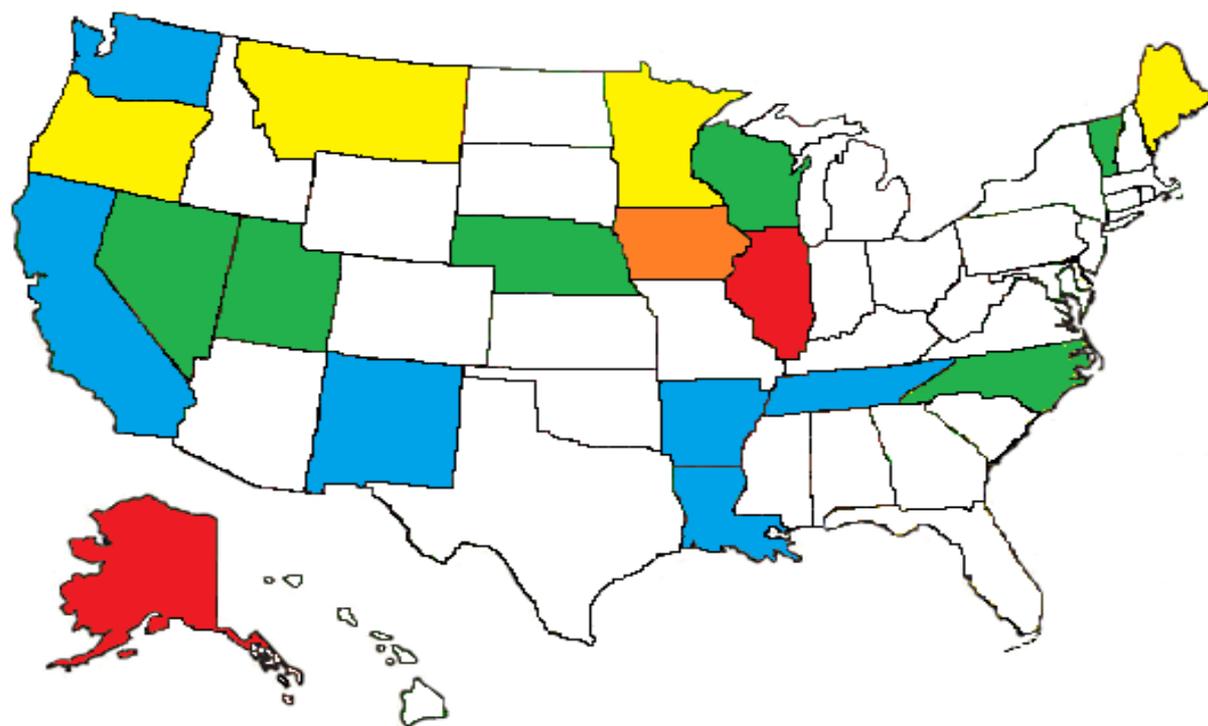
## Household Dysfunction

4. Mental Illness in the Household
5. Substance Abuse in the Household
6. Witnessing Domestic Violence
7. Separation/Divorce
8. Household Member in Prison

## Neglect (Note these questions were not asked in the 2013 BRFSS)

9. Physical
10. Emotional

## States with ACE Studies Through the BRFSS



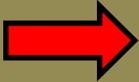
2009 2010 2011 2012 2013

# ACE Score Calculation

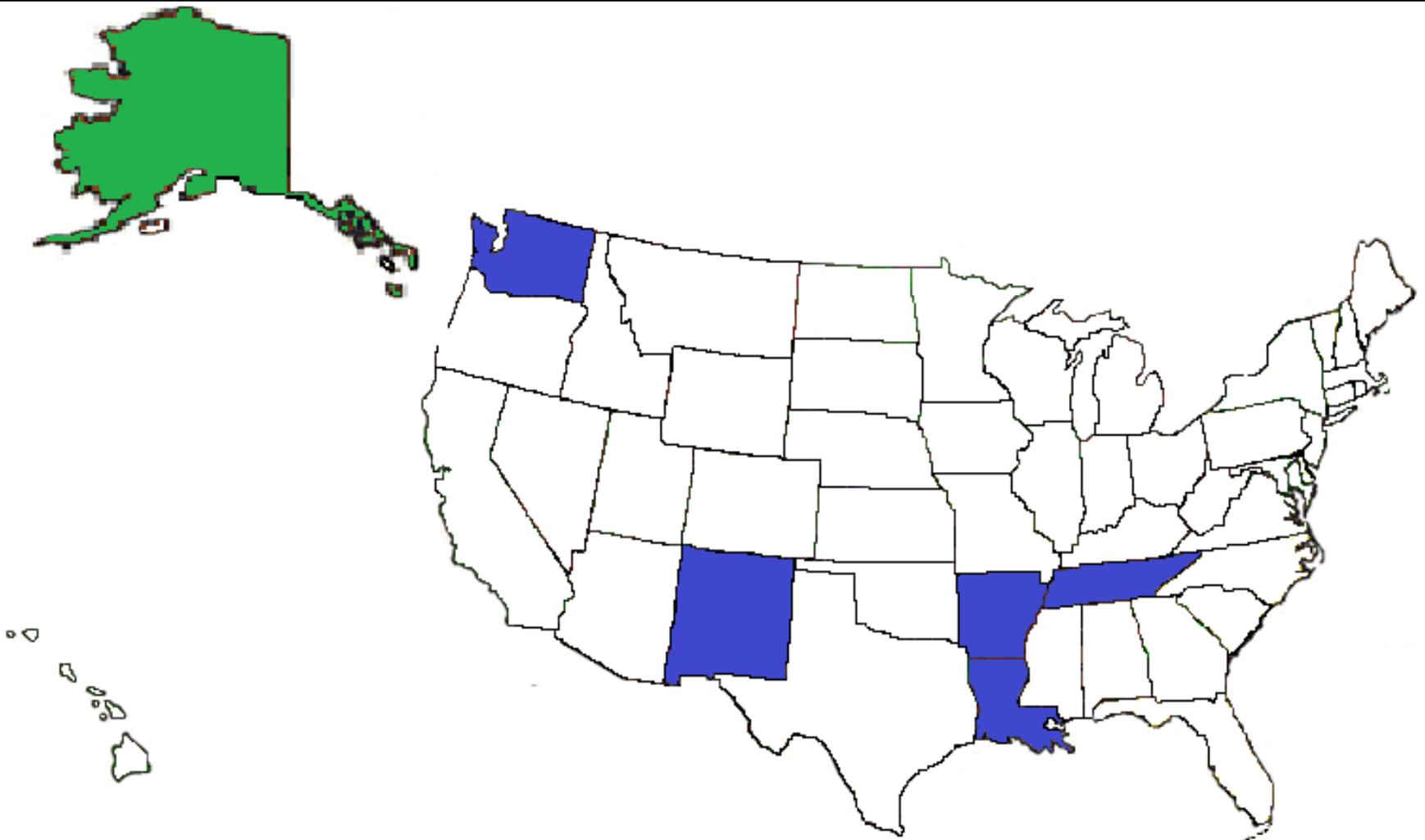
## The ACE Score

- The ACE Study used a scoring method to determine the “dose” of each study participant’s exposure to childhood trauma. Experiencing one category of ACE, qualifies as one ACE.
- When the points are added up, the **ACE Score** is determined.
- **An ACE Score of zero** would mean that a person reported **no exposure** to any of the categories of trauma listed as ACE.
- **An ACE Score of 8** would mean that a person reported **exposure to all of the categories of trauma** from the list.

# 2013 Alaska BRFSS

ACE SCORE 	0	1	2	3	4	5+
All Alaskan Adults	35.6%	22.3%	14.7%	10.1%	6.5%	10.8%
<b>Age Group</b>						
18-24	34.0%	26.0%	15.9%	8.2%	5.8%	10.0%
25-34	33.3%	19.8%	15.5%	10.9%	8.4%	12.1%
35-44	30.4%	26.8%	10.5%	10.7%	6.2%	15.3%
45-54	33.8%	20.5%	13.6%	12.8%	6.3%	13.0%
55+	41.7%	20.6%	16.7%	8.6%	5.9%	6.5%
<b>Gender</b>						
Male	38.9%	22.5%	16.1%	8.5%	5.6%%	8.5%
Female	32.0%	22.2%	16.1%	11.9%	7.5%%	13.2%

# Alaska and Five States' Combined ACE Data



# Why Compare to Other States

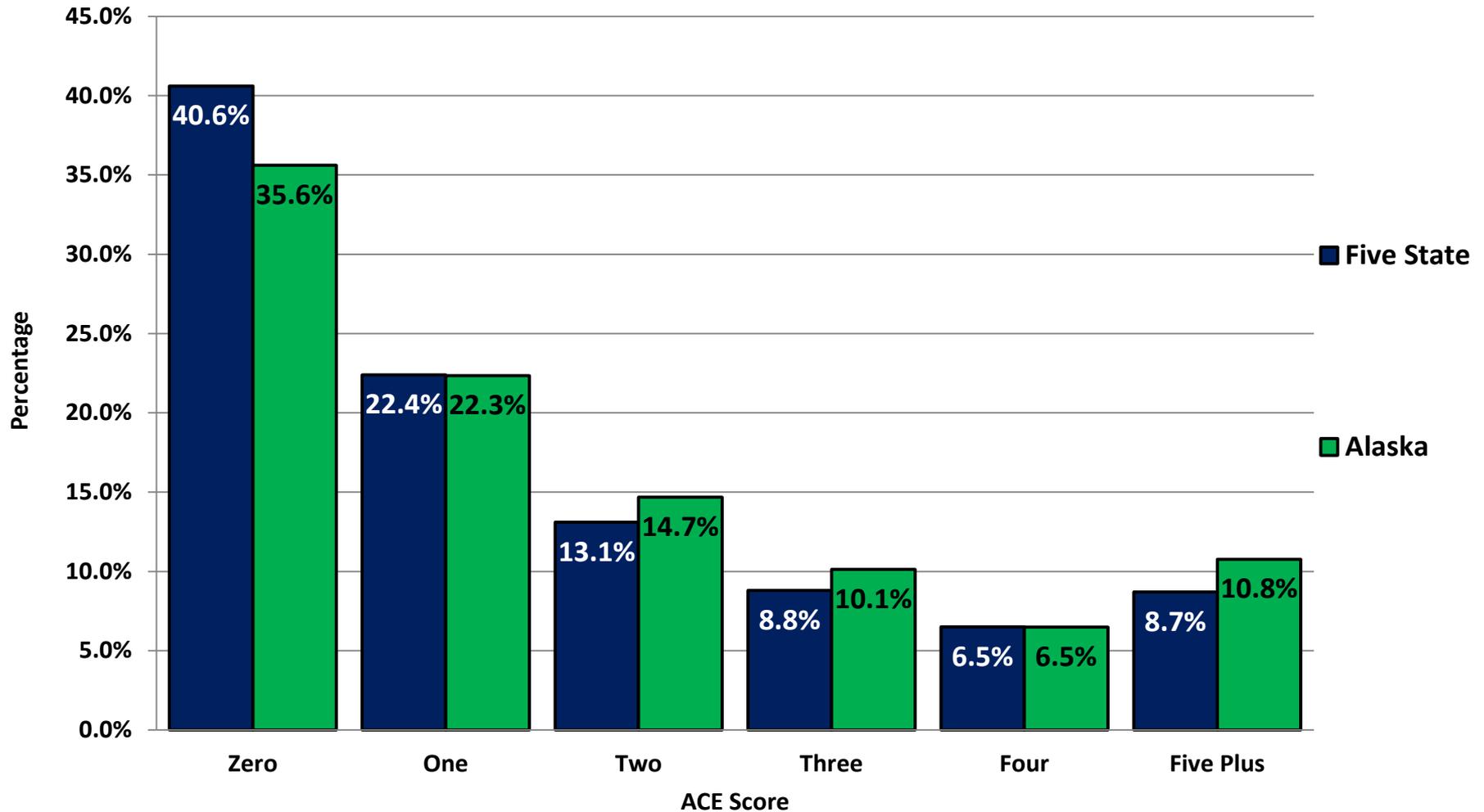
- **Context**
- **Changing Social Norms**
- **Early Mortality**
- **Chance to Compare Outcomes**

<b>Adverse Childhood Experience Score</b>	<b>Alaska</b>	<b>Arkansas</b>	<b>Louisiana</b>	<b>New Mexico</b>	<b>Tennessee</b>	<b>Washington</b>
<b>Zero</b>	<b>35.6%</b>	<b>46.9%</b>	<b>42.6%</b>	<b>39.0%</b>	<b>43.5%</b>	<b>34.6%</b>
<b>One</b>	<b>22.3%</b>	<b>21.0%</b>	<b>24.7%</b>	<b>21.8%</b>	<b>20.8%</b>	<b>23.0%</b>
<b>Two</b>	<b>14.7%</b>	<b>11.2%</b>	<b>12.9%</b>	<b>12.6%</b>	<b>12.6%</b>	<b>14.6%</b>
<b>Three</b>	<b>10.1%</b>	<b>7.1%</b>	<b>7.7%</b>	<b>10.1%</b>	<b>8.3%</b>	<b>10.3%</b>
<b>Four</b>	<b>6.5%</b>	<b>5.9%</b>	<b>5.5%</b>	<b>7.1%</b>	<b>6.2%</b>	<b>7.5%</b>
<b>Five Plus</b>	<b>10.8%</b>	<b>8.0%</b>	<b>6.6%</b>	<b>9.5%</b>	<b>8.7%</b>	<b>10.1%</b>

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults - Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Adverse Childhood Experiences Scores for Alaskan Adults and Their Five State ACE Study Peers



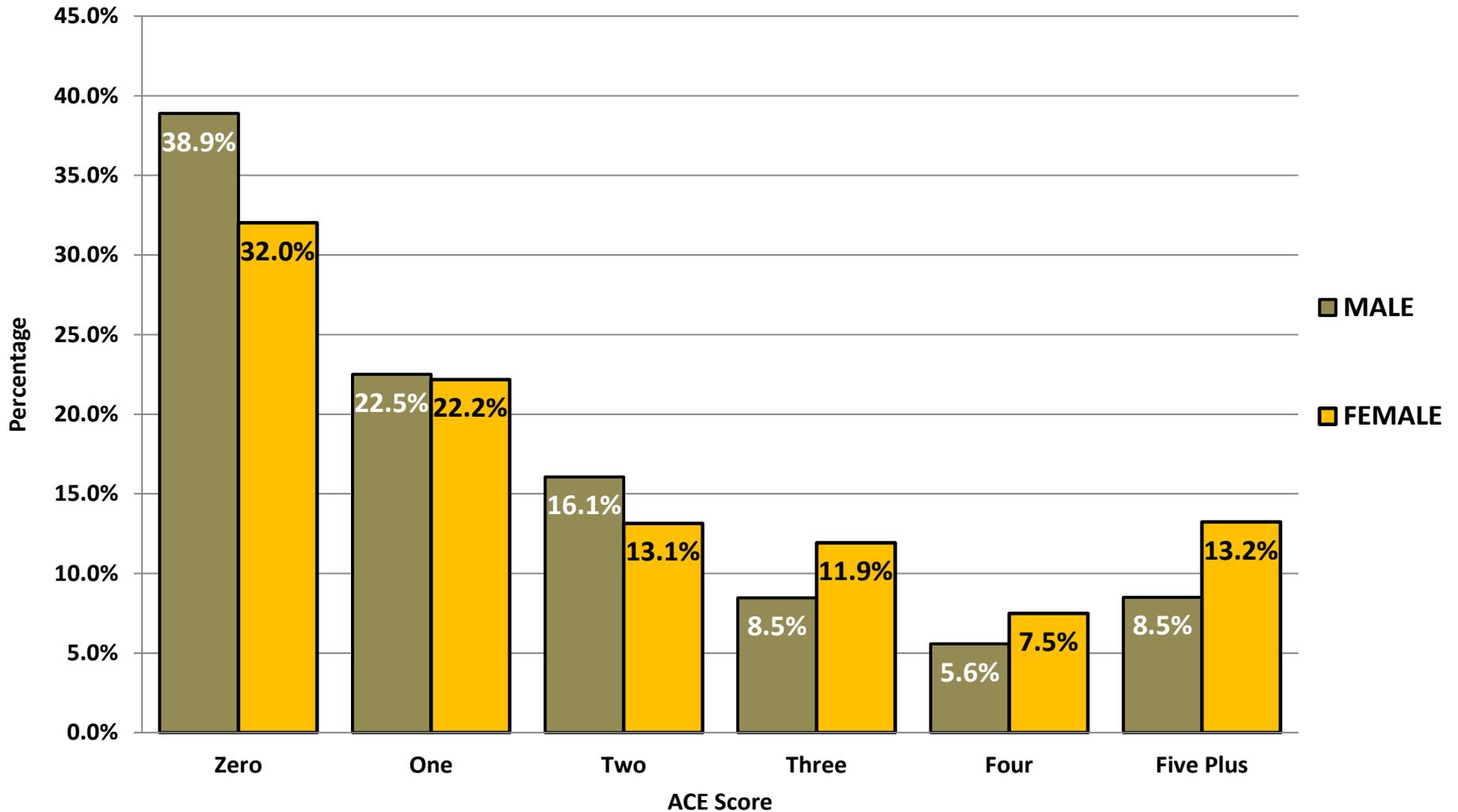
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Gender Differences

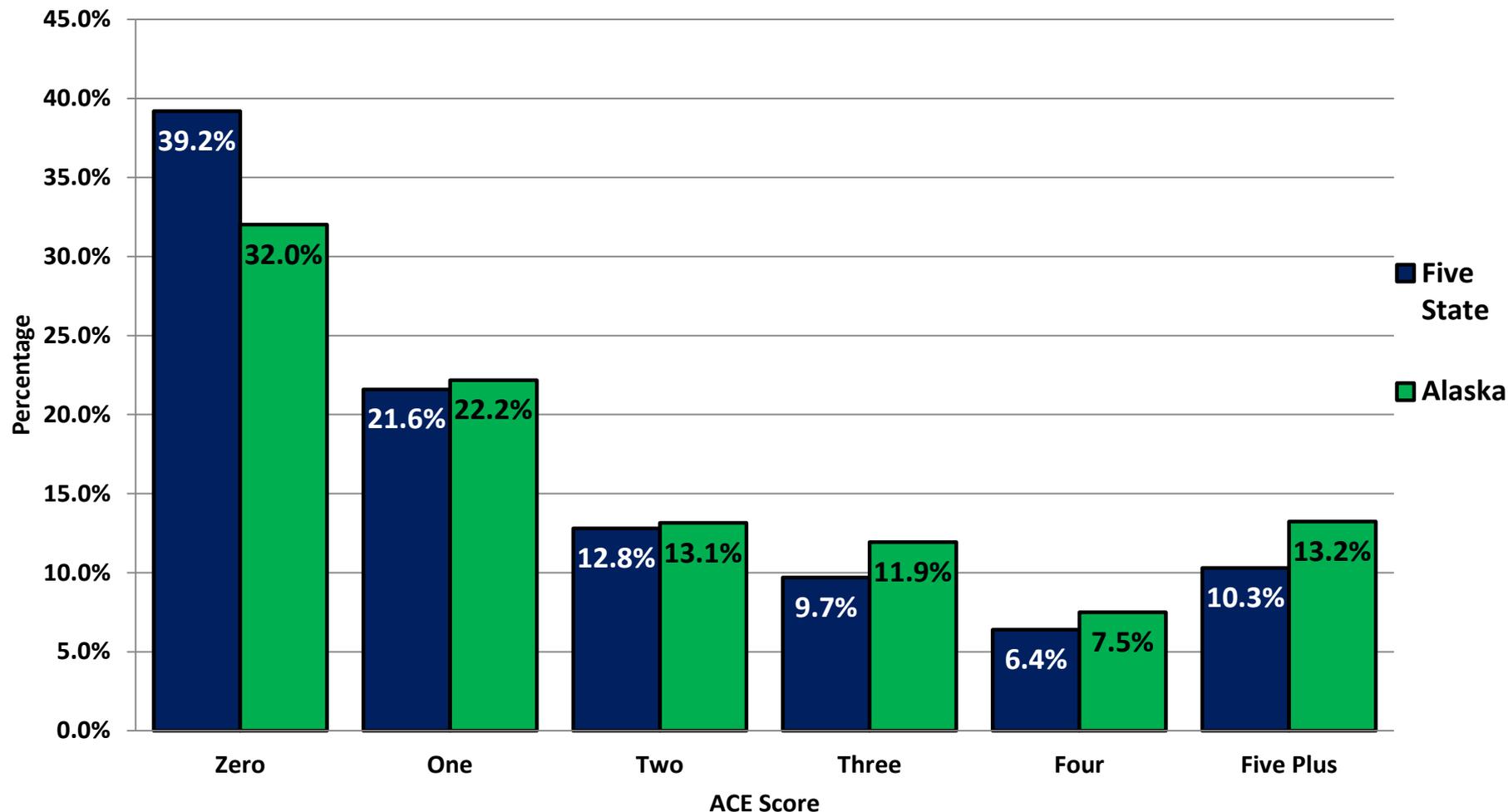
- ACE Scores are different between genders
  - Women report higher ACE scores
  - How do Alaska women compare?

## Adverse Childhood Experiences Scores for Alaskan Men and Women



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

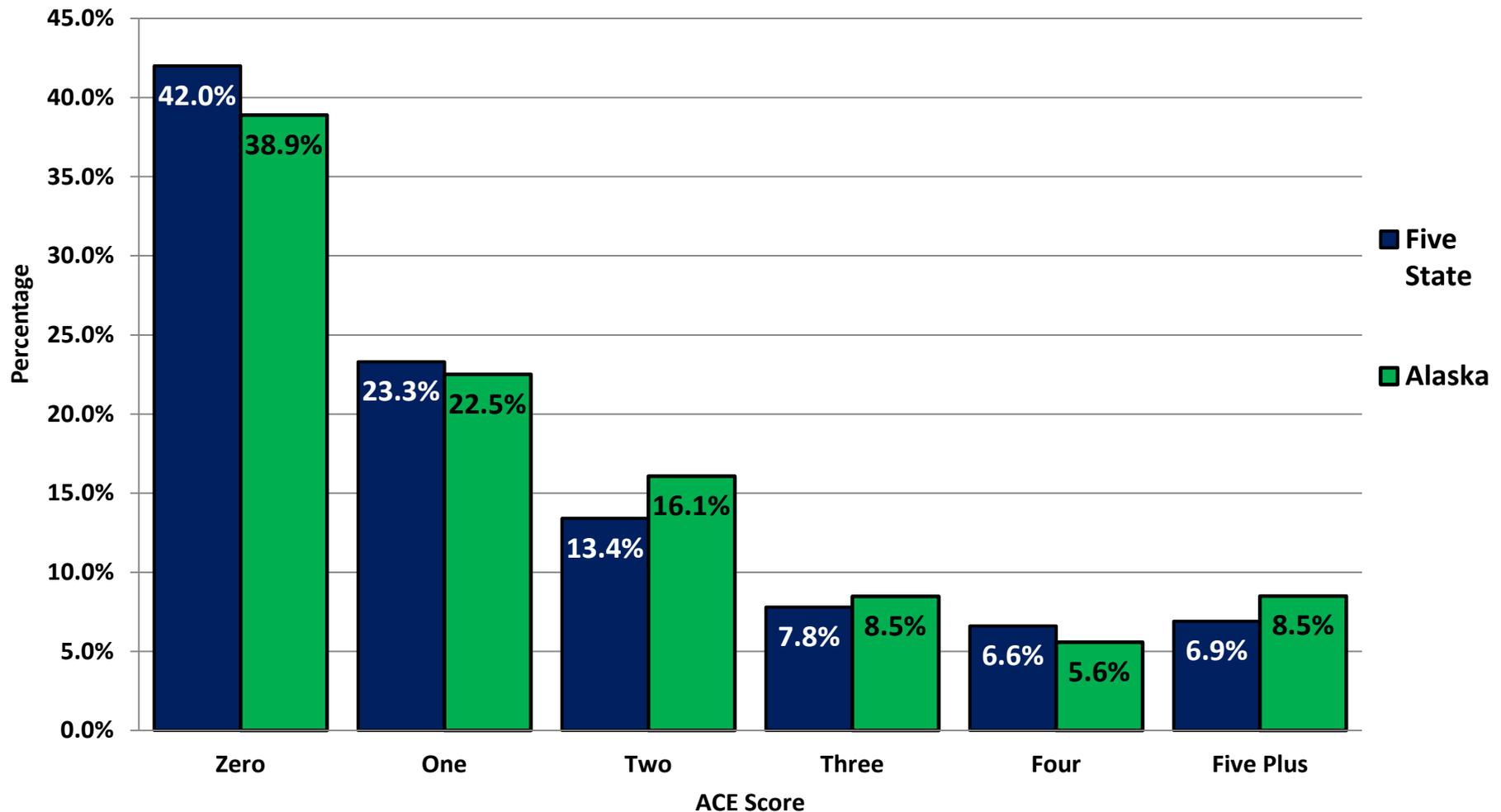
## Adverse Childhood Experiences Scores for Alaskan Adult Females and Their Five State ACE Study Peers



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

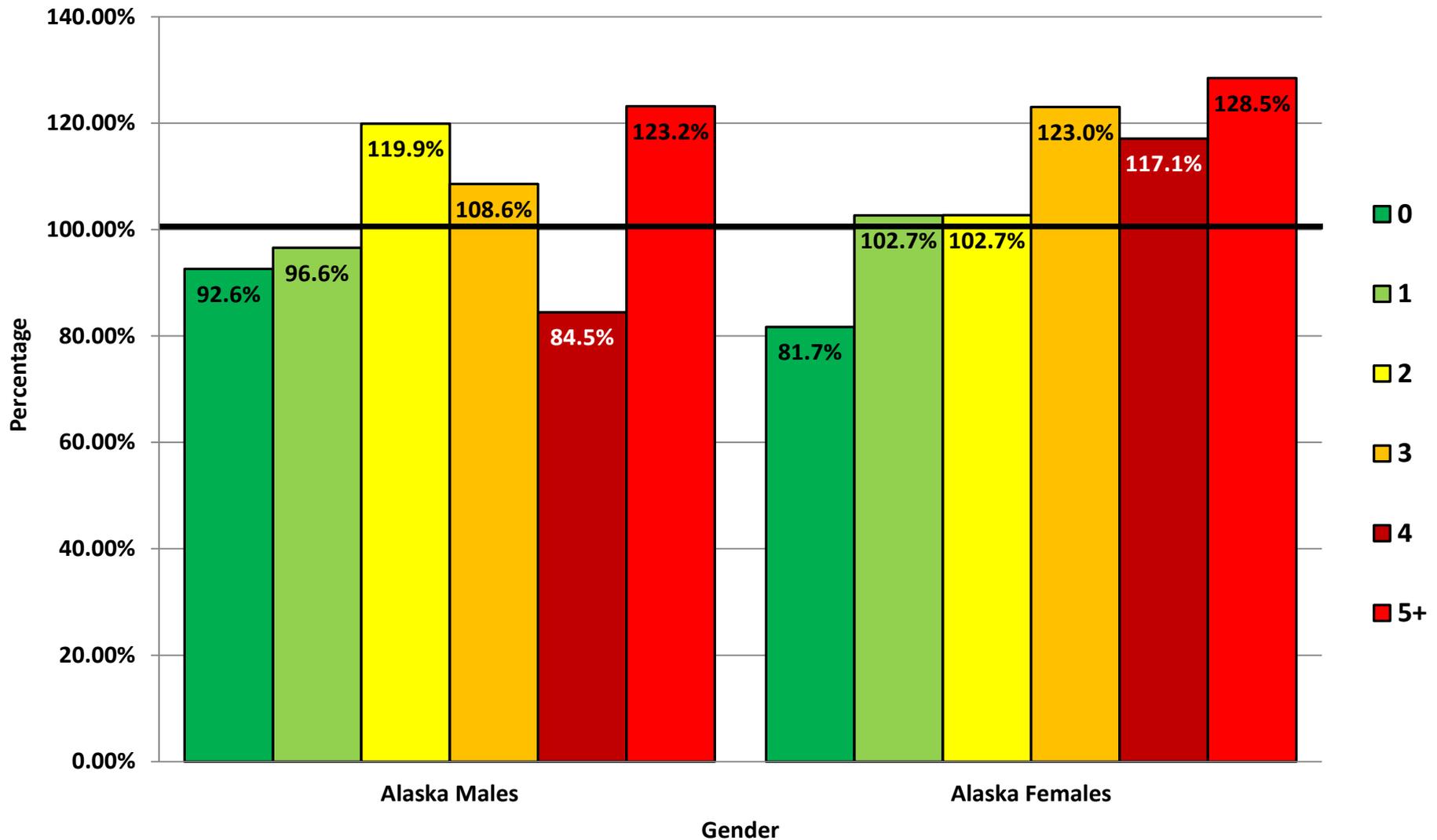
## Adverse Childhood Experiences Scores for Alaskan Adult Males and Their Five State ACE Study Peers



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Alaskan ACE Scores as a Percentage of Five State ACE Scores by Gender



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

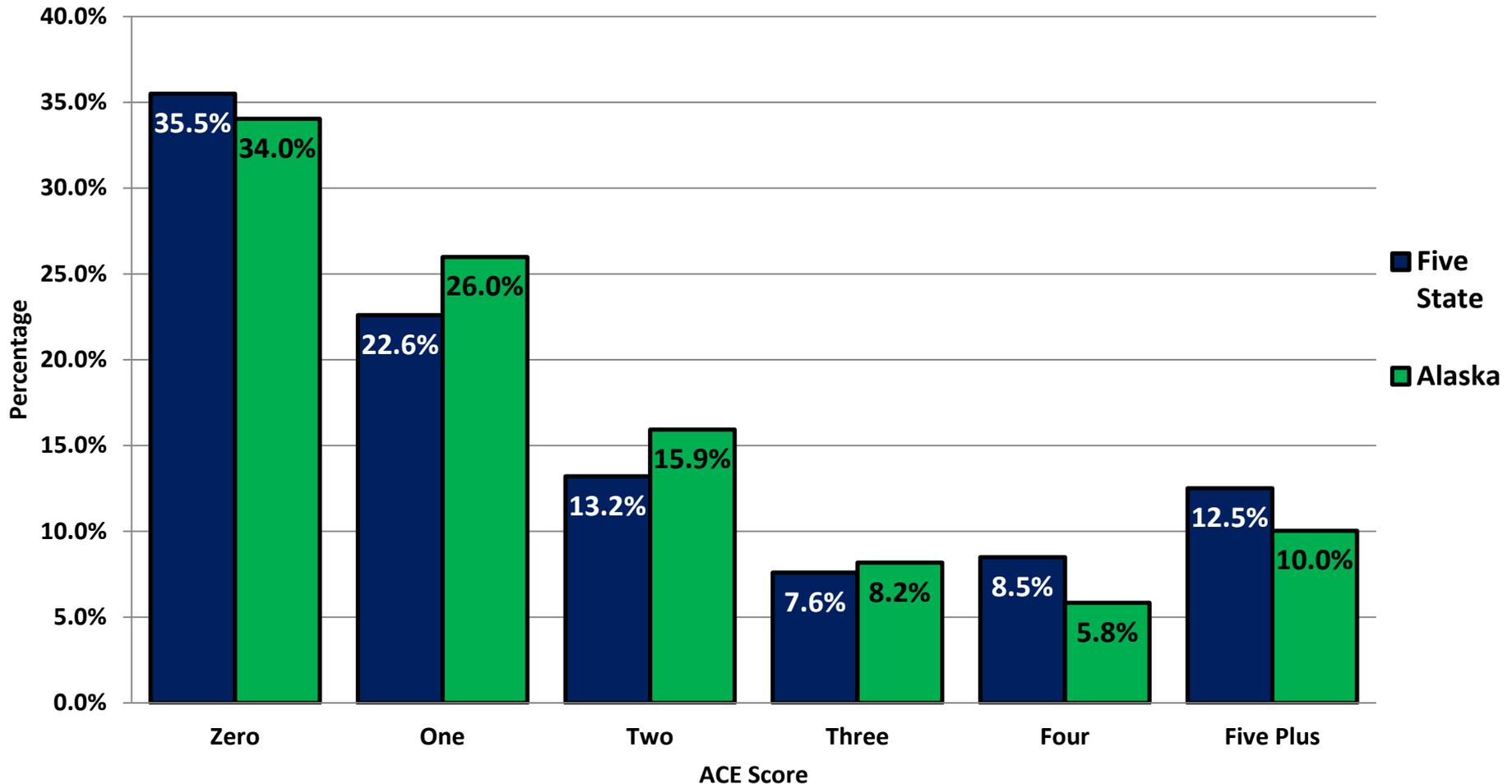
**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults*

--- Five States, 2009, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Generational Differences

- It's hard to compare generations by ACE score
  - Changes in social norms
  - Early death due to high ACE scores
  - Changing social and economic resource levels
  - Education and awareness change over time

## Alaskan Adults Aged 18-24 and Their Five State Peers by ACE Scores\*



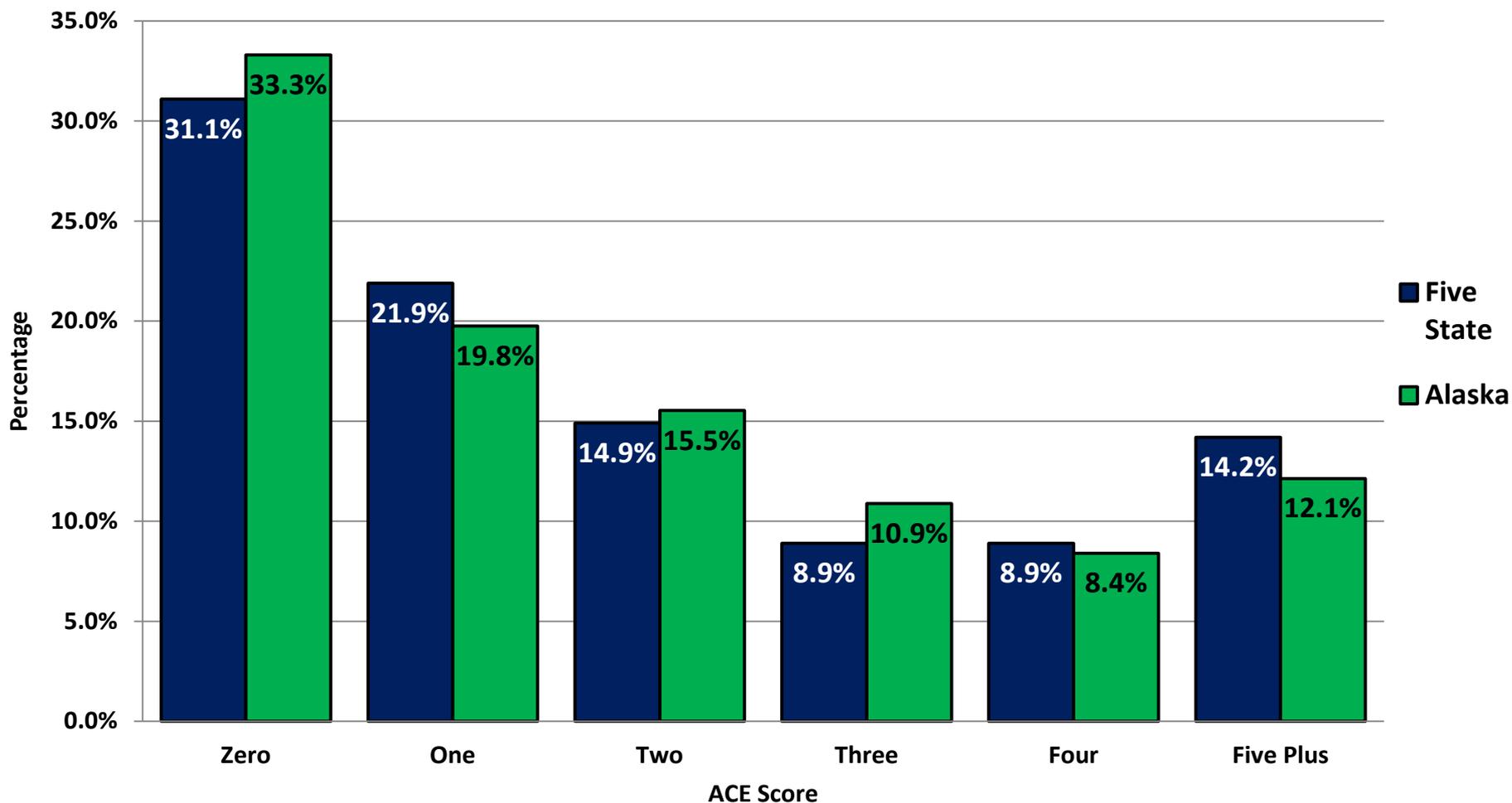
**\*There is no statistical difference between these ACE Scores.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

**Notes:** Sum may not equal 100% due to rounding.

## Alaskan Adults Aged 25-34 and Their Five State Peers by ACE Scores\*



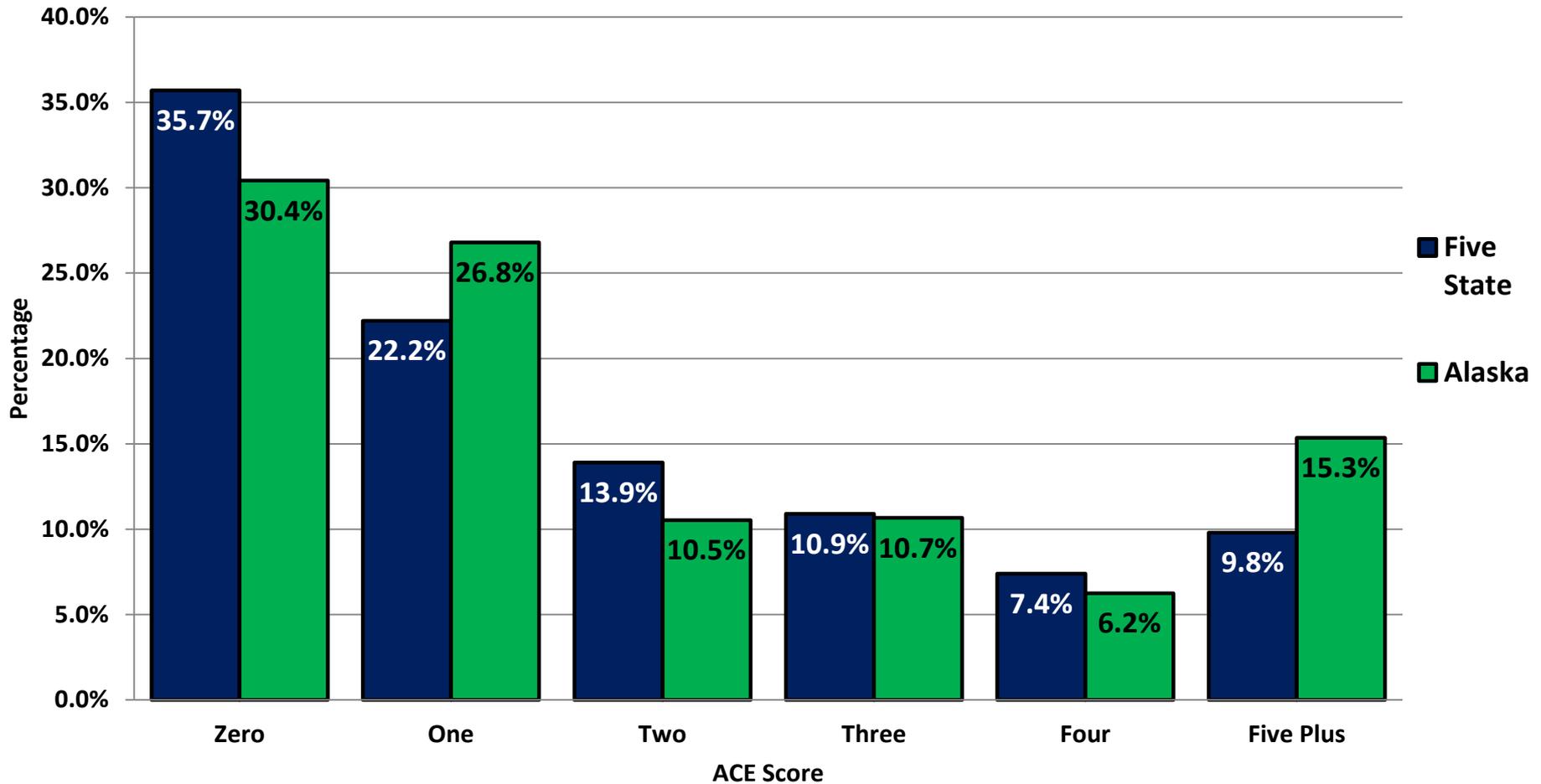
**\*There is no statistical difference between these ACE Scores.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

**Notes:** Sum may not equal 100% due to rounding.

## Alaskan Adults Aged 35-44 and Their Five State Peers by ACE Scores\*



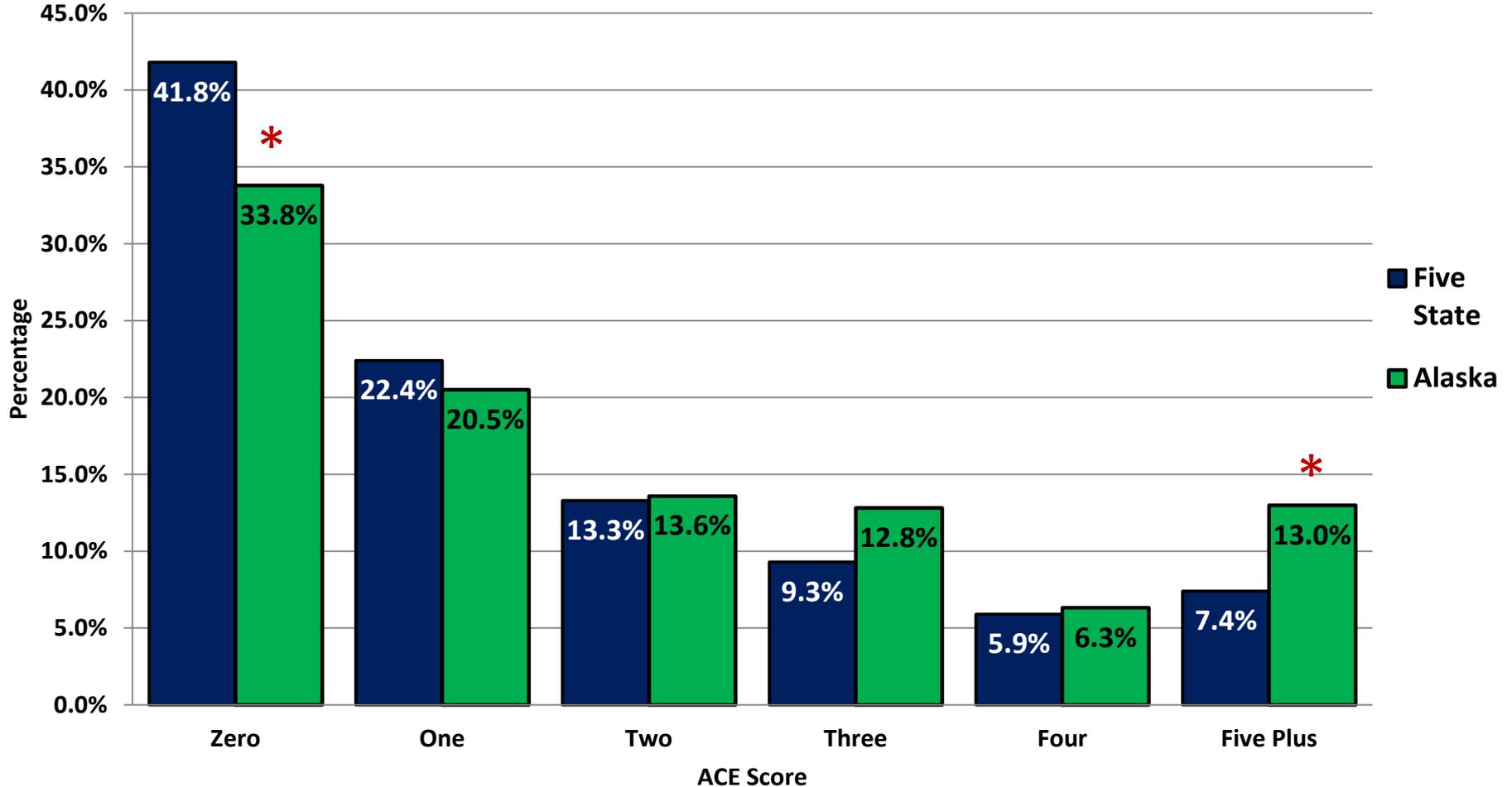
**\*There is no statistical difference between these ACE Scores.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

**Notes:** Sum may not equal 100% due to rounding.

## Alaskan Adults Aged 45-54 and Their Five State Peers by ACE Scores\*



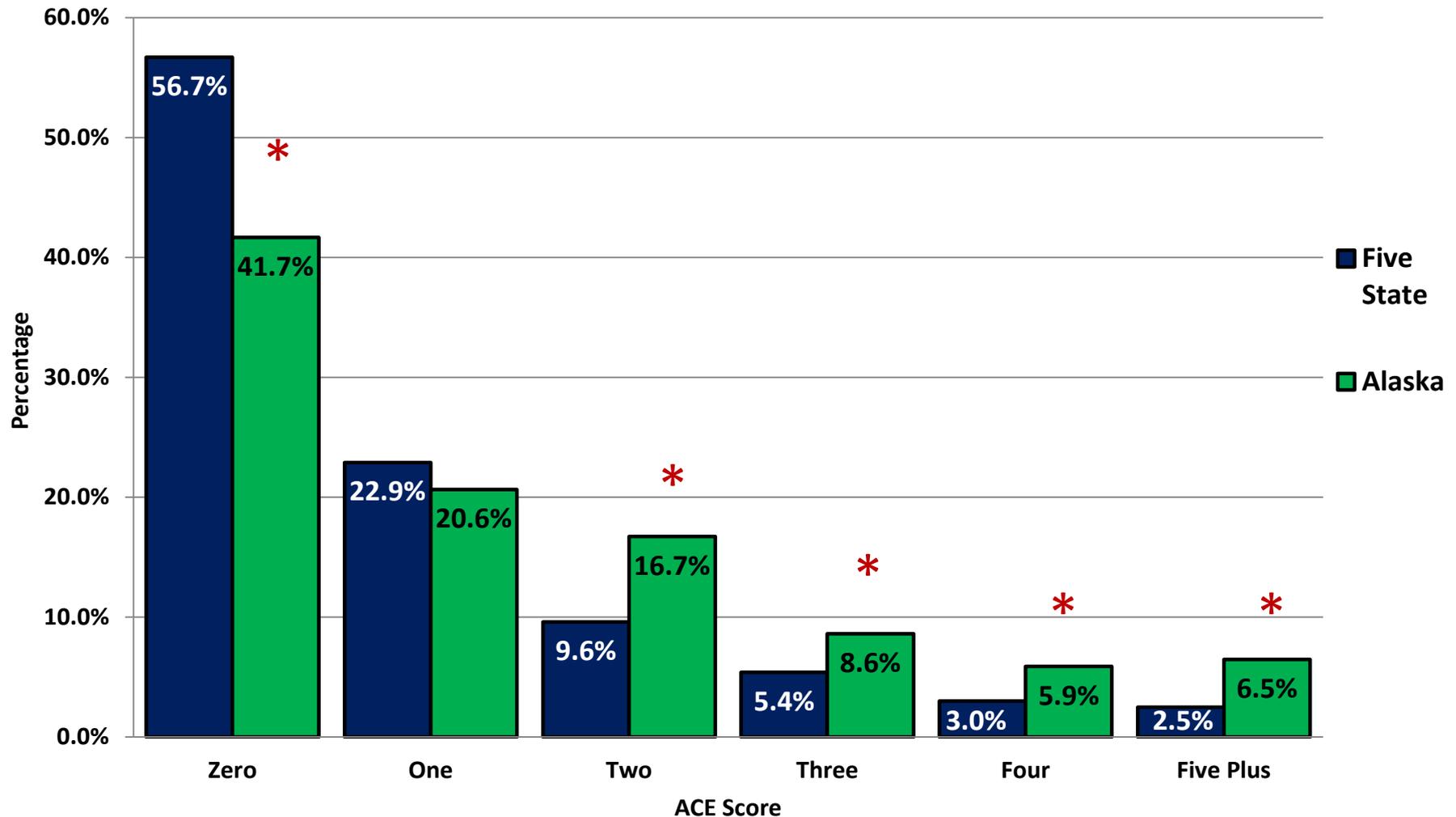
**\*There is a statistically significant difference between the ACE Scores of Zero & Five Plus**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

**Notes:** Sum may not equal 100% due to rounding..

## Alaskan Adults Aged 55 Plus and Their Five State Peers by ACE Scores\*



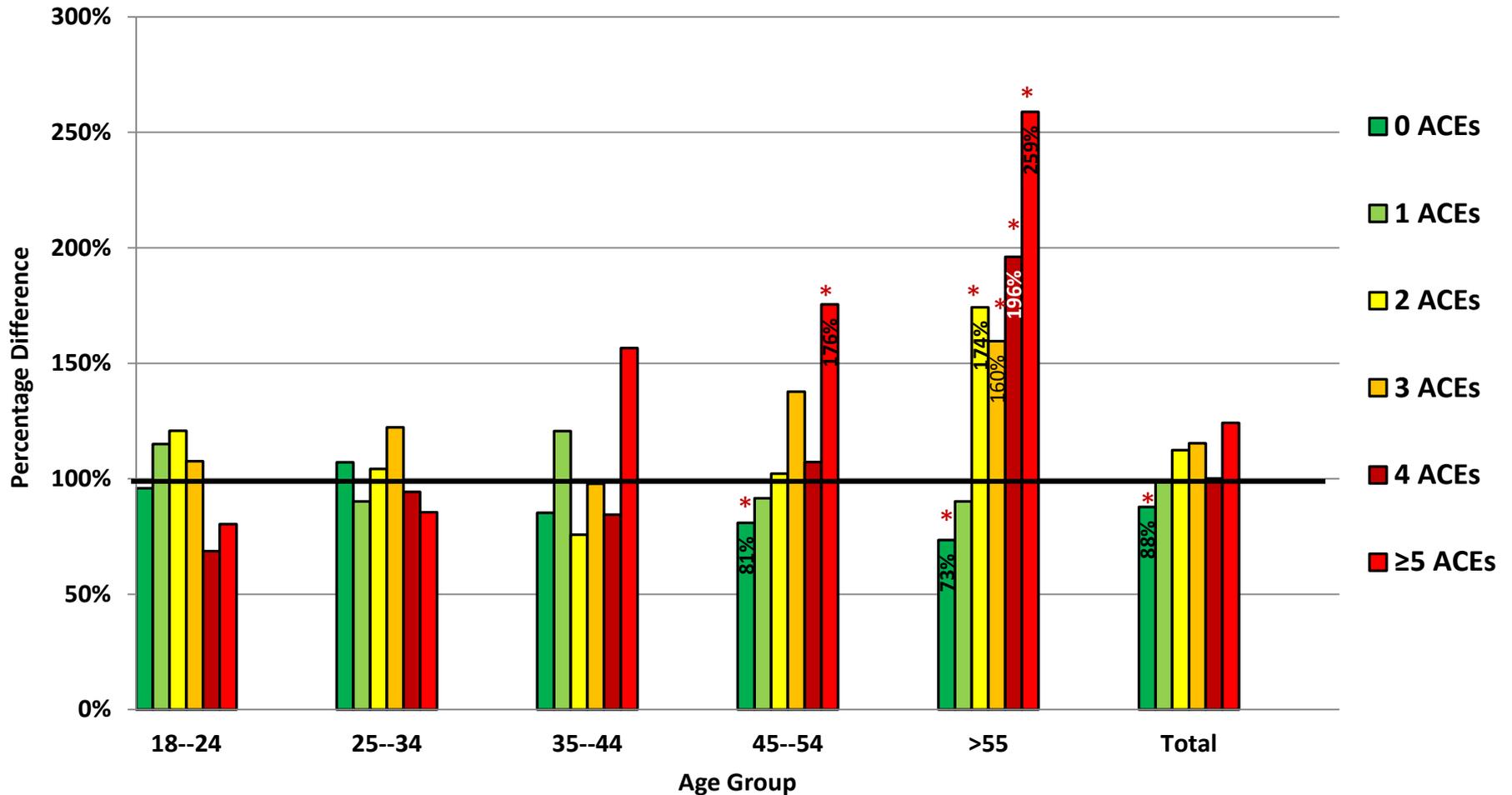
**\*There is a statistical difference between all the ACE Scores but the score of “one”.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

**Notes:** Sum may not equal 100% due to rounding.

## Percentage Difference Between Alaska and Five State ACE Scores by Age Group\*



\*Columns with numbers are statistically significantly different between the two studies

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

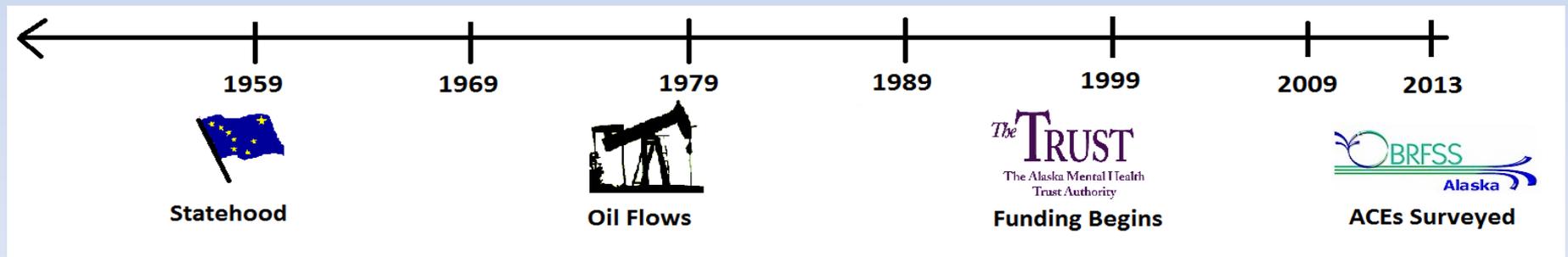
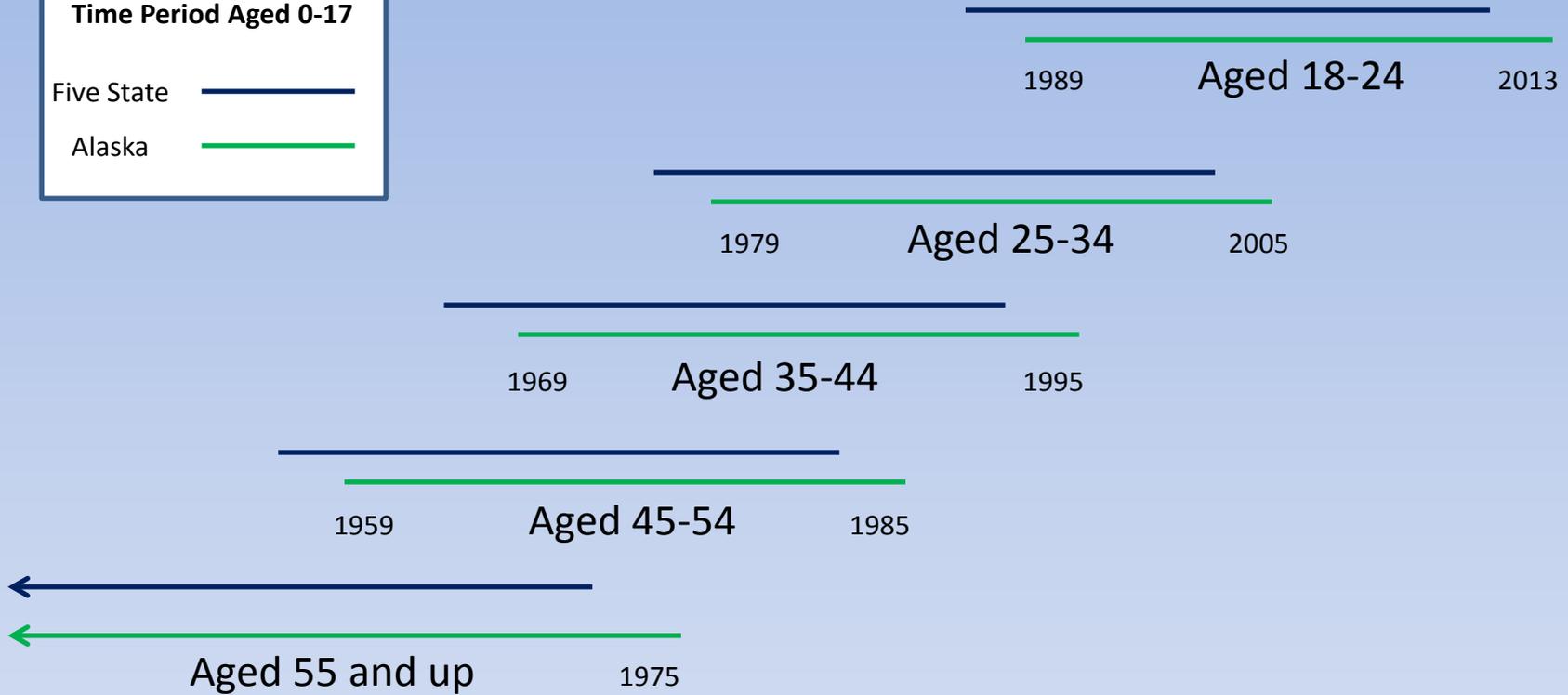
Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Generations on an Alaskan Timeline

**Time Period Aged 0-17**

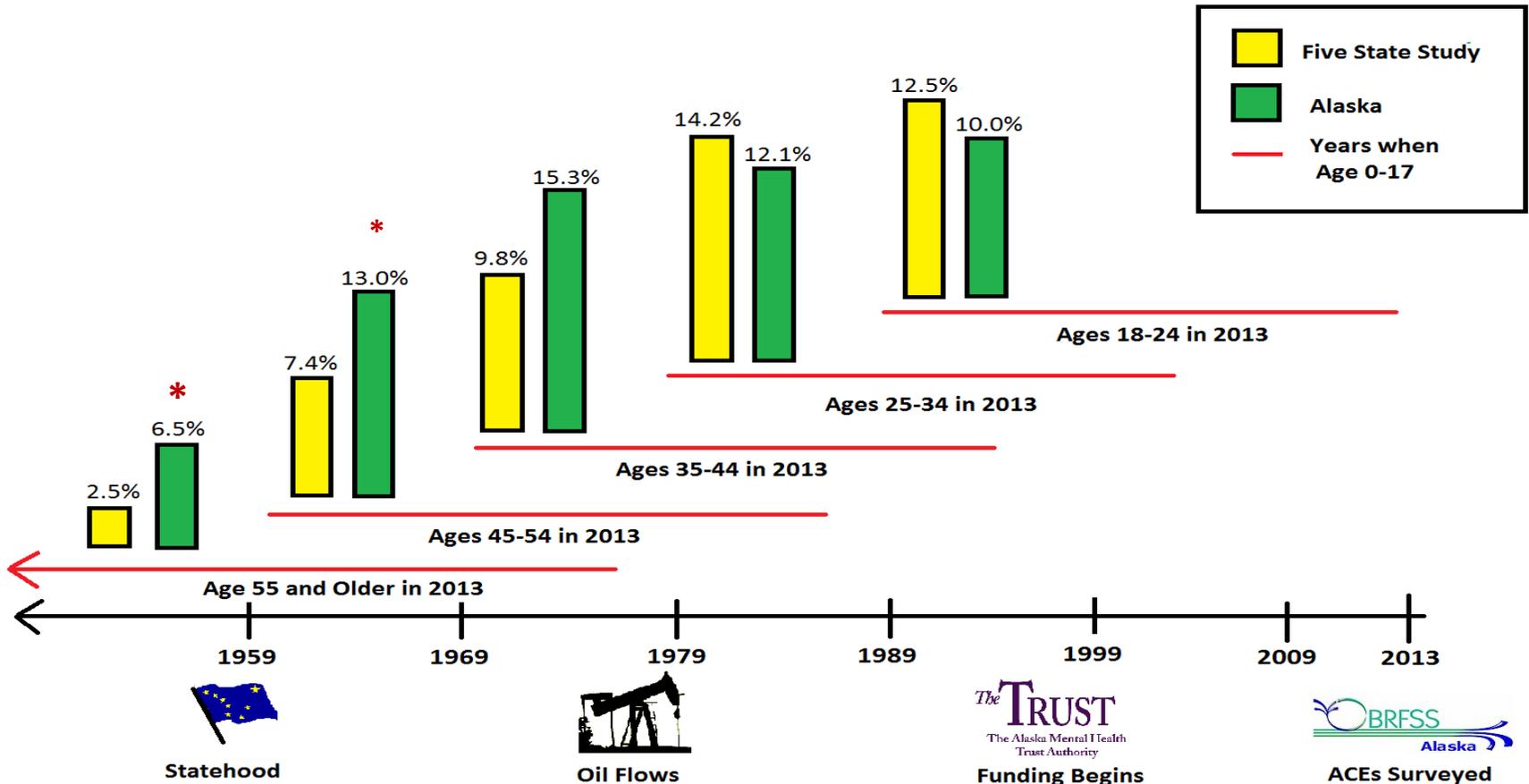
Five State 

Alaska 



# Alaskan ACE Timeline

## Five Plus ACEs as Reported by Adults in the BRFSS \*



\* There is a statistical difference between the two geographic regions for the 45-54 & 55+ age groups.

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Abuse

- 1. Physical**
- 2. Sexual**
- 3. Verbal/Emotional**

<b>Adverse Childhood Experience*</b>	<b>Alaska</b>	<b>Arkansas</b>	<b>Louisiana</b>	<b>New Mexico</b>	<b>Tennessee</b>	<b>Washington</b>
<b><u>Abuse</u></b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Emotional</b>	<b>31.0</b>	<b>24.3</b>	<b>21.1</b>	<b>28.1</b>	<b>19.2</b>	<b>34.9</b>
<b>Physical</b>	<b>19.1</b>	<b>14.1</b>	<b>10.5</b>	<b>19.5</b>	<b>12.9</b>	<b>18.1</b>
<b>Sexual</b>	<b>14.8</b>	<b>10.9</b>	<b>9.9</b>	<b>12.9</b>	<b>12.7</b>	<b>13.5</b>

**\*Percentages in red are the highest of the states compared.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Physical Abuse

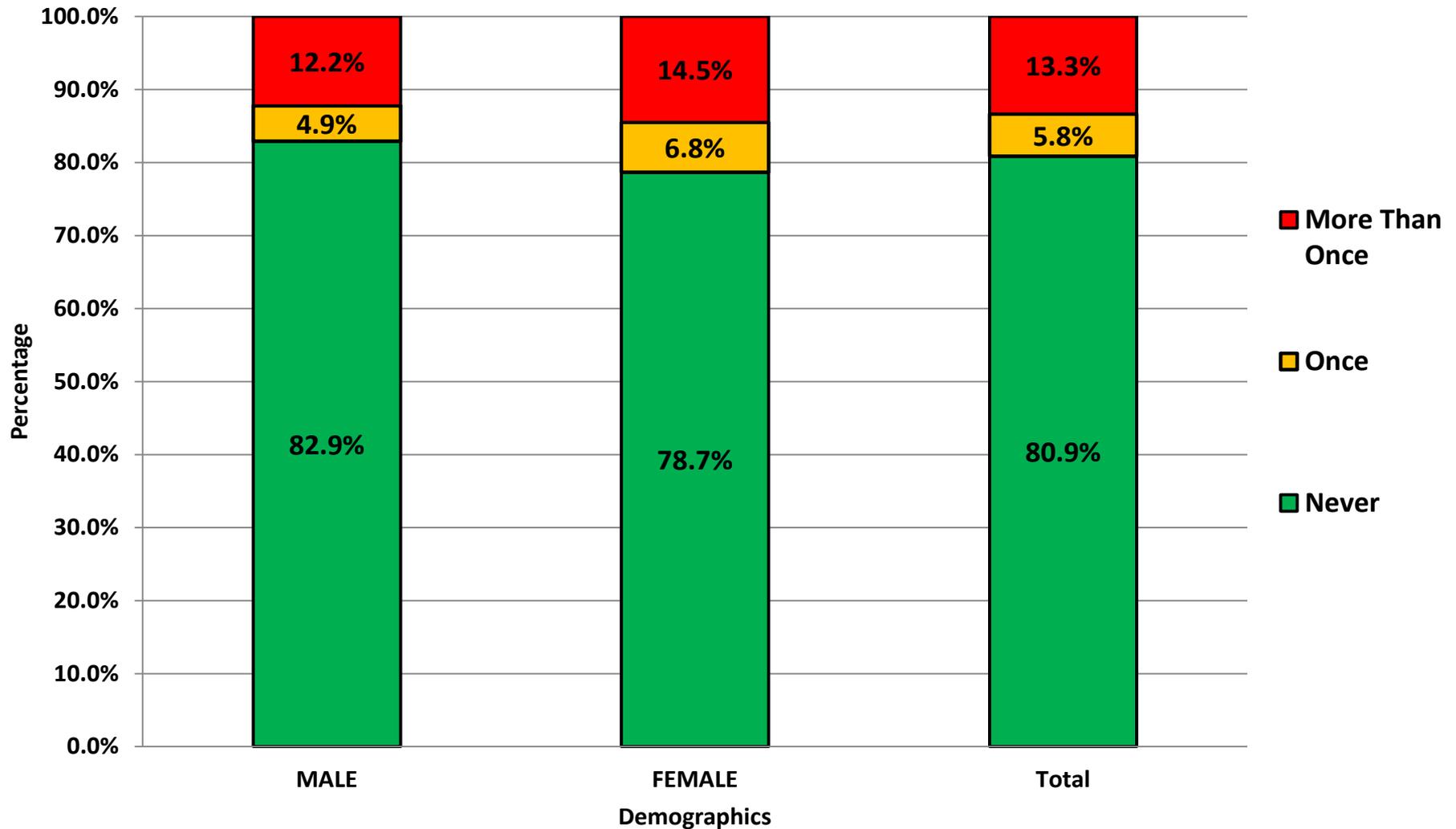
## The Question

- **BEFORE AGE 18, HOW OFTEN DID A PARENT OR ADULT IN HOME EVER HIT, BEAT, KICK OR PHYSICALLY HURT YOU?**

## The Answers

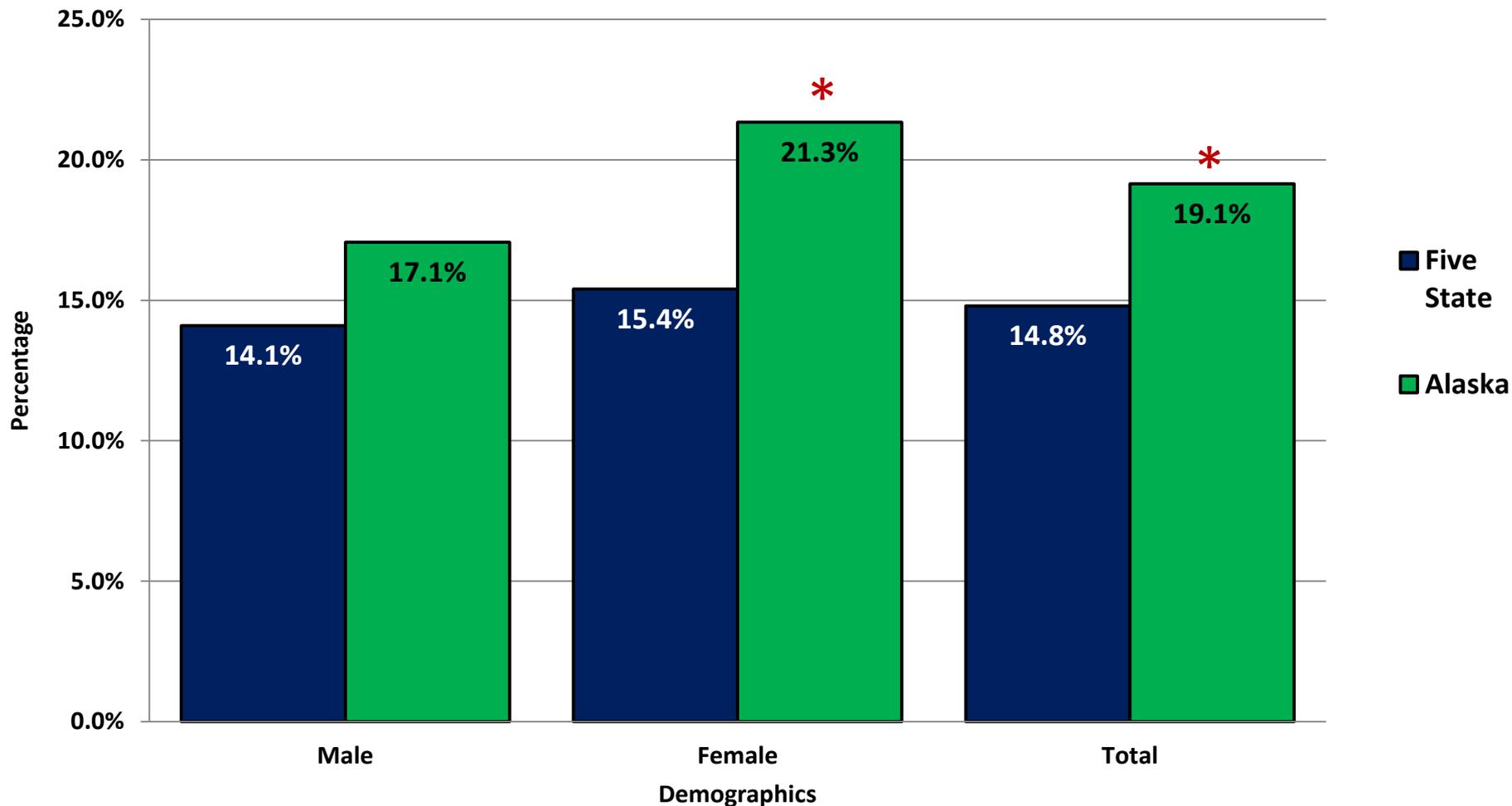
- **ONCE**
- **MORE THAN ONCE**
- **NEVER**
- **If answered “once” or “more than once” then ACE Score = 1**

## Physical Abuse Prior to Age 18 as Reported by Alaskan Adults



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

## Physical Abuse Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

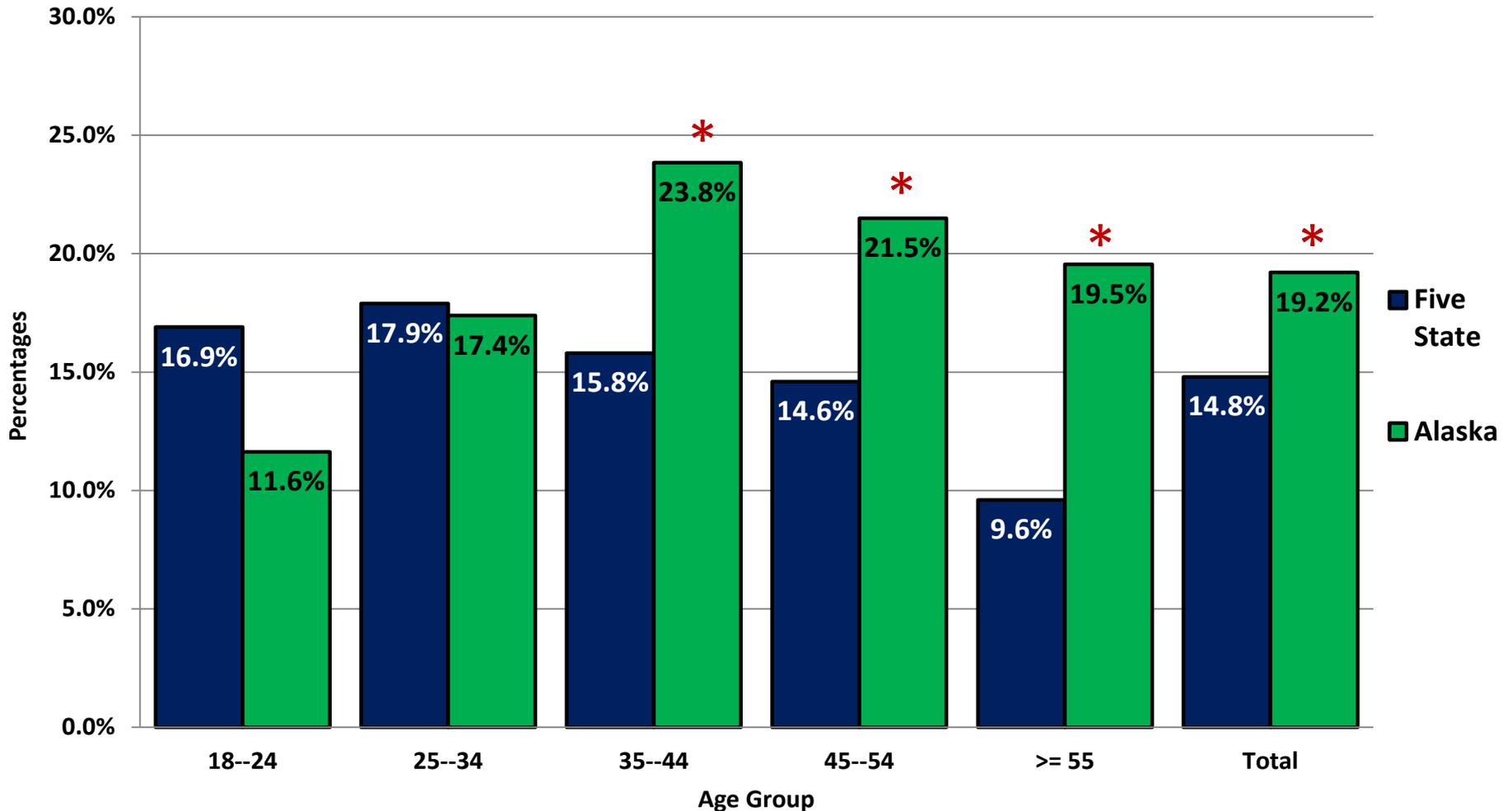


\* There is a statistically significant difference between Female and Total categories above.

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Physical Abuse Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

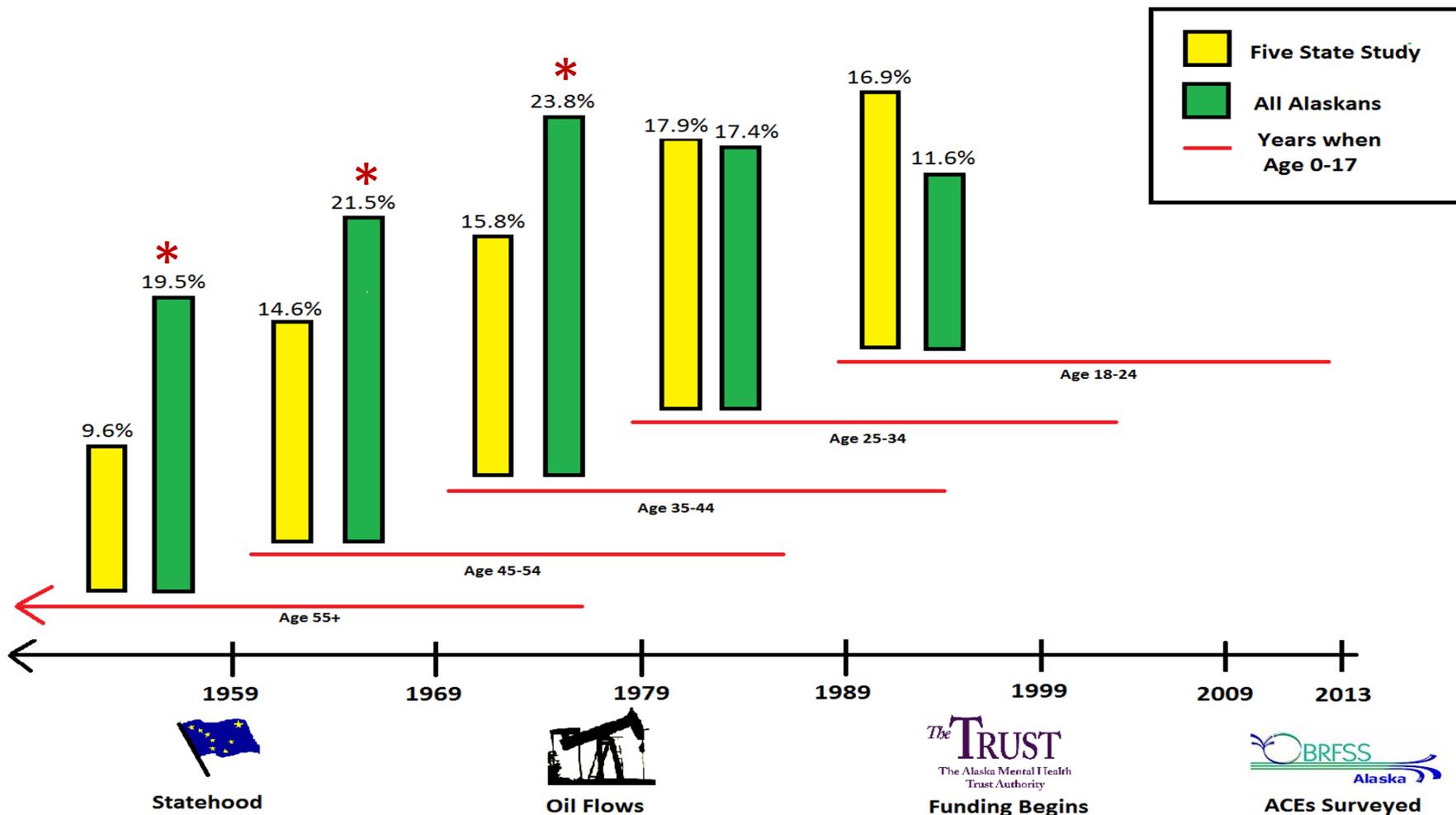


\* The differences between the 35-44, 45-54, 55+ age groups as well as the total are statistically significant.

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Physical Abuse Prior to Age 18 as Reported by Alaskan Adults and Their Peers in a Five State Study by Age Group\*



**The differences between the 35-44, 45-54, 55+ age groups are statistically significant.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Sexual Abuse

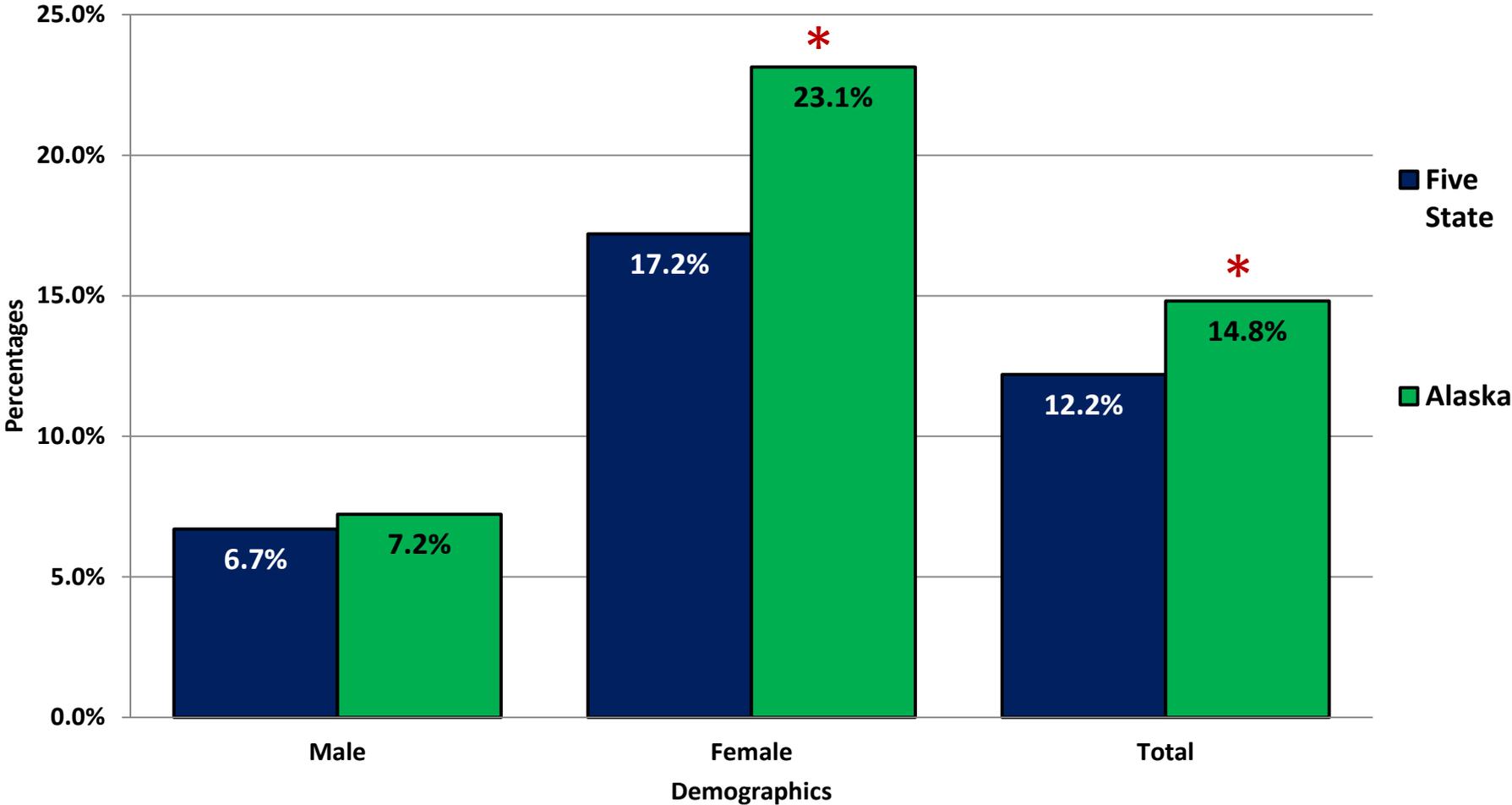
## The Questions

- **BEFORE AGE 18, HOW OFTEN DID ANYONE AT LEAST 5 YRS OLDER EVER TOUCH YOU SEXUALLY?**
- **BEFORE AGE 18, HOW OFTEN DID ANYONE AT LEAST 5 YRS OLDER EVER TRY TO MAKE YOU TOUCH THEM SEXUALLY?**
- **BEFORE AGE 18, HOW OFTEN DID ANYONE AT LEAST 5 YRS OLDER FORCE YOU TO HAVE SEX?**

## The Answers

- **ONCE**
- **MORE THAN ONCE**
- **NEVER**
- **If answered “once” or “more than once” to any of the questions than ACE Score = 1**

# Sexual Abuse Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

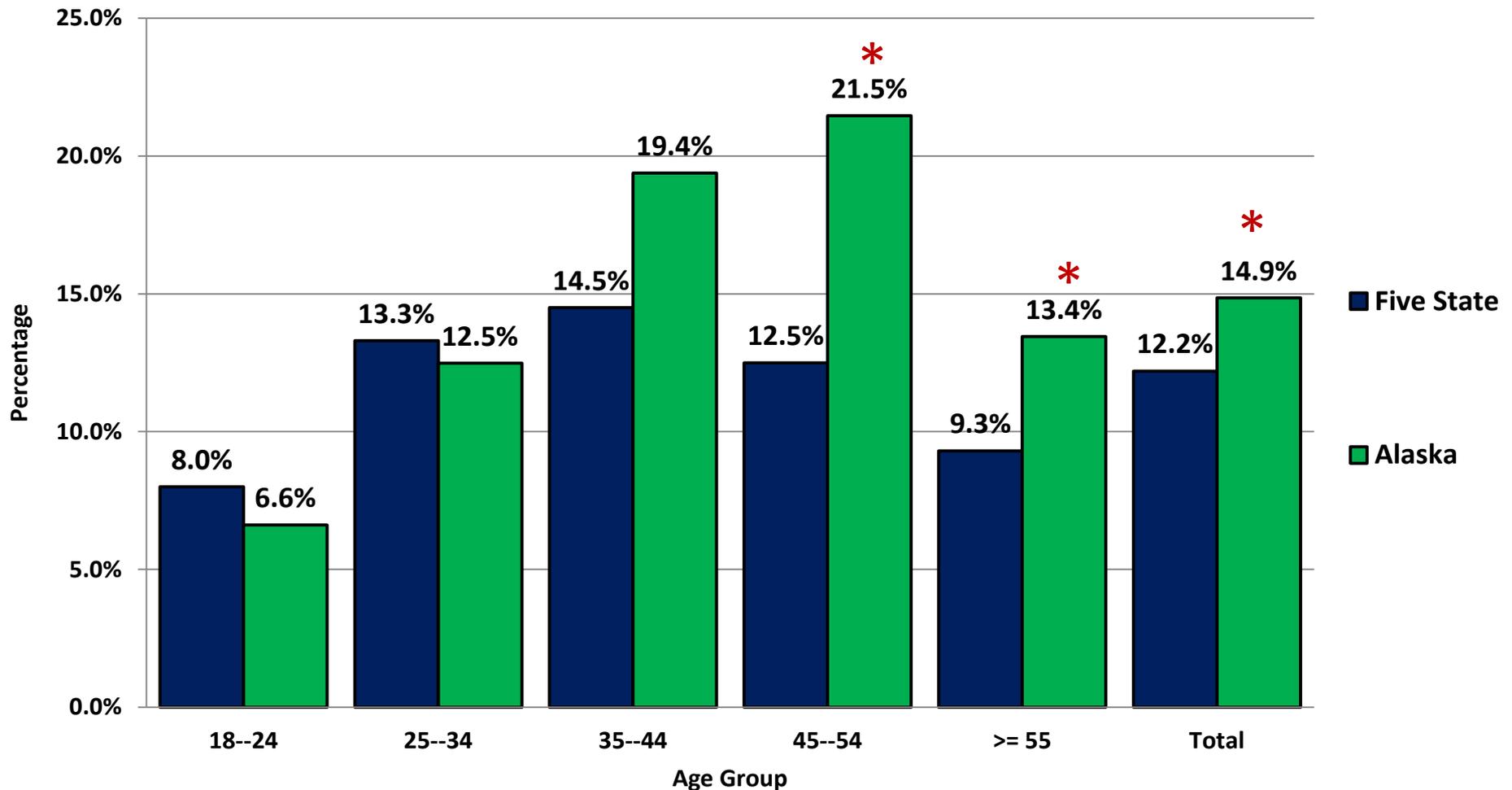


\* There is a statistically significant difference between Female and Total categories above.

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults* --- Five States, 2009, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Sexual Abuse Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*



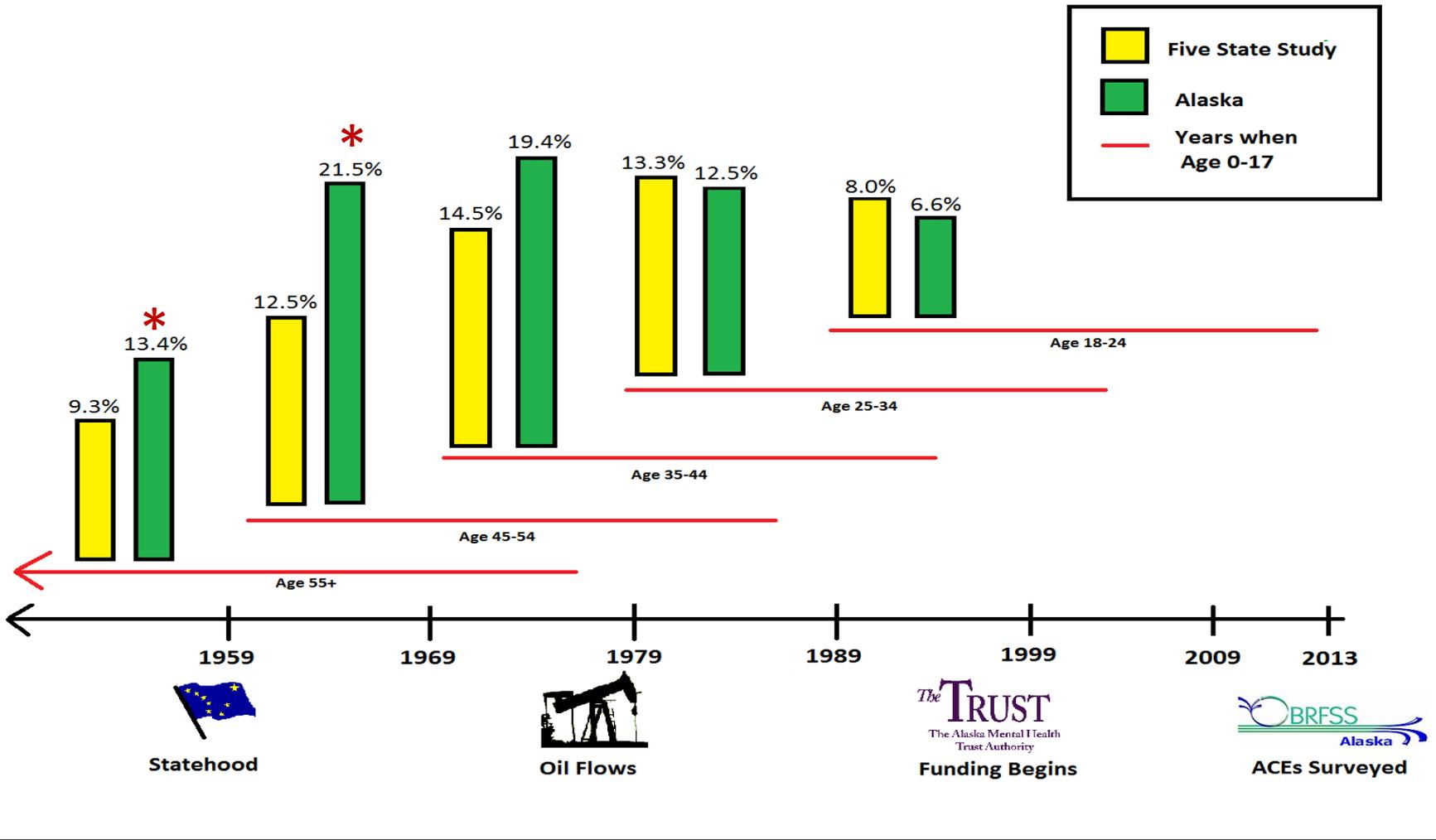
\* The difference in age groups 45-54, 55+ as well as the total are statistically significant

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults*

--- Five States, 2009, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Sexual Abuse Prior to Age 18 as Reported by Alaskan Adults and Their Peers in a Five State Study by Age Group\*



**The difference in age groups 45-54, 55+ are statistically significant**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Verbal/Emotional Abuse

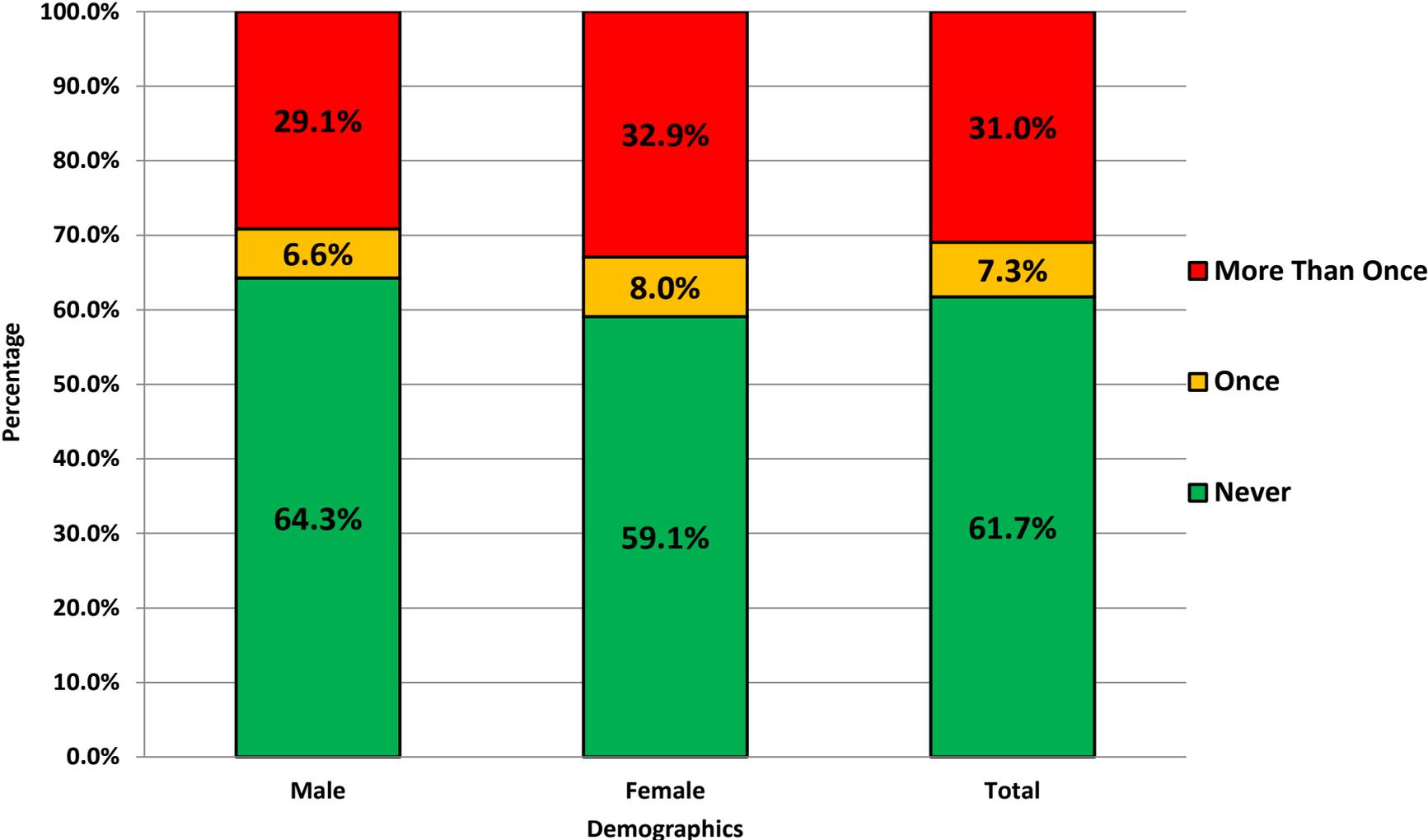
## The Question

- **BEFORE AGE 18, HOW OFTEN DID PARENT OR ADULTS IN HOME EVER SWEAR AT YOU, INSULT YOU OR PUT YOU DOWN?**

## The Answers

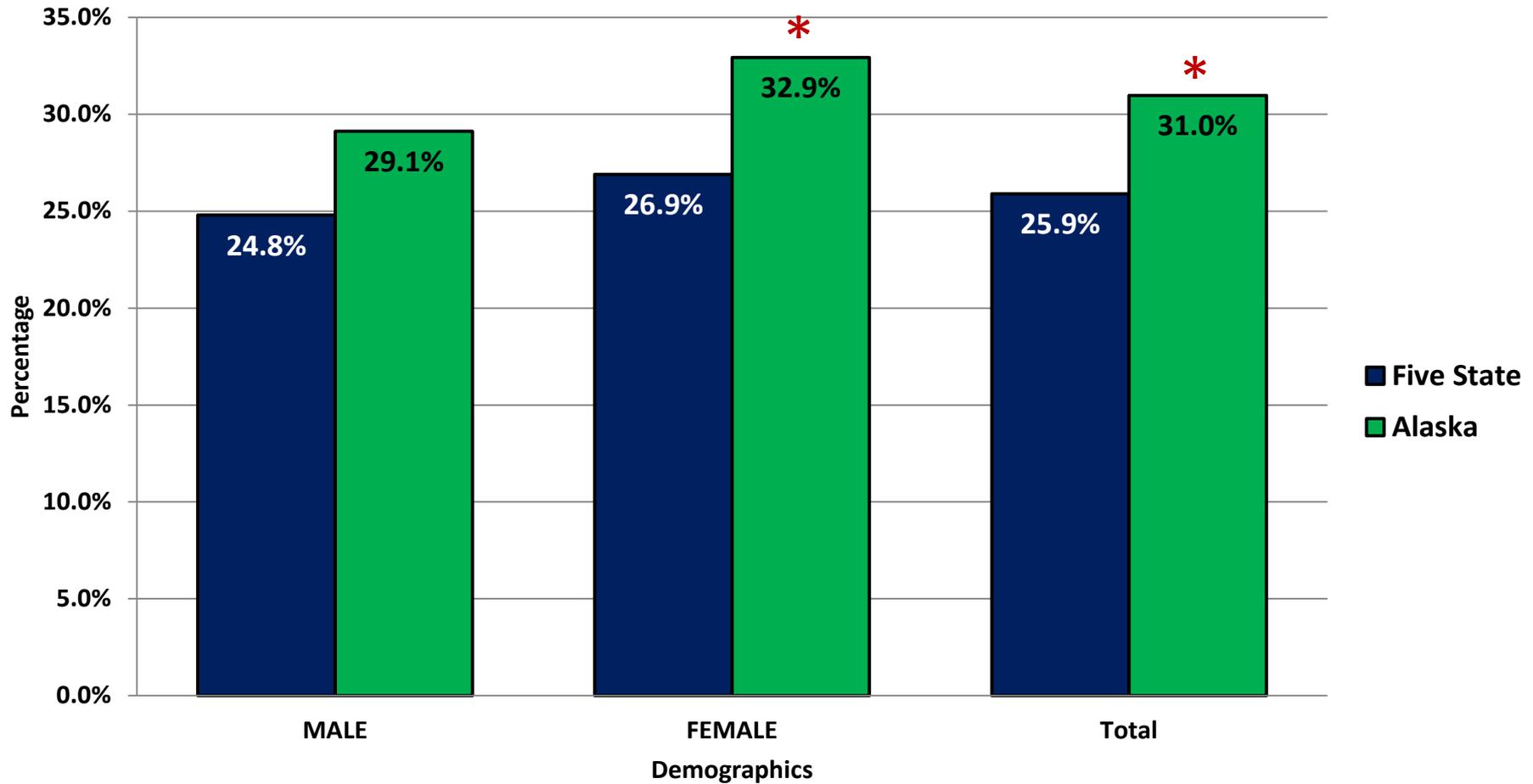
- **ONCE**
- **MORE THAN ONCE**
- **NEVER**
- **If answered “more than once” than ACE = 1**

# Verbal/Emotional Abuse Prior to Age 18 as Reported by Alaskan Adults



Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

## Verbal/Emotional Abuse Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*



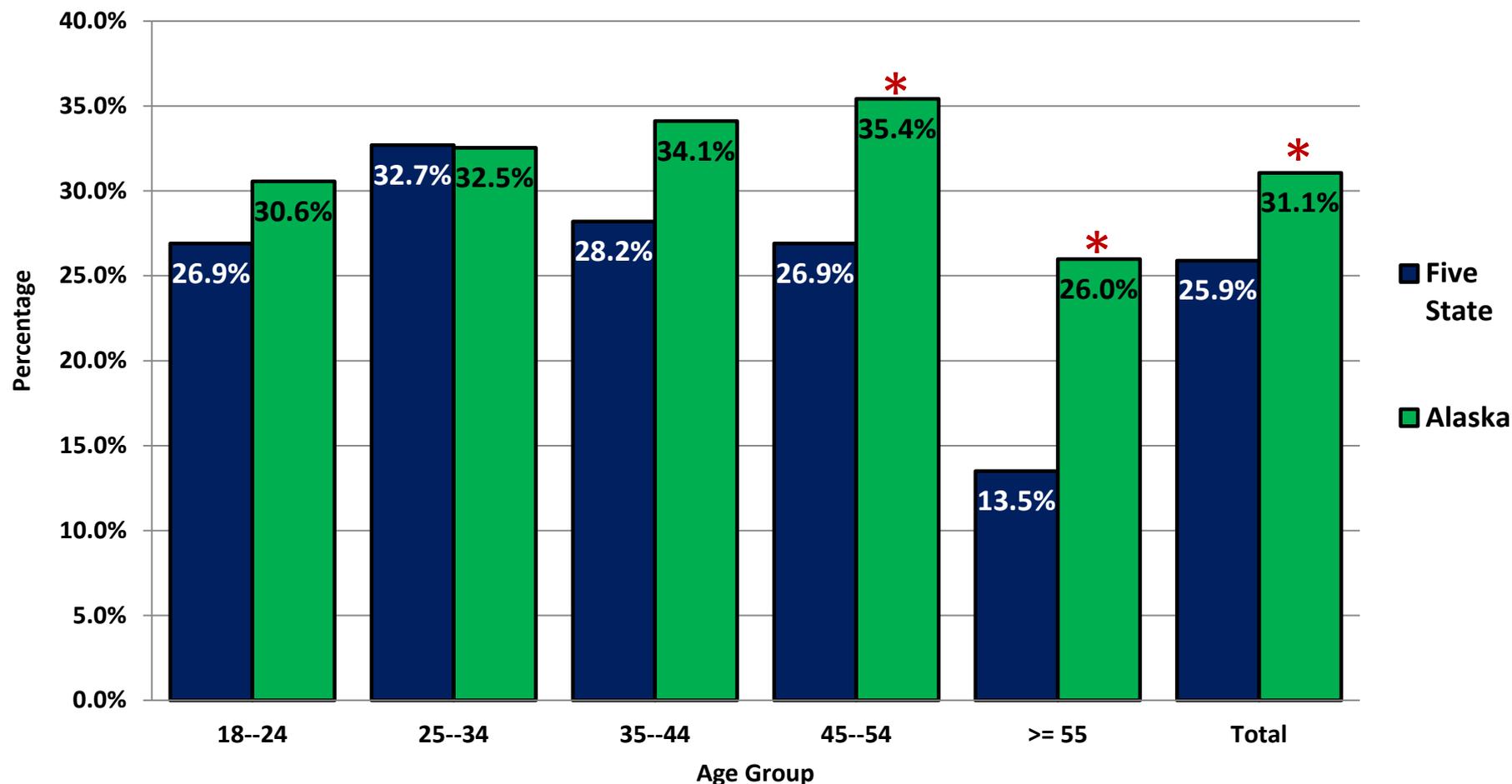
\* There is a statistically significant difference between FEMALE and Total categories above.

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults*

--- Five States, 2009, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Verbal/Emotional Abuse Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

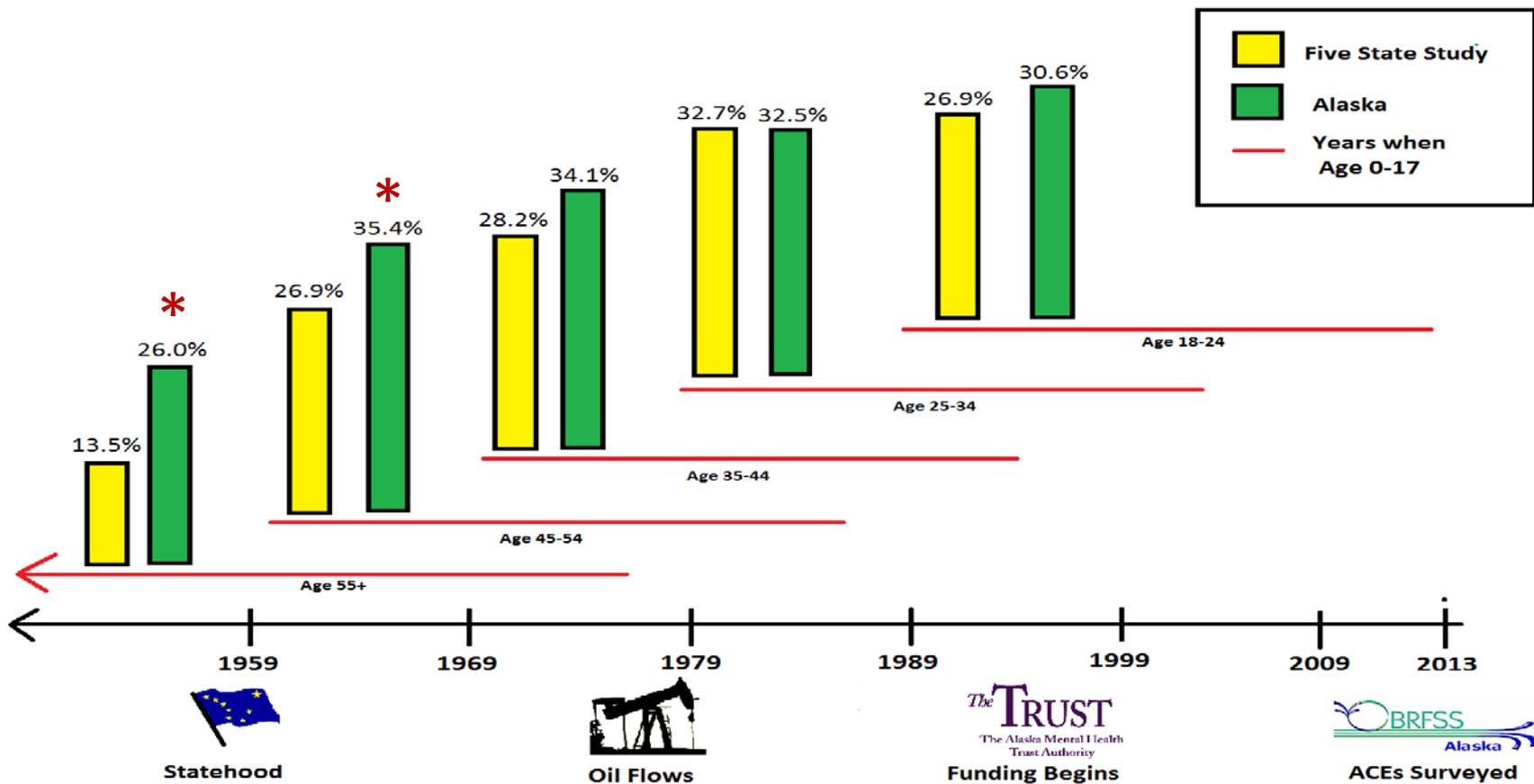


\* The difference in age groups 45-54, 55+ as well as the total are statistically significant

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Verbal Abuse Prior to Age 18 as Reported by Alaskan Adults and Their Peers in a Five State Study by Age Group\*



**\*The difference in age groups 45-54, 55+ are statistically significant**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Household Dysfunction

- 4. Mental Illness in the Household**
- 5. Substance Abuse in the Household**
- 6. Witnessing Domestic Violence**
- 7. Separation/Divorce**
- 8. Household Member in Prison**

<b>Adverse Childhood Experience*</b>	<b>Alaska</b>	<b>Arkansas</b>	<b>Louisiana</b>	<b>New Mexico</b>	<b>Tennessee</b>	<b>Washington</b>
<b><u>Household Dysfunction</u></b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Mental Illness in the Home</b>	<b>21.9</b>	<b>17.0</b>	<b>16.6</b>	<b>19.4</b>	<b>17.1</b>	<b>24.3</b>
<b>Incarcerated Family Member</b>	<b>11.5</b>	<b>5.5</b>	<b>7.2</b>	<b>7.1</b>	<b>8.6</b>	<b>6.6</b>
<b>Substance Abuse in Home</b>	<b>33.8</b>	<b>25.5</b>	<b>26.6</b>	<b>29.9</b>	<b>28.3</b>	<b>32.7</b>
<b>Separation or Divorce</b>	<b>31.7</b>	<b>23.3</b>	<b>27.1</b>	<b>24.4</b>	<b>29.1</b>	<b>26.0</b>
<b>Witnessed Domestic Violence</b>	<b>18.7</b>	<b>15.1</b>	<b>14.5</b>	<b>18.9</b>	<b>17.1</b>	<b>16.6</b>

**\*Percentages in red are the highest of the states compared.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Household Mental Illness

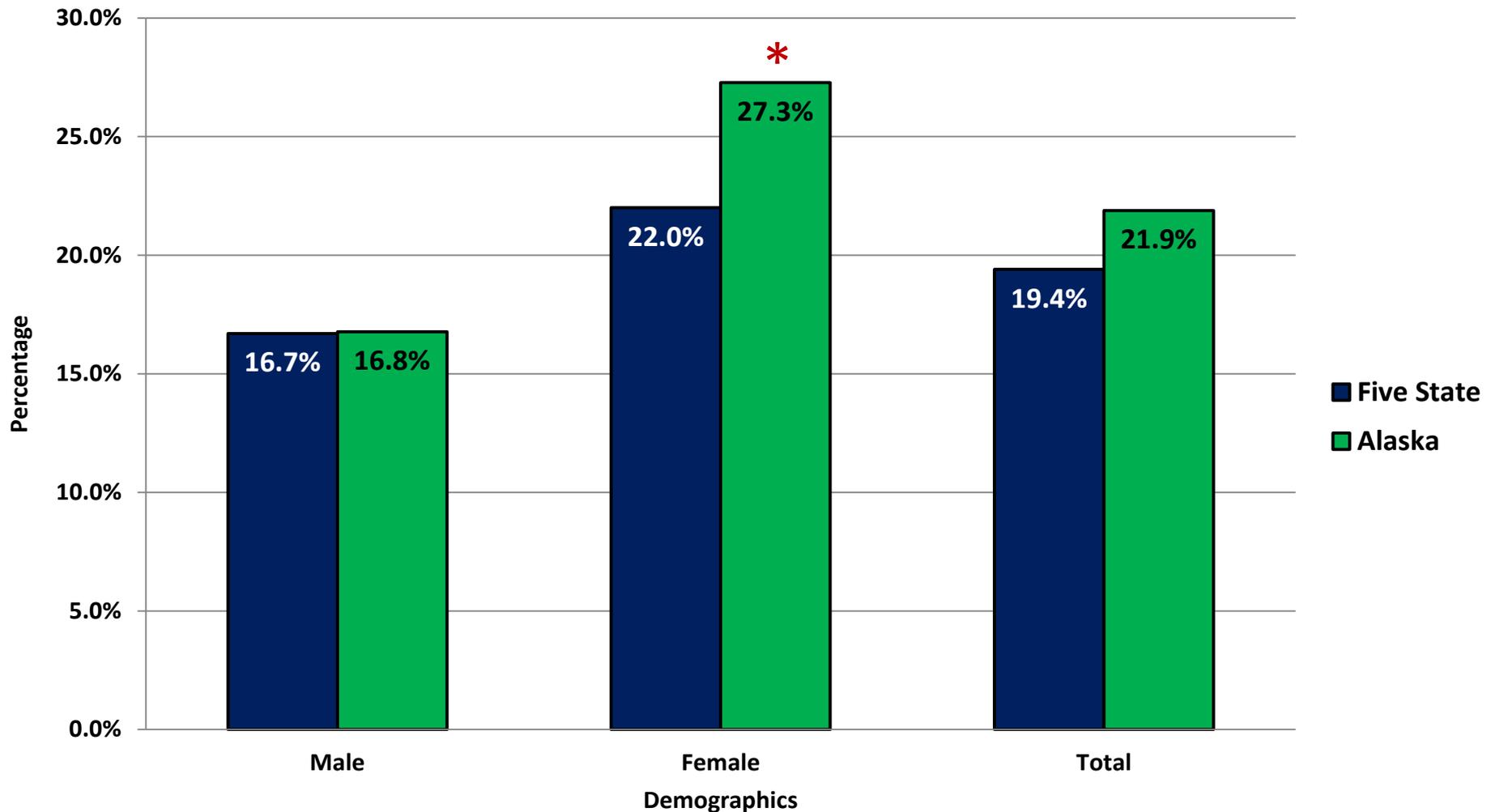
## The Question

**BEFORE AGE 18, DID YOU LIVE WITH ANYONE WHO WAS DEPRESSED, MENTALLY ILL OR SUICIDAL?**

## The Answers

- **Yes**
- **No**
- **If answered “yes” than ACE = 1**

## Exposed to Household Mental Illness Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

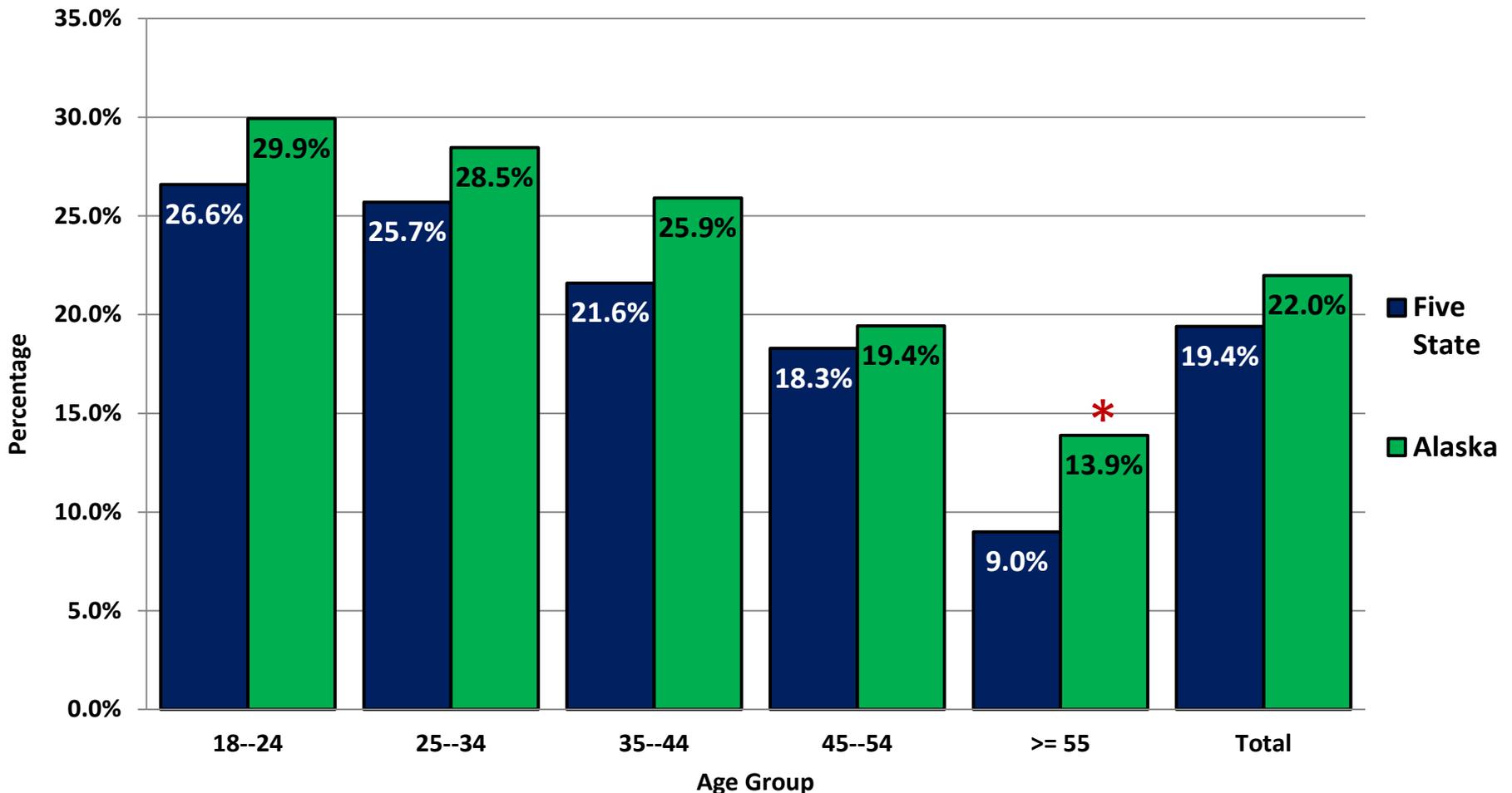


\* The difference in the female demographic is statistically significant

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Exposed to Household Mental Illness Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

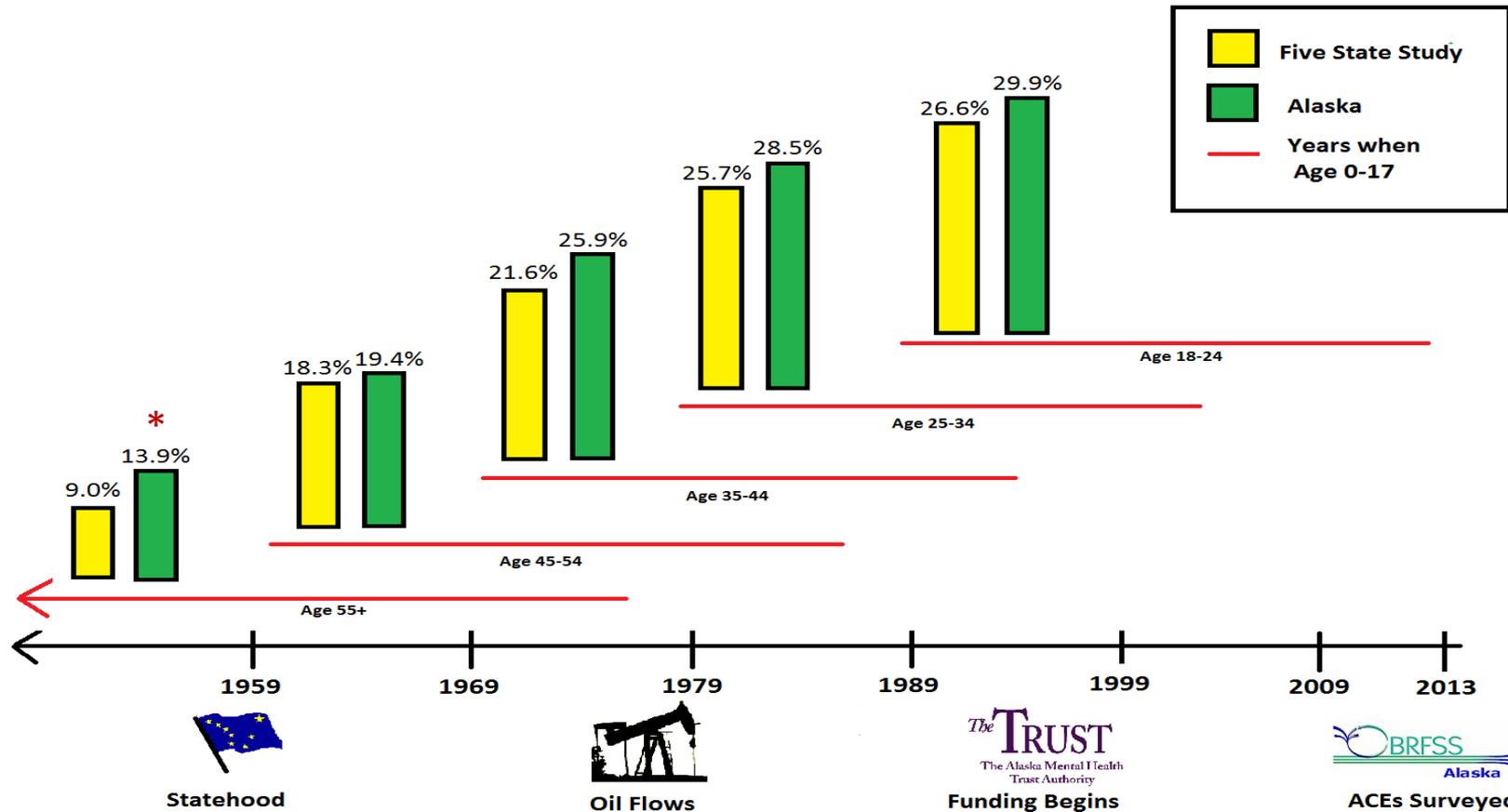


**\* The difference in age group 55+ is statistically significant**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Exposed to Household Mental Illness Prior to age 18 as Reported by Adults in Alaska and In a Five State Study by Age Group\*



\* The difference in age group 55+ is statistically significant

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Witnessing Domestic Violence

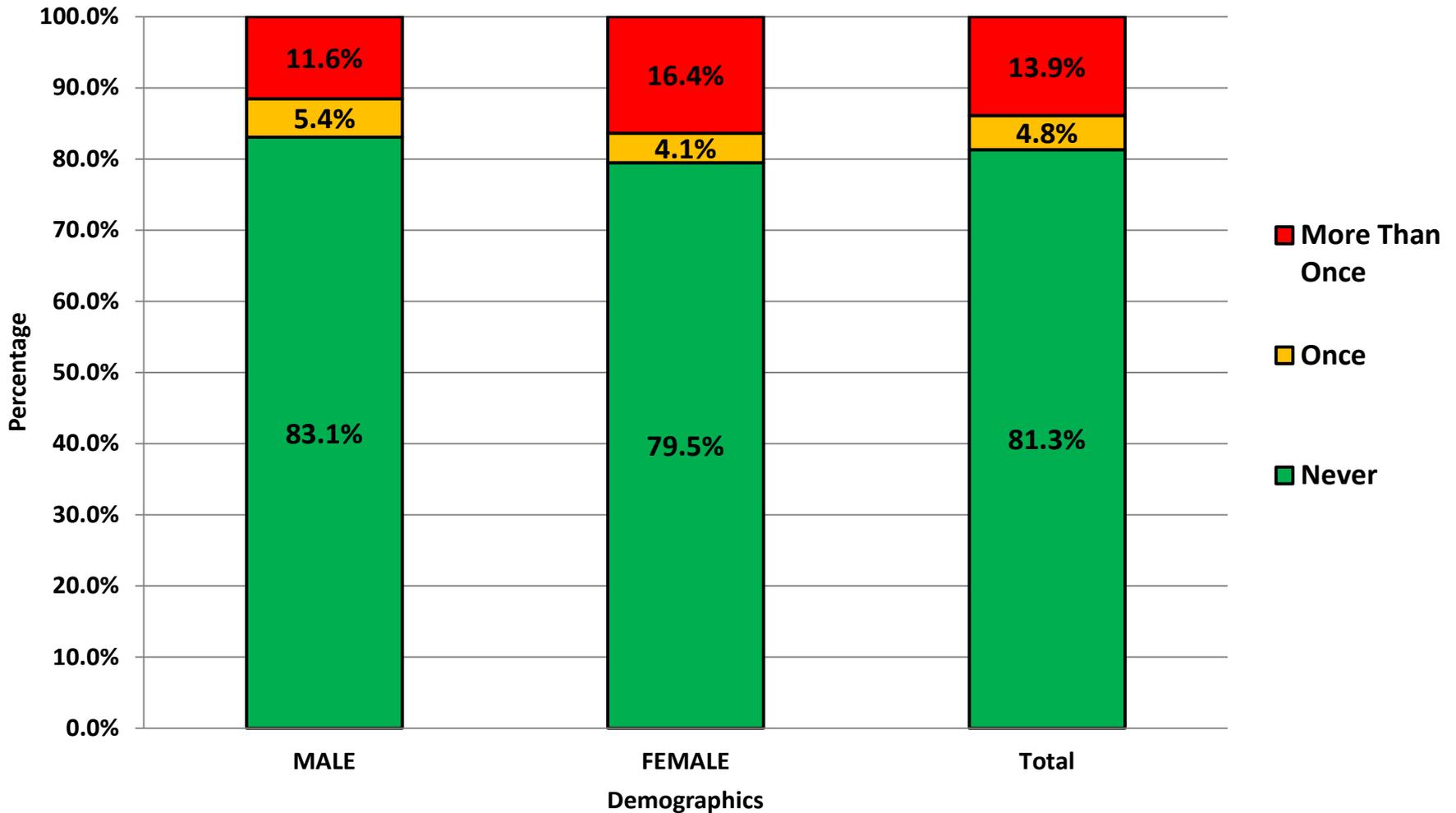
## The Question

- **BEFORE AGE 18, HOW OFTEN DID YOUR PARENTS OR ADULTS IN HOME EVER SLAP, HIT, KICK, PUNCH OR BEAT EACH OTHER UP?**

## The Answers

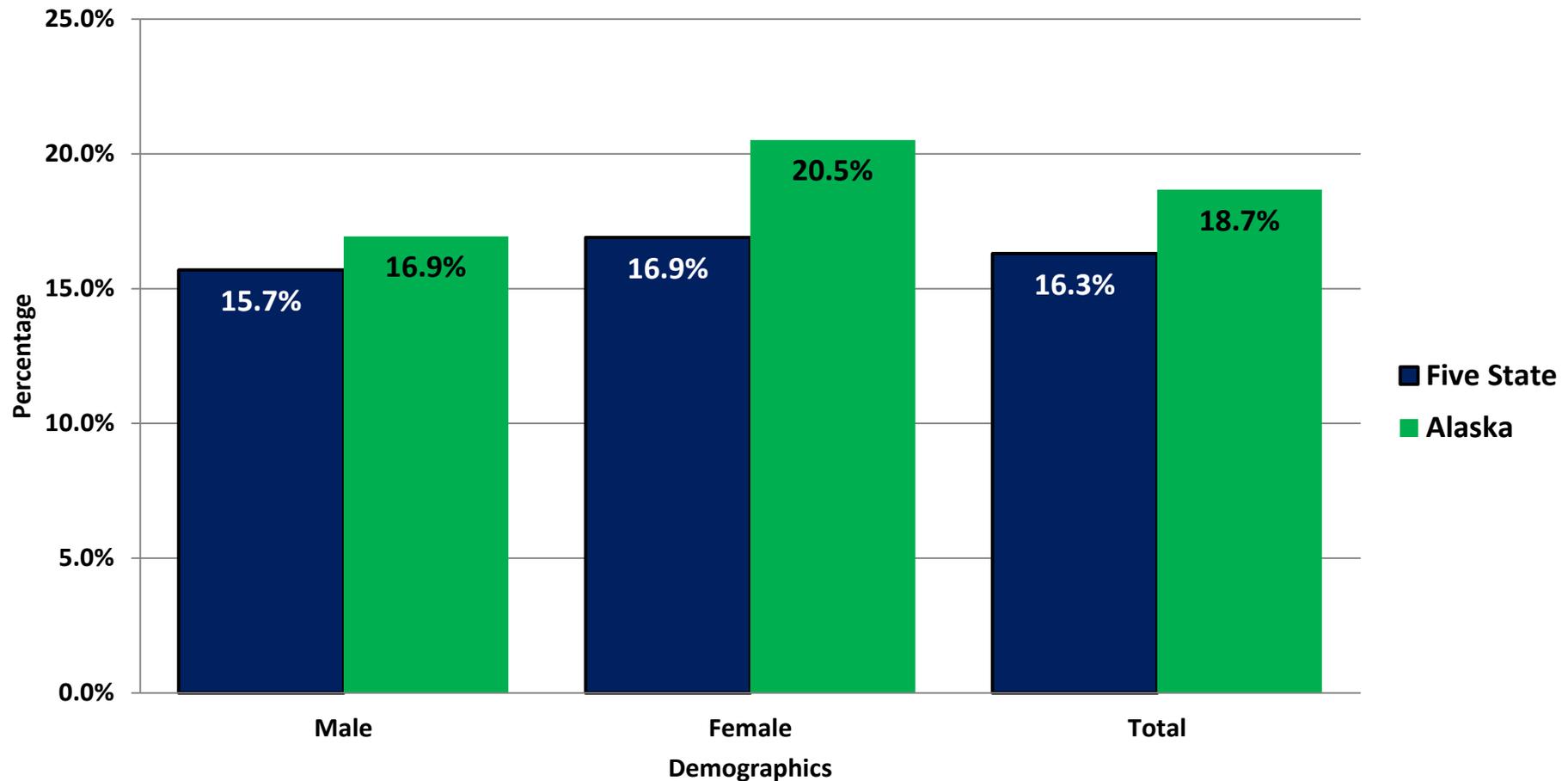
- **Yes**
- **No**
- **If answered “yes” than ACE = 1**

## Witnessing Domestic Violence Prior to Age 18 as Reported by Alaskan Adults



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

## Witnessing Domestic Violence Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

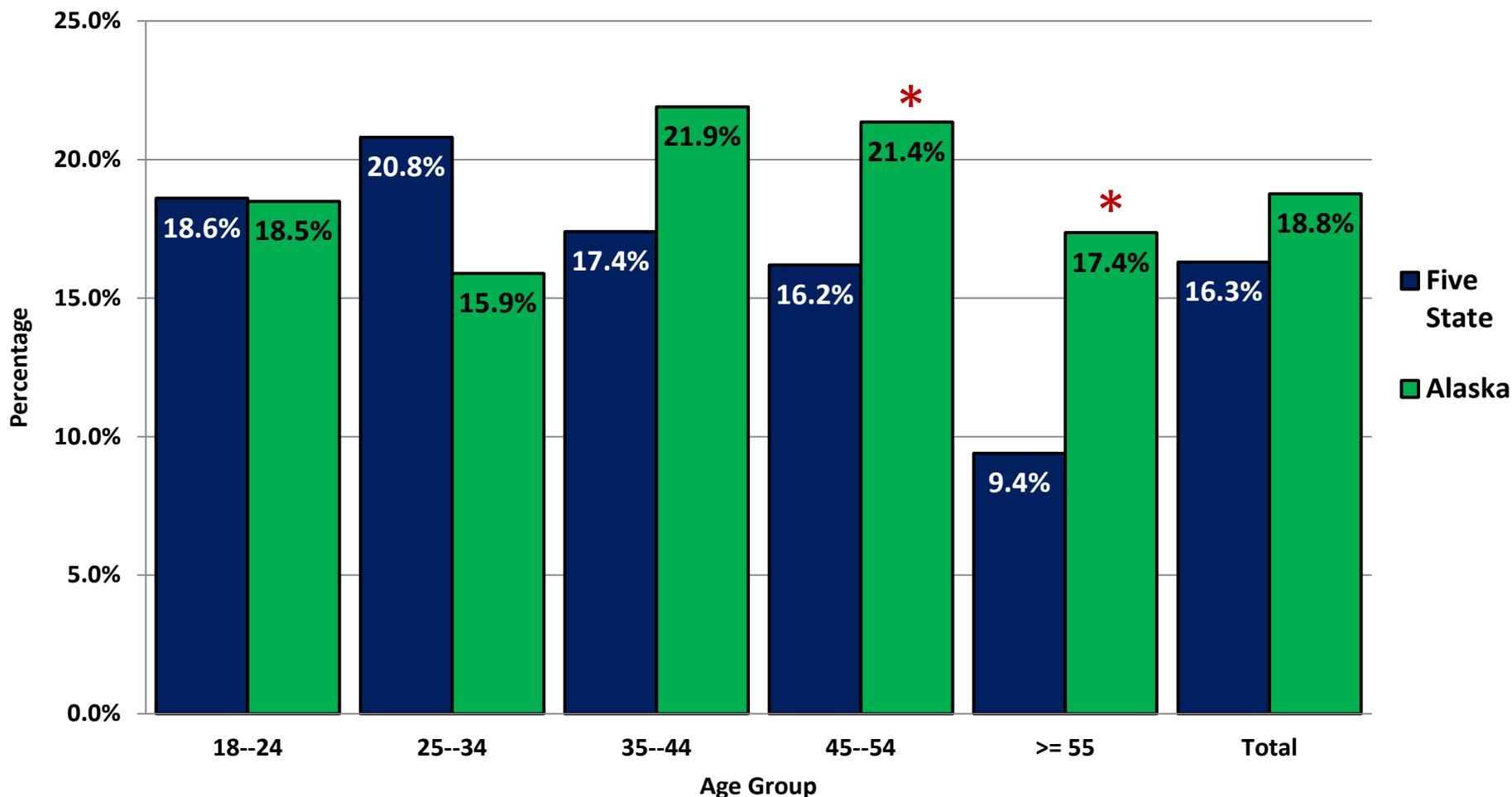


\* **There is no statistically significant difference between the five state and Alaska data above**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Witnessing Domestic Violence Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

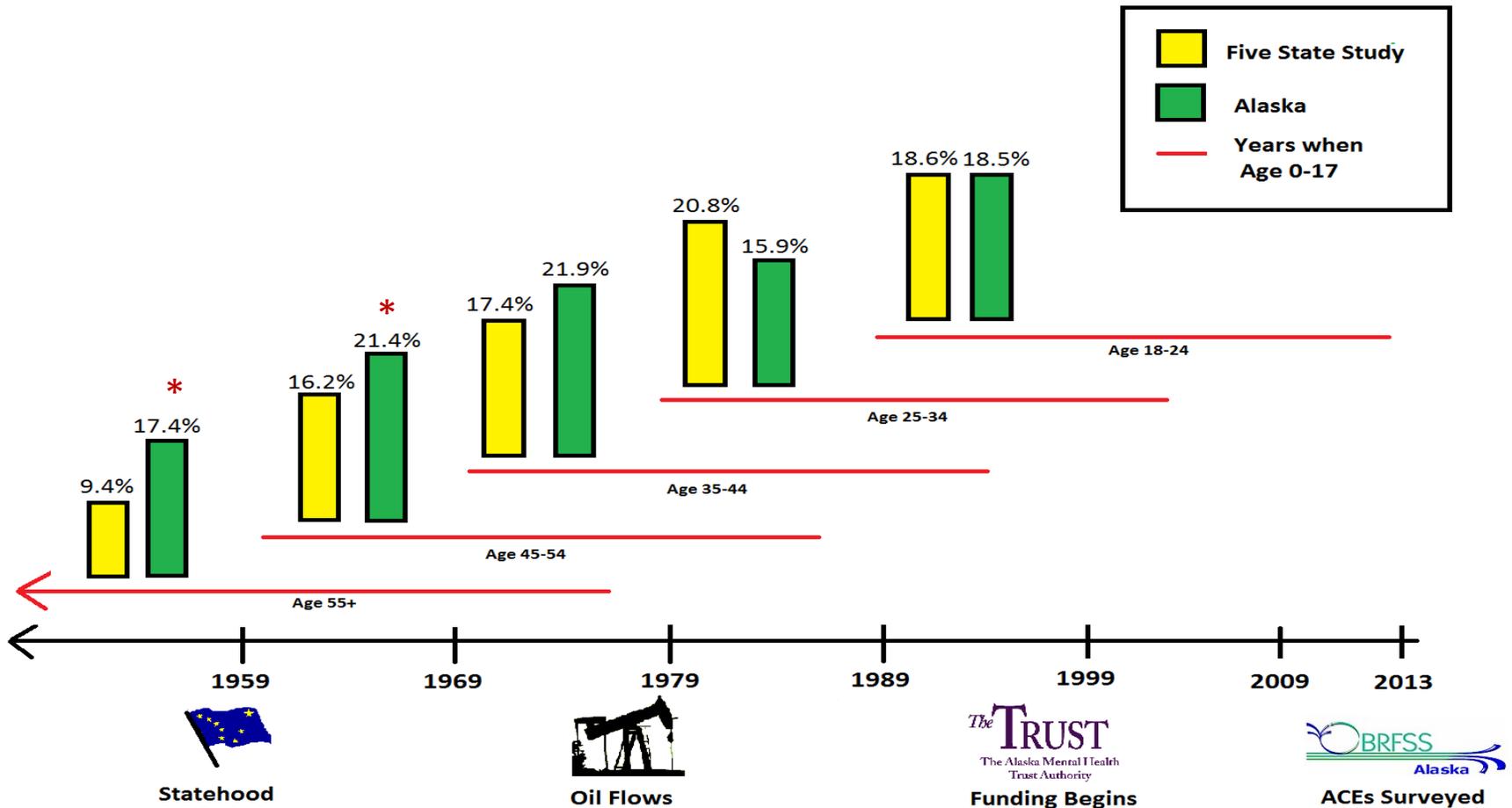


\* The difference in age groups 45-54, 55+ are statistically significant

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Witnessing Domestic Violence Prior to age 18 as Reported by Adults in Alaska and In a Five State Study by Age Group\*



\* The difference in age groups 45-54, 55+ are statistically significant

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Household Member in Jail

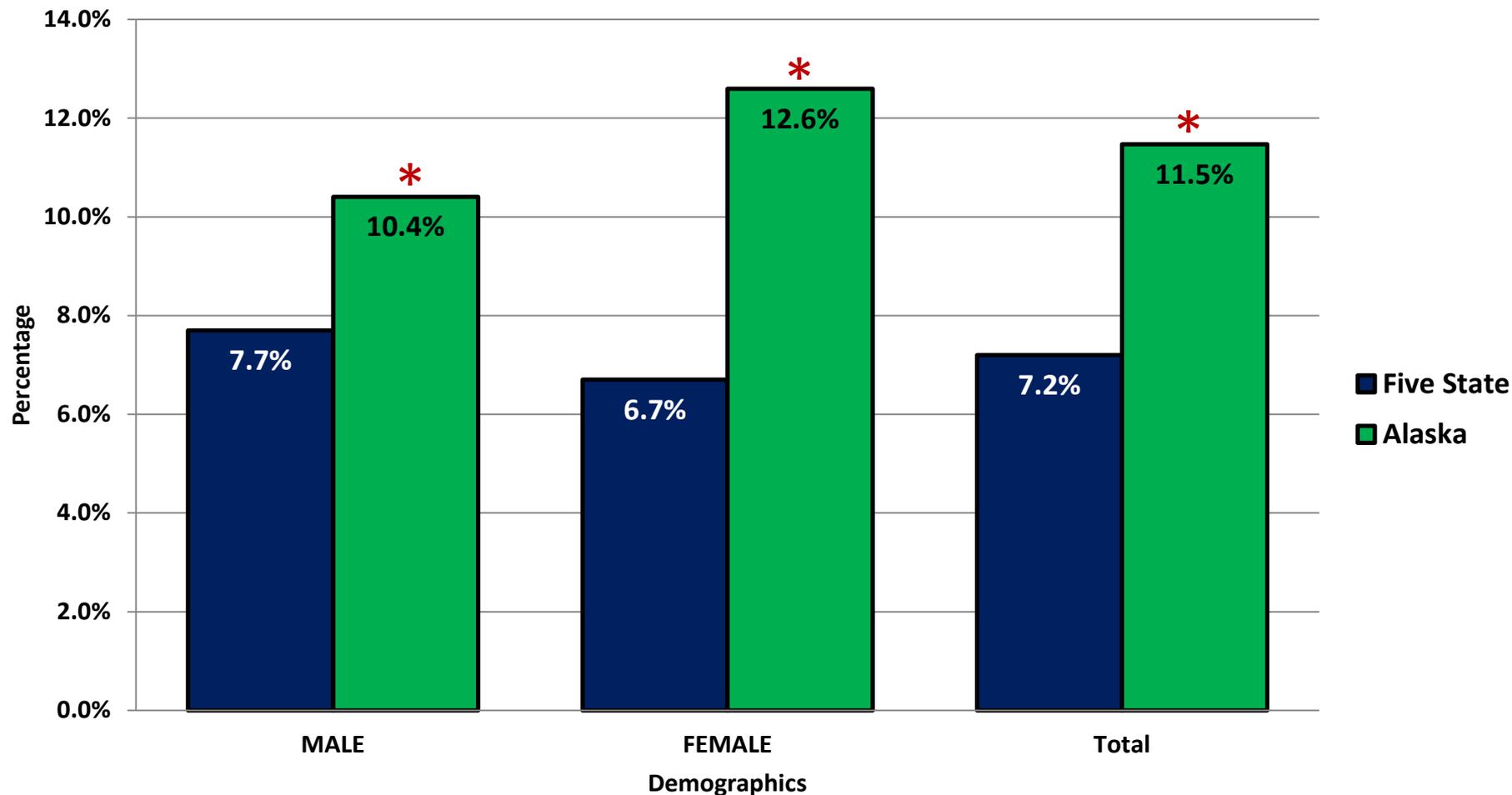
## The Question

- **BEFORE AGE 18, DID YOU LIVE WITH ANYONE WHO SERVED TIME OR WAS SENTENCED TO PRISON OR JAIL?**

## The Answers

- **Yes**
- **No**
- **If answered “yes” than ACE = 1**

## Exposed to an Household Member Incarcerated Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*



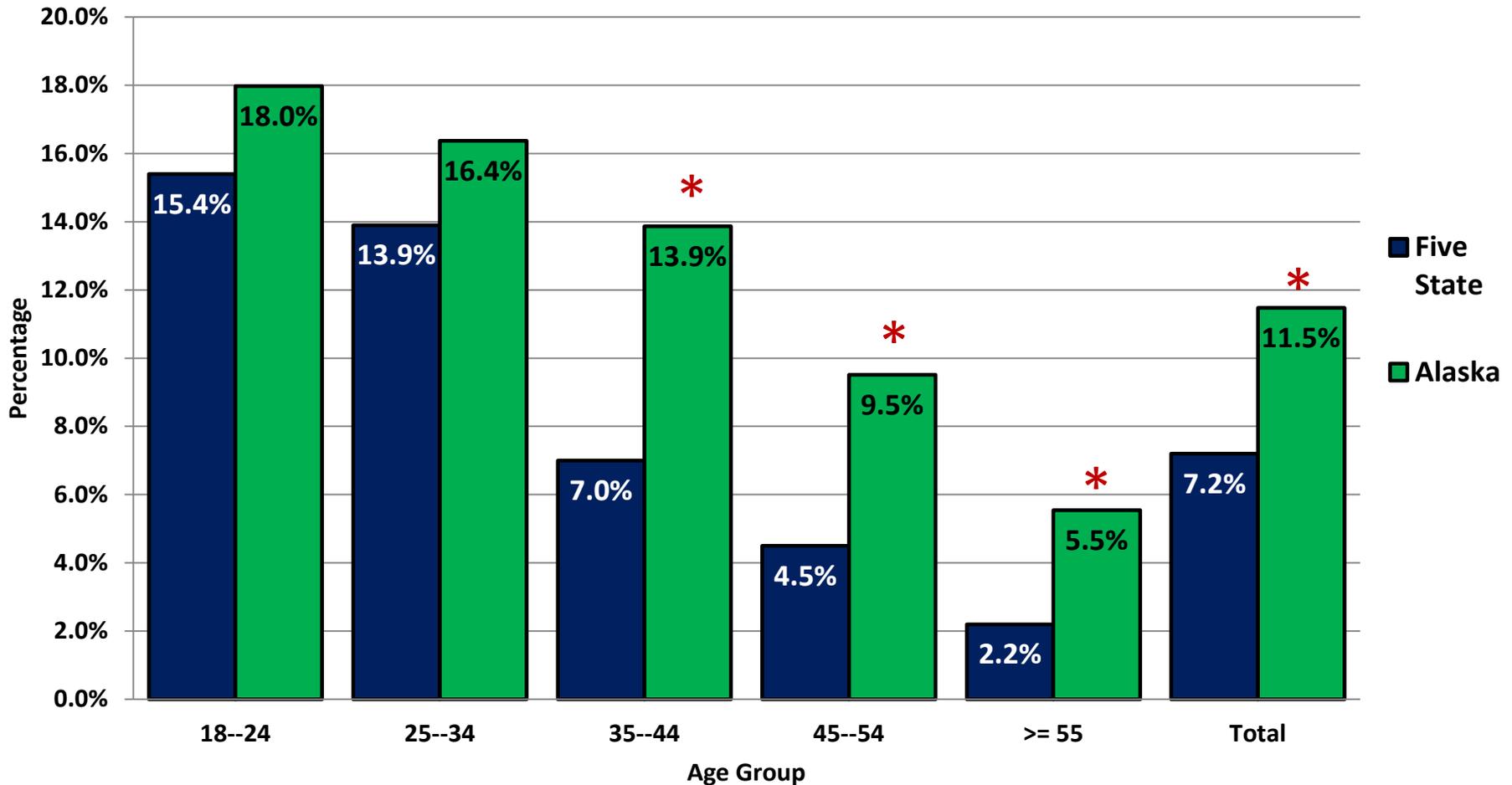
**\* There is a statistically significant difference between all categories above.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults*

--- Five States, 2009, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Exposed to an Household Member Incarcerated Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

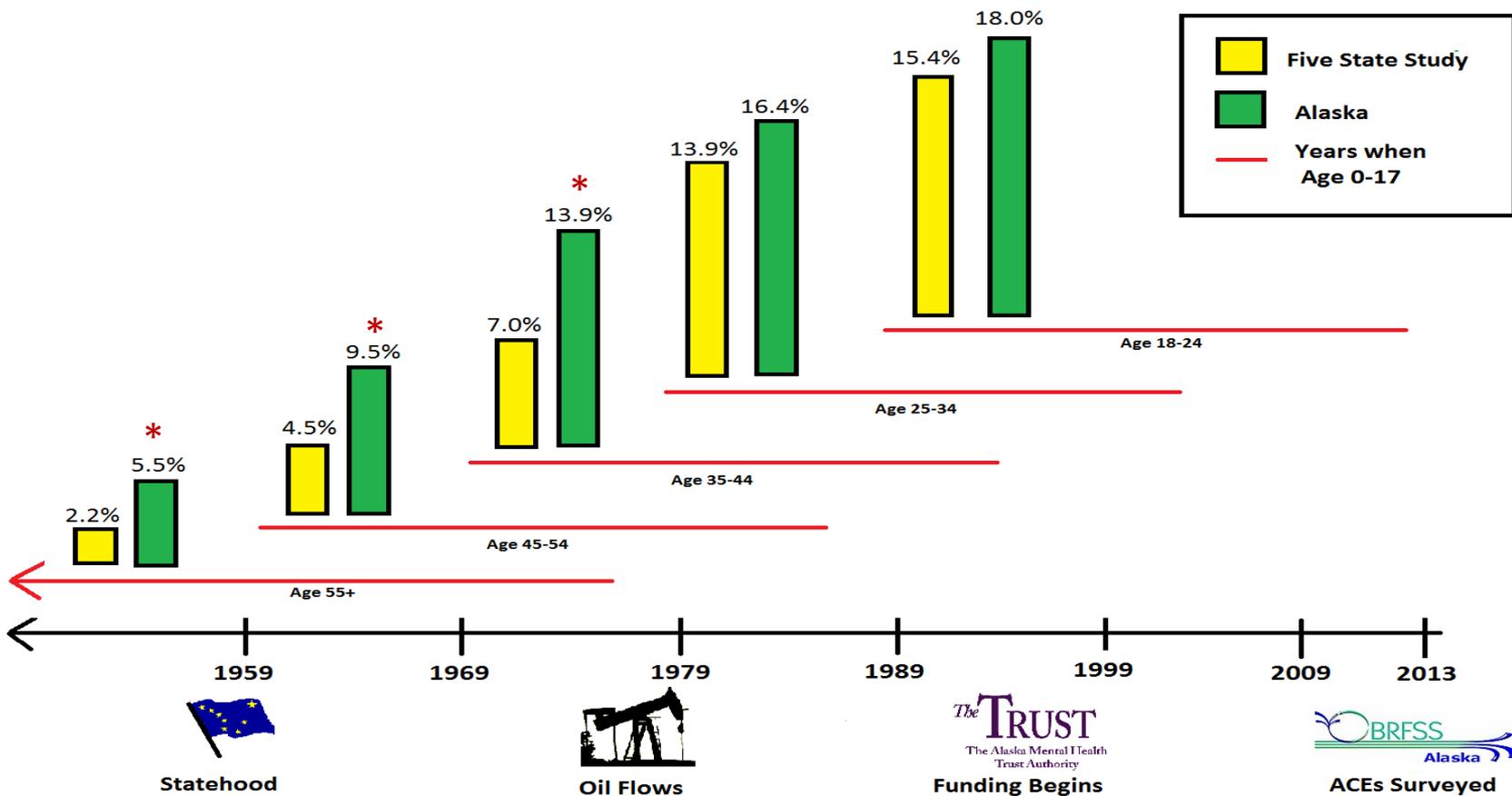


\* The difference in age groups 35-44, 45-54, 55+ as well as the total are statistically significant

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Exposed to an Incarcerated Household Member Prior to age 18 as Reported by Adults in Alaska and In a Five State Study by Age Group\*



**\* The difference in age groups 35-44, 45-54, 55+ as well as the total are statistically significant**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

# Household Substance Abuse

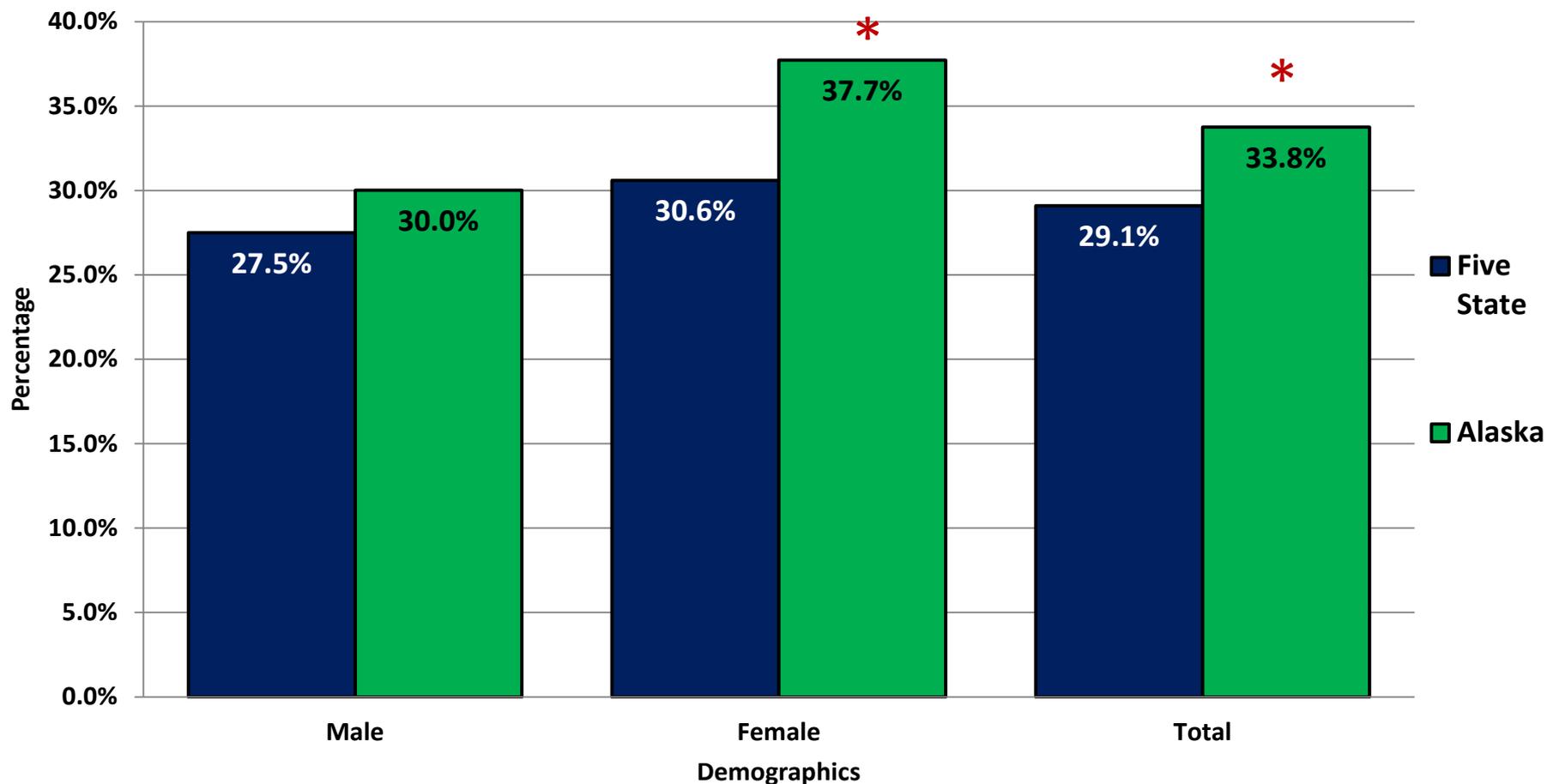
## The Questions

- **BEFORE AGE 18, DID YOU LIVE WITH ANYONE WHO WAS A PROBLEM DRINKER OR ALCOHOLIC?**
- **BEFORE AGE 18, DID YOU LIVE WITH ANYONE WHO USED ILLEGAL STREET DRUGS OR ABUSED PRESCRIPTION MEDICATIONS?**

## The Answers

- **Yes**
- **No**
- **If answered “yes” to either question than ACE = 1**

## Exposed to Household Substance Abuse Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

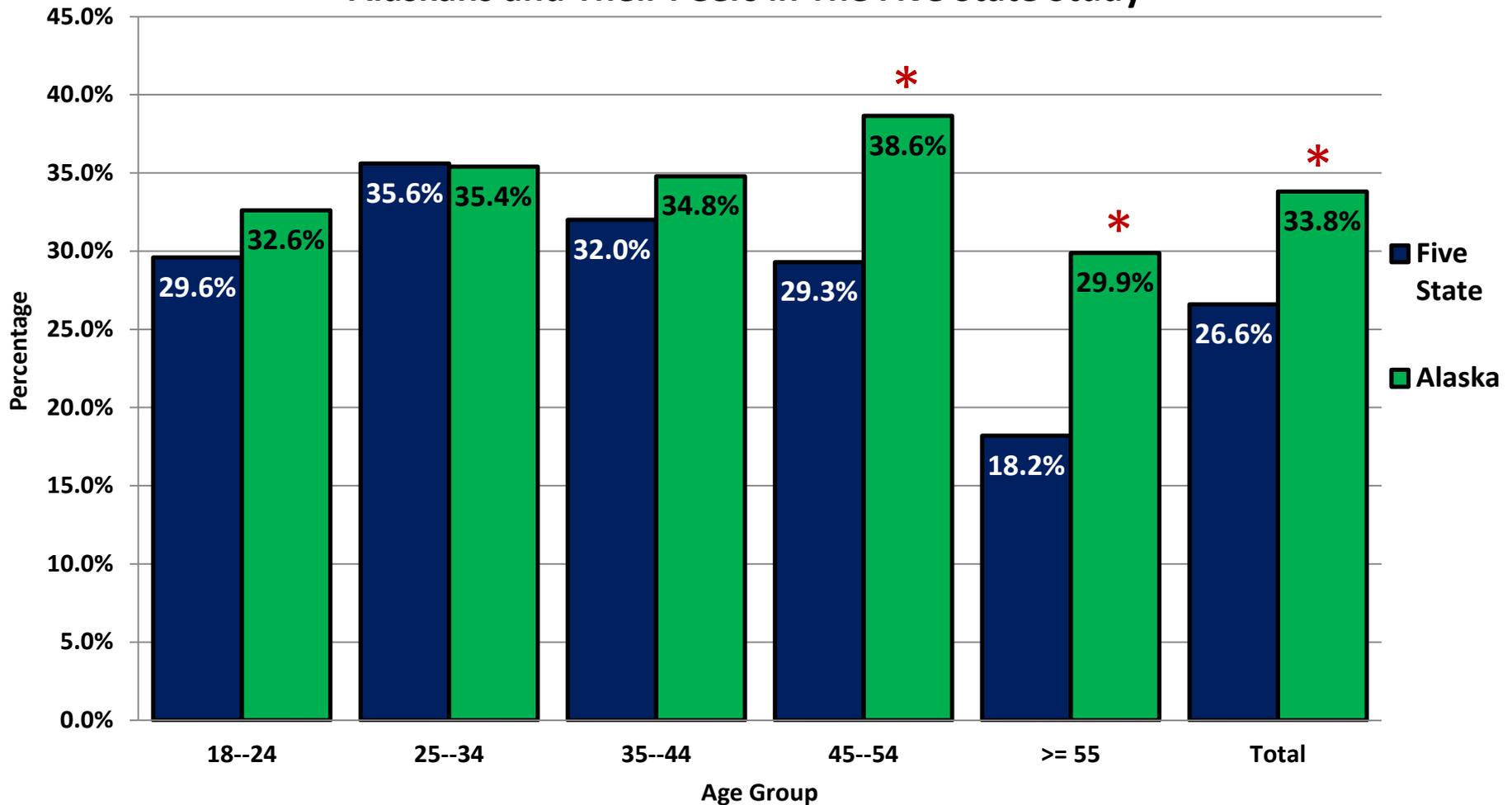


\* There is a statistically significant difference between FEMALE and Total categories above.

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults - -- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Exposed to Household Substance Abuse Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

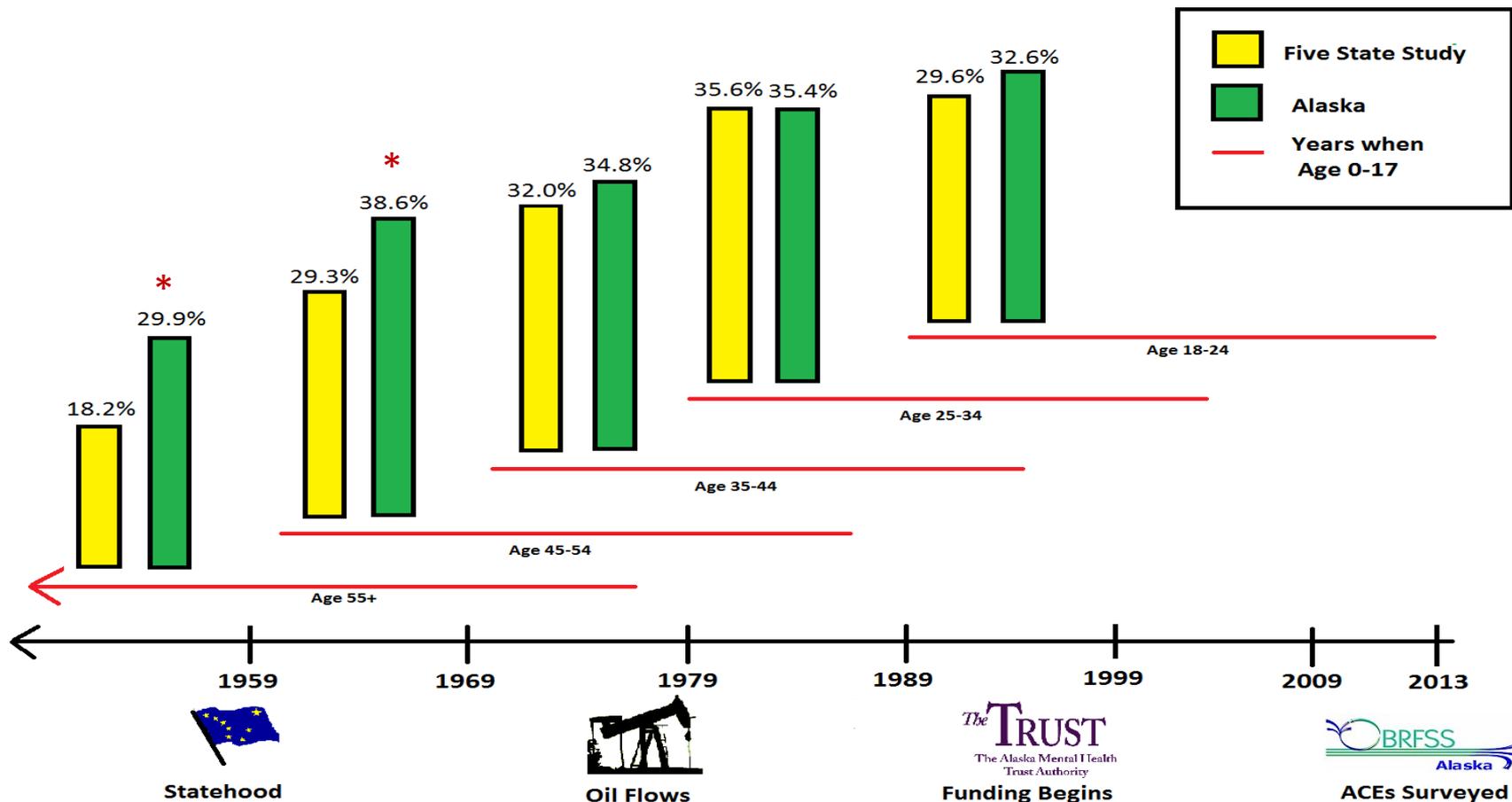


**\* The difference in age groups 45-54, 55+ as well as the total are statistically significant**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Exposed to Household Substance Abuse Prior to age 18 as Reported by Adults in Alaska and In a Five State Study by Age Group\*

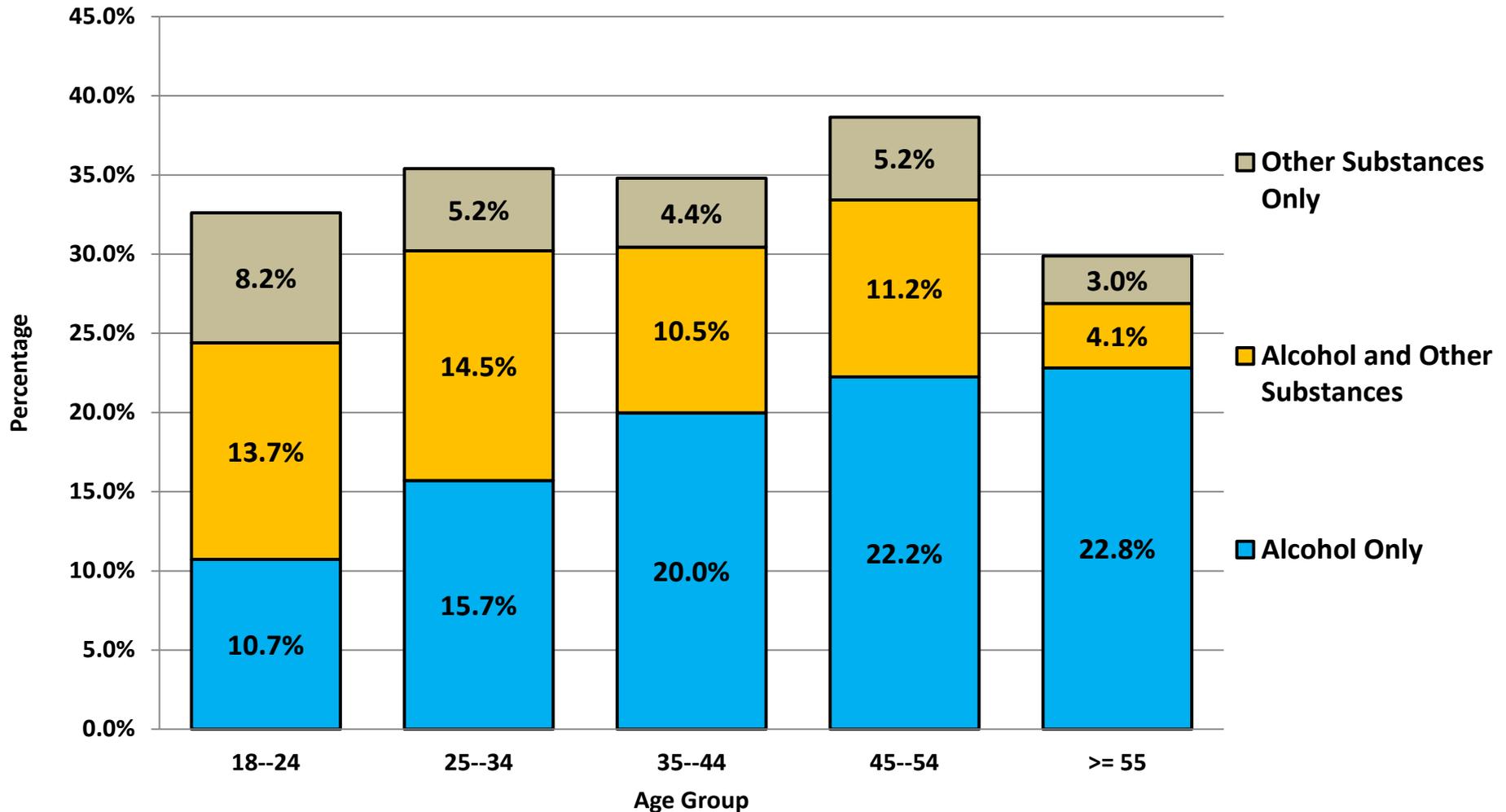


\* The difference in age groups 45-54, 55+ are statistically significant

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Percentage of Alaskan Adults Exposed to Household Substance Abuse Prior to Age 18 by Age group



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

# Separation/Divorce

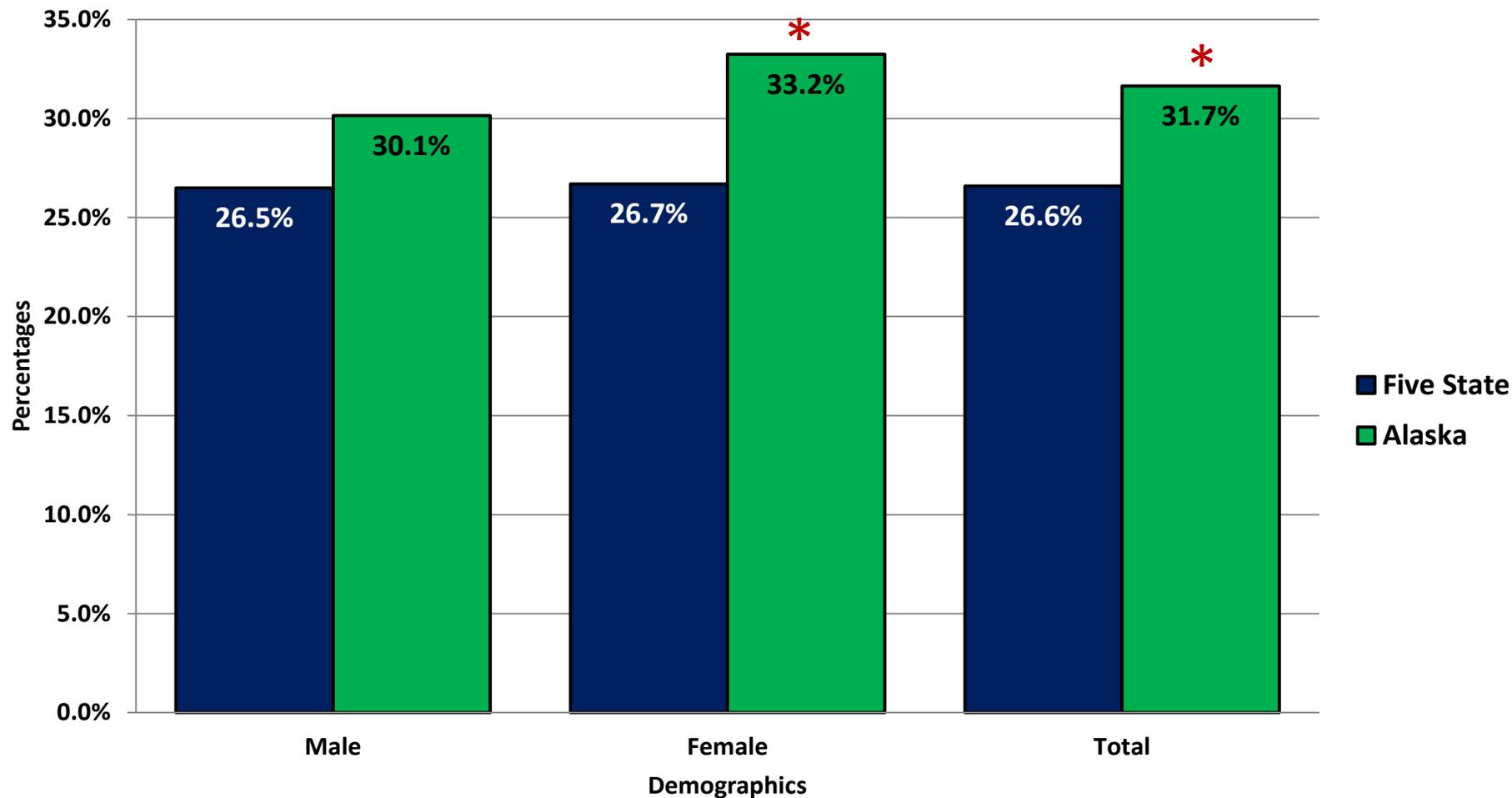
## The Question

- **BEFORE AGE 18, WERE YOUR PARENTS SEPARATED OR DIVORCED?**

## The Answers

- **Yes**
- **No**
- **If answered “yes” than ACE = 1**

## Exposed to Separation/Divorce Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

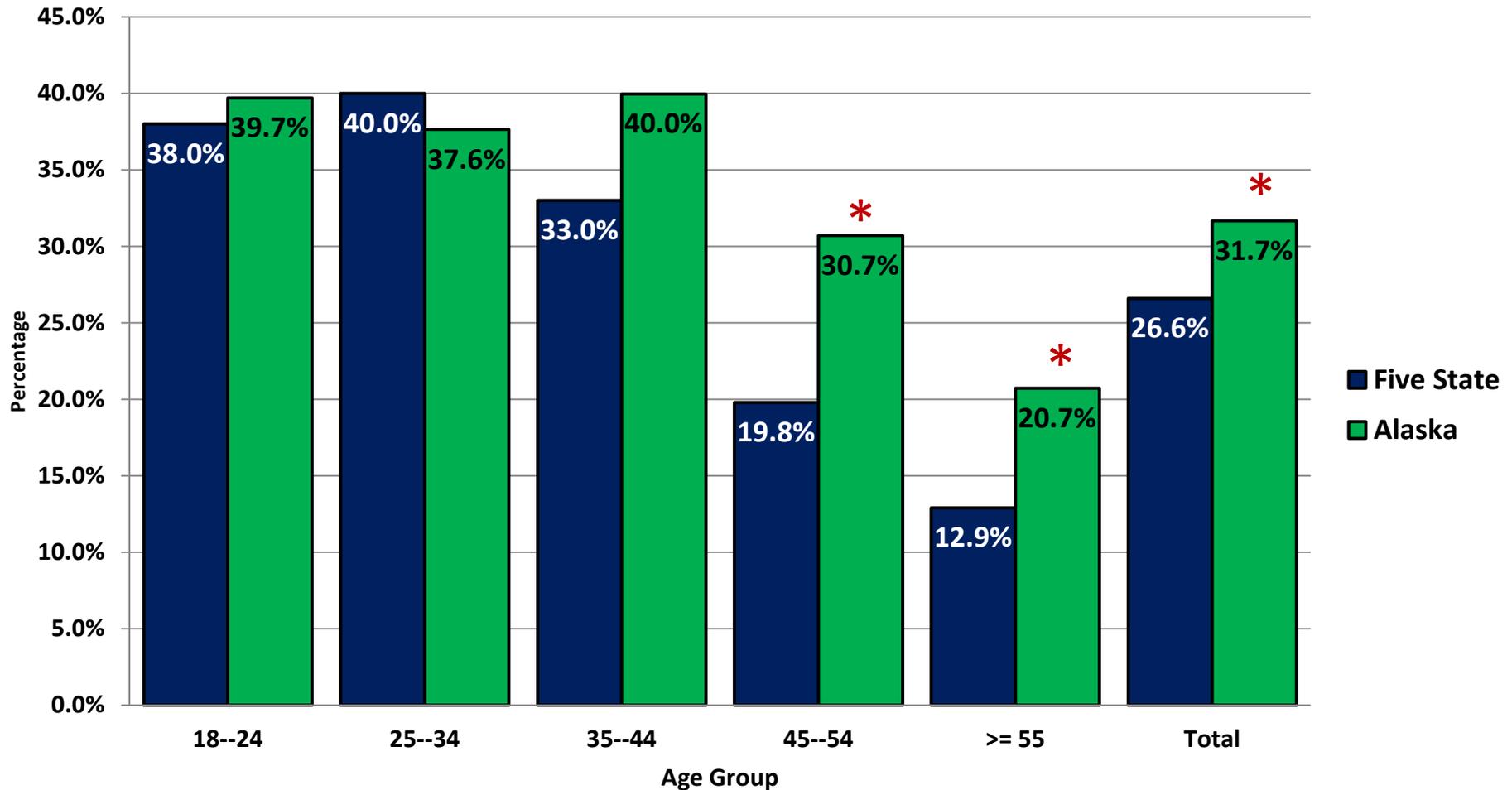


**\* There is a statistically significant difference between FEMALE and Total categories above.**

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Exposed to Separation/Divorce Prior to Age 18 As Reported by Alaskans and Their Peers in The Five State Study\*

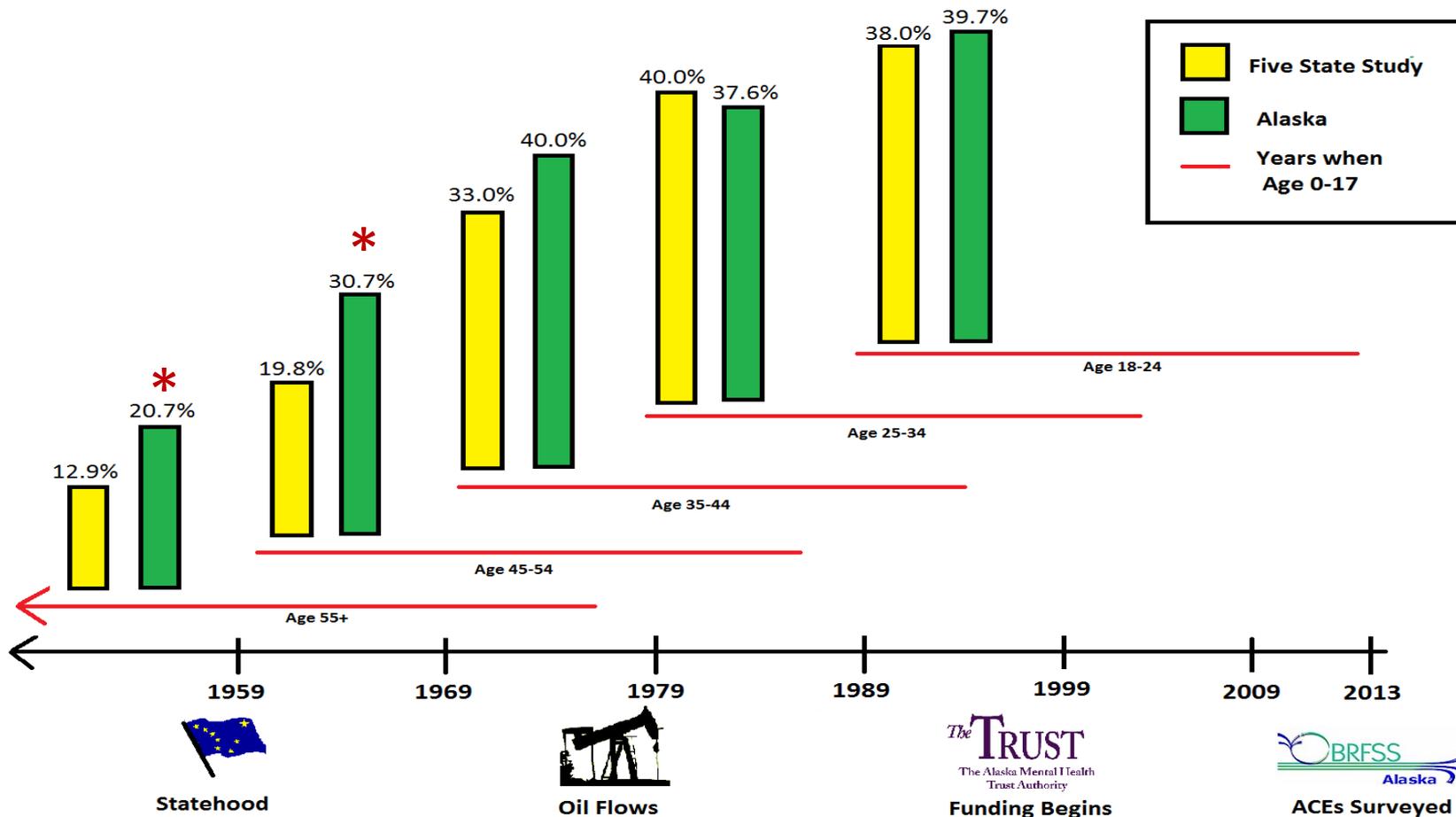


\* The difference in age groups 45-54, 55+ as well as the total are statistically significant

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Exposed to Separation/Divorce Prior to age 18 as Reported by Adults in Alaska and In a Five State Study\*

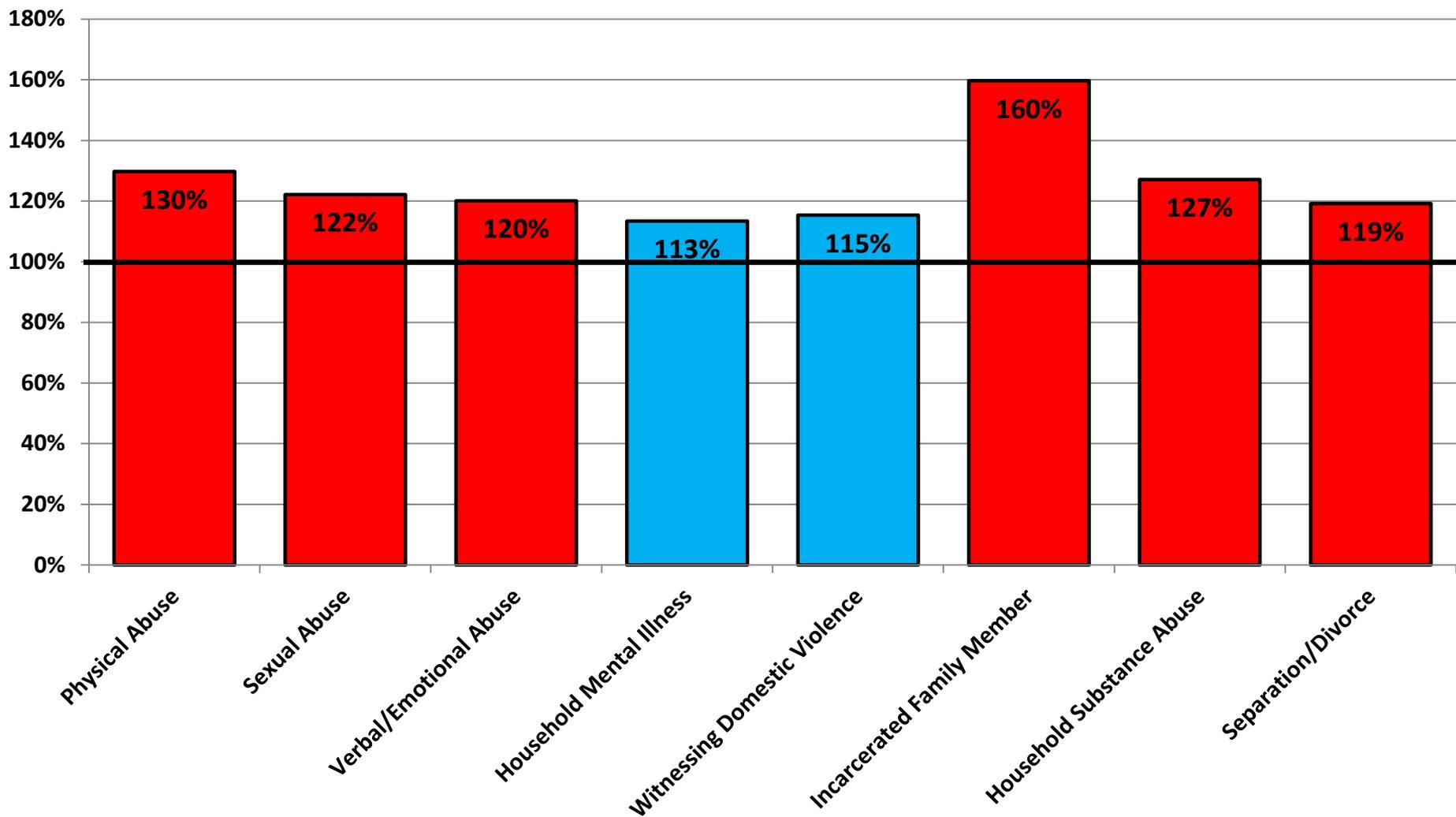


\* The difference in age groups 45-54, 55+ are statistically significant

**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Alaska ACE Scores as a Percentage of the Five State Study\*

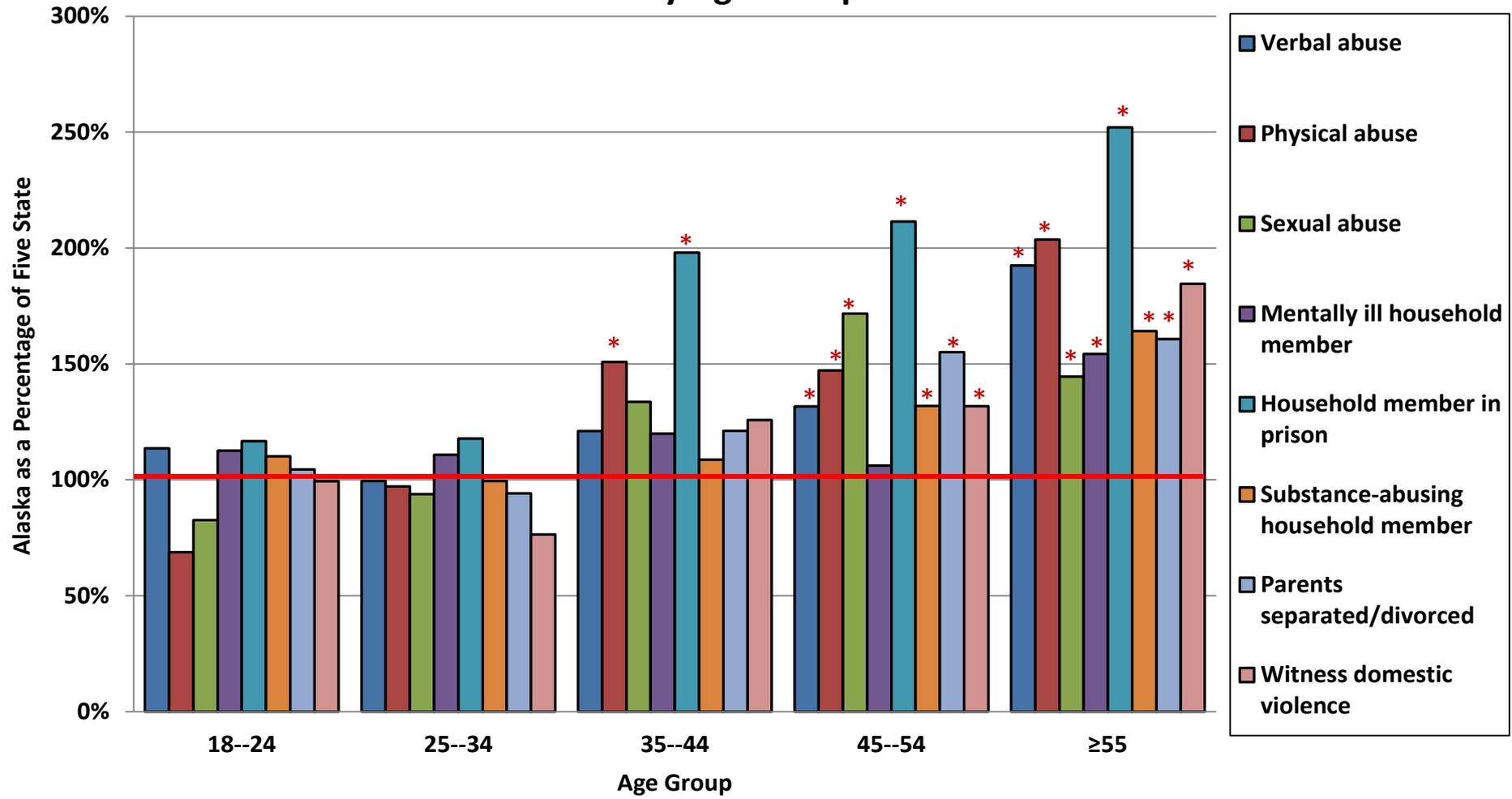


\* Columns in red are different in a statistically significant way between the two studies.

Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

Source: Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

## Alaska's ACE Rate as a Percentage of the Five State ACE Study by Age Group\*

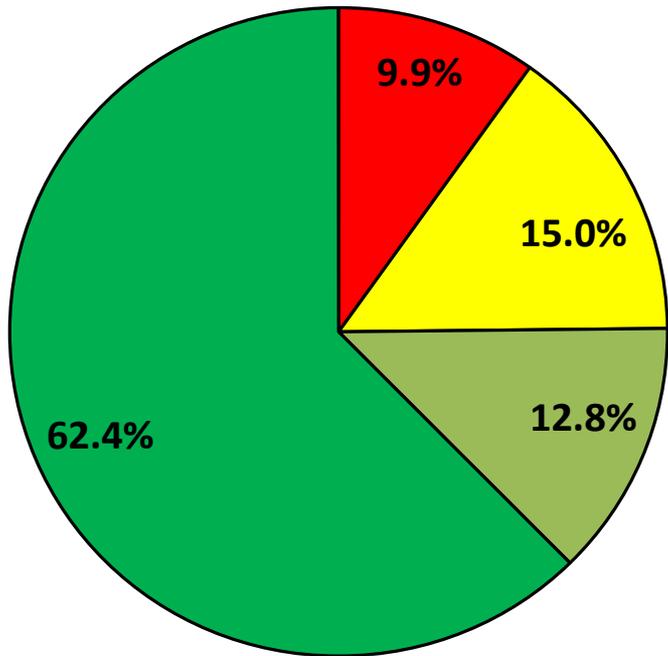


**\* Columns with asterisks are different in a statistically significant way between the two studies.**  
**Note: The red line indicates 100% or comparable rates between the two studies. If no asterisk is above the line the numbers are statistically similar.**  
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion  
**Source:** Five States Study data from the Centers for Disease Control and Prevention, *Adverse Childhood Experiences Reported by Adults --- Five States, 2009*, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5949a1.htm>

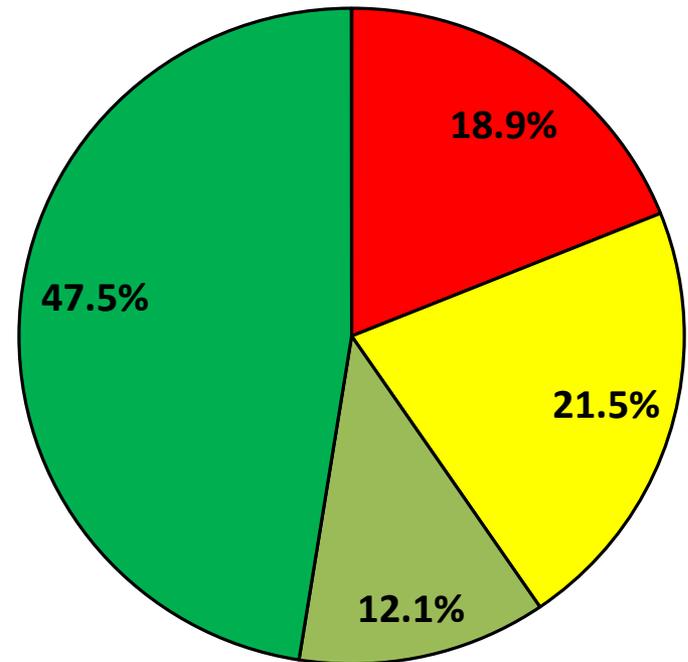
# Economics and Education

# Alaskan Adults and Their Income Status with Zero and Four Plus ACEs

Zero ACEs



Four Plus ACEs



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

# Costs

## Who are:

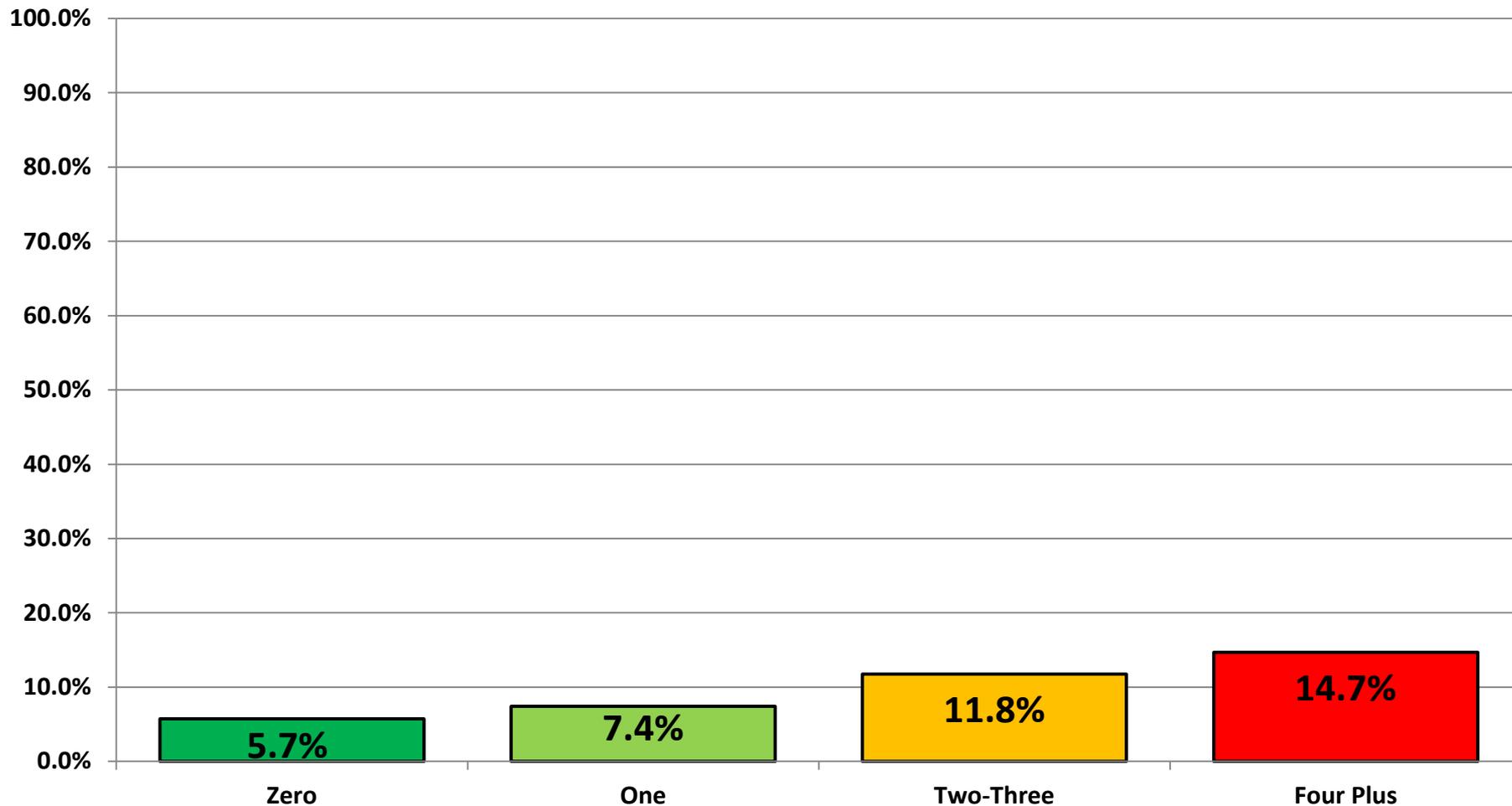
- 49% more likely to be unemployed
- 274% more likely to be unable to work
- 92% more likely to earn less than \$20,000 annually

## Answer:

- Alaskan adults who report four or more Adverse Childhood Experiences compared to Alaskan adults who report zero Adverse Childhood Experiences.

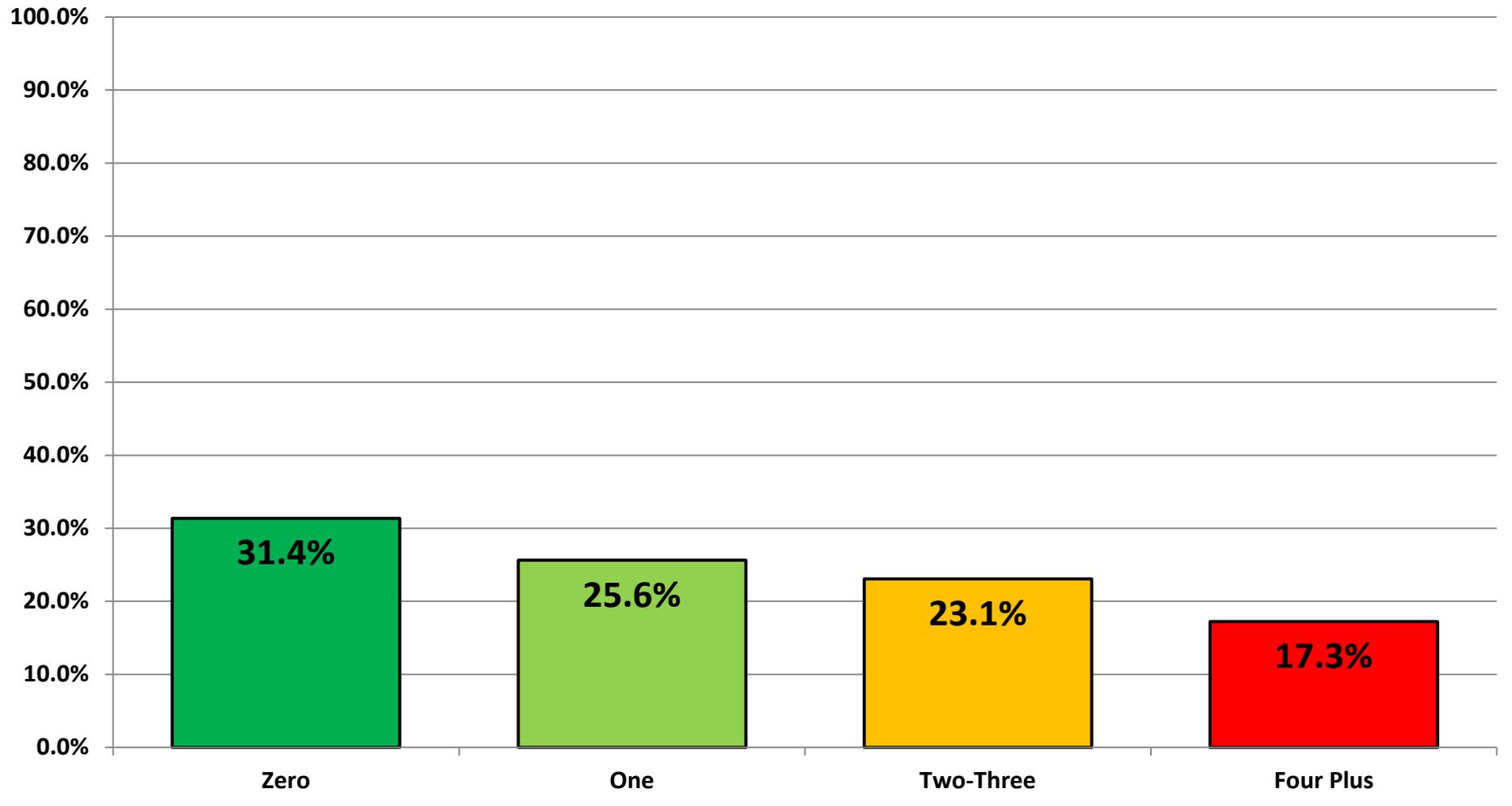
Source: 2013 Alaska Behavioral Risk Factor Surveillance System, Analysis by Alaska Mental Health Board/Advisory Board on Alcoholism and Drug Abuse Staff

# Percentage of Alaskan Adults who Report Not Finishing High School or getting a GED by ACE Score



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

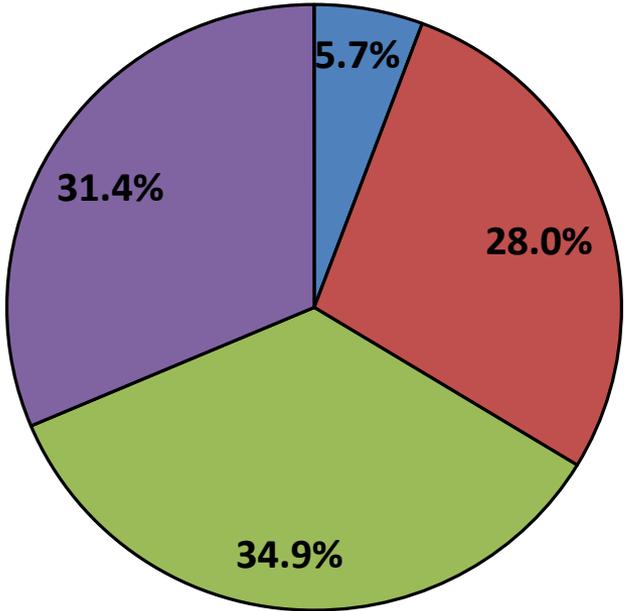
# Percentage of Alaskan Adults Who Report Graduating From College by ACE Score



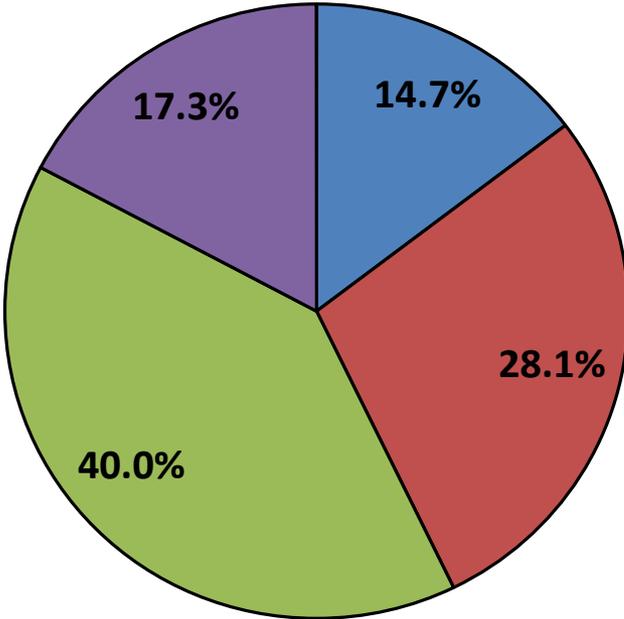
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

# Alaskan Adults and Their Education Status with Zero and Four Plus ACEs

Zero ACEs



Four Plus ACEs



- LESS THAN HIGH SCHOOL
- HIGH SCHOOL GRADUATE OR GED
- SOME COLLEGE OR TECHNICAL SCHOOL
- COLLEGE GRADUATE

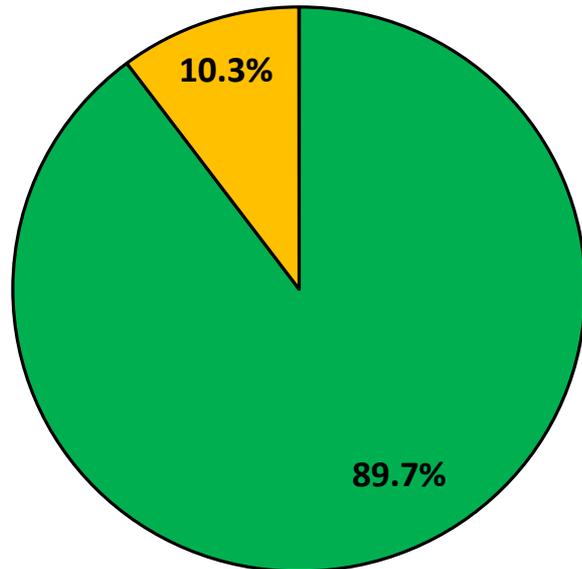
Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

# Health and ACEs

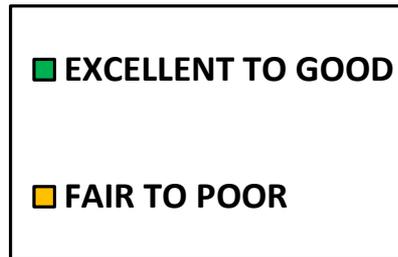
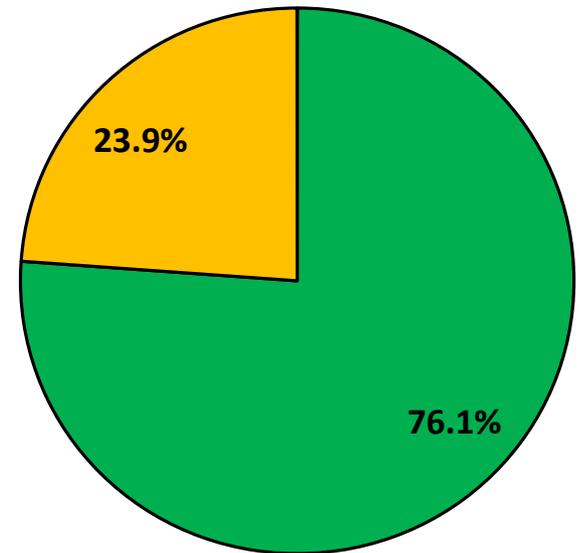
- Adverse Childhood Experiences have been linked with many poor health outcomes.
- Alaskan adults report similar results to the national and state studies

# General Health and ACEs

## Zero Adverse Experiences

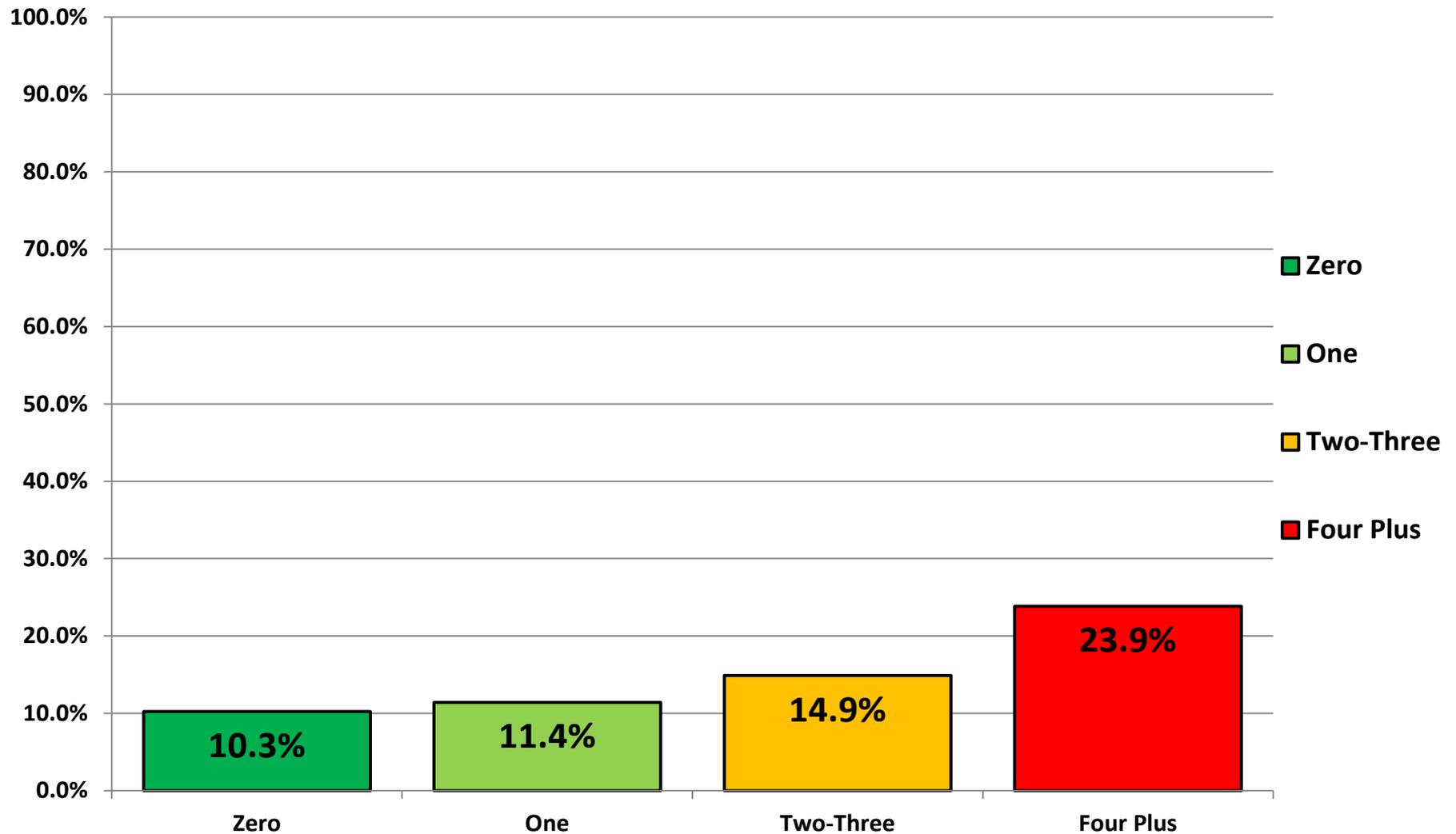


## Four Plus Adverse Experiences



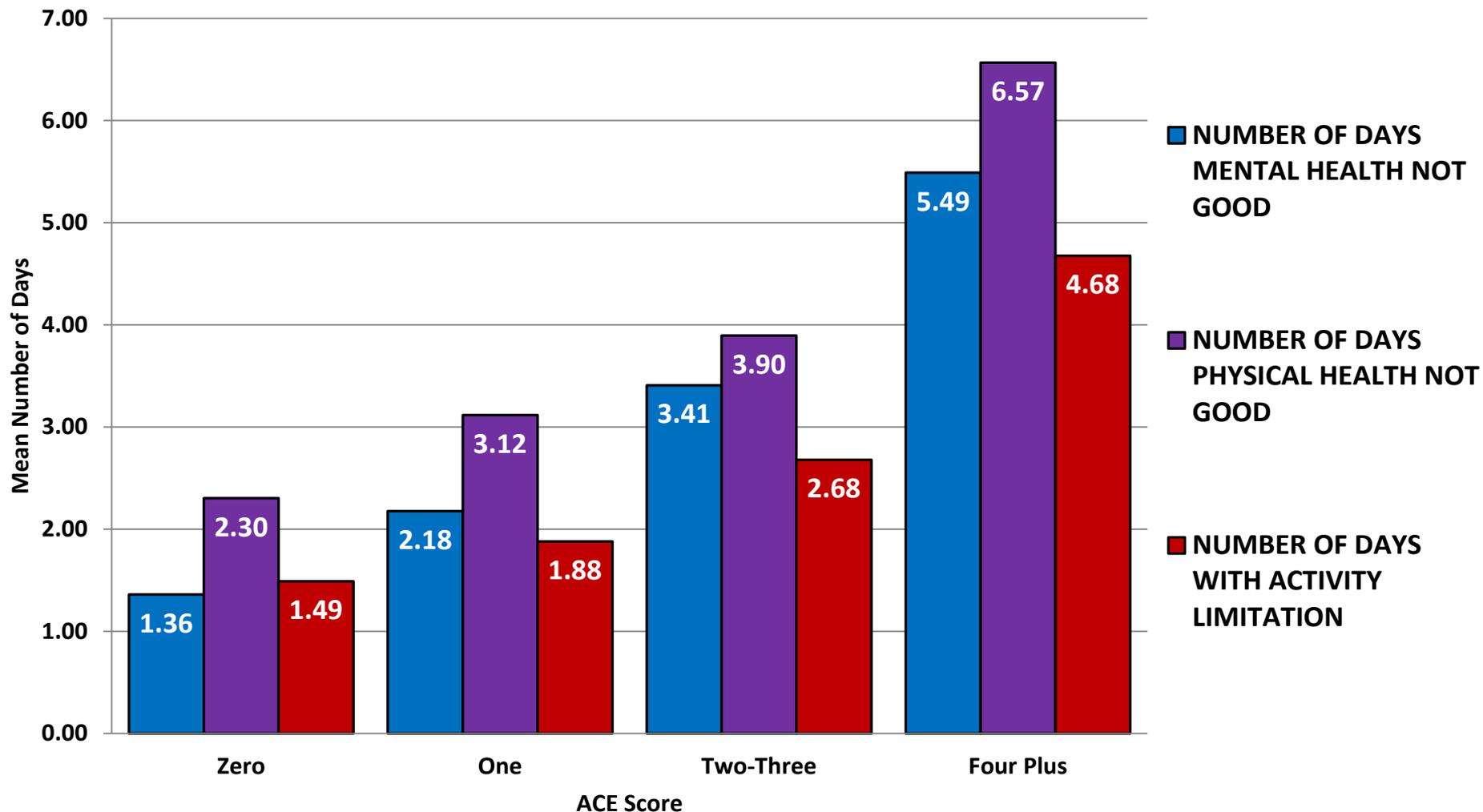
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

## Alaskan Adults who Report "Fair to Poor" General Health by ACE Score



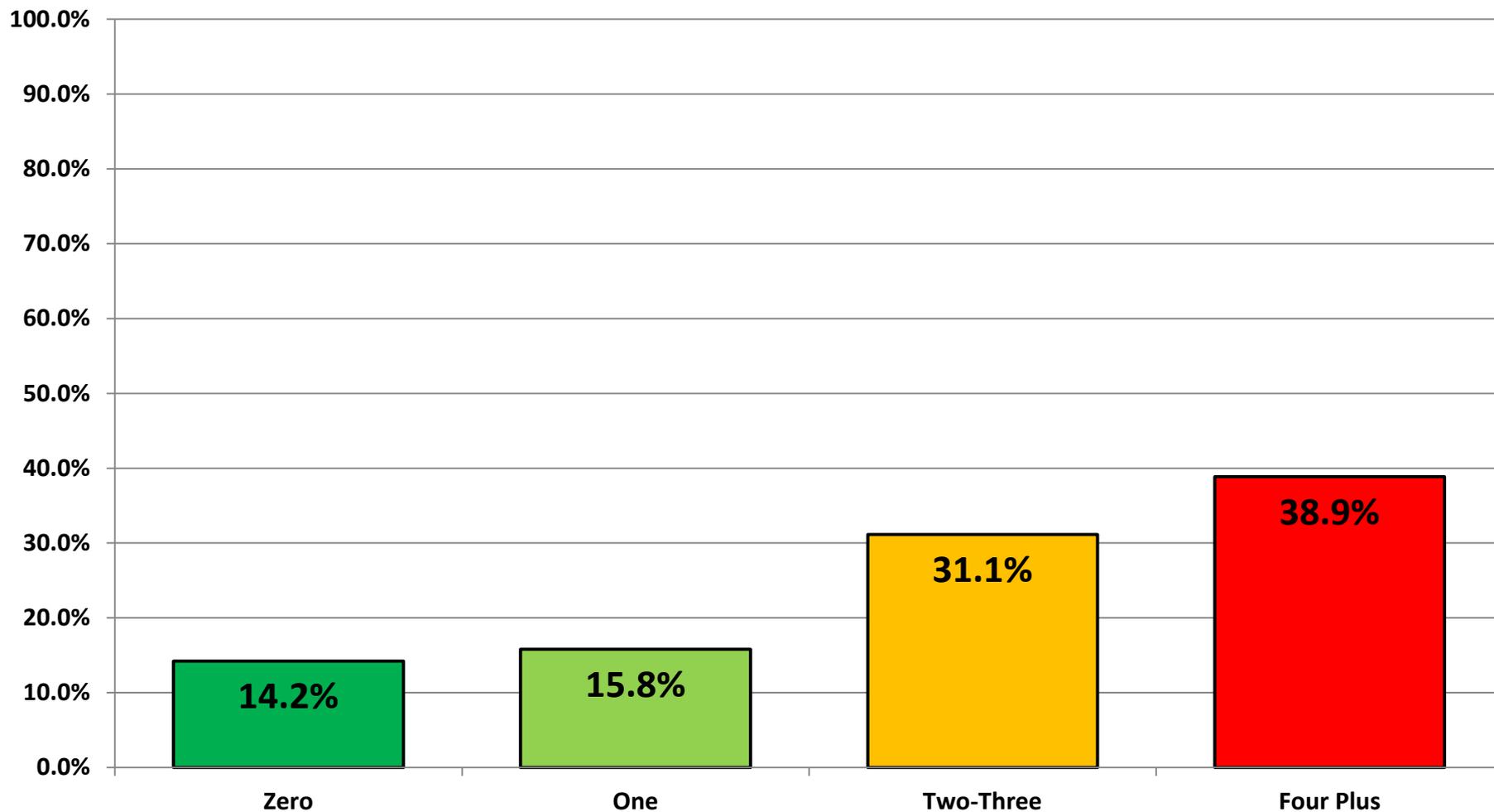
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

## Average Number of Days of Poor Health Outcomes Per Month For Alaskan Adults by ACE Score



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

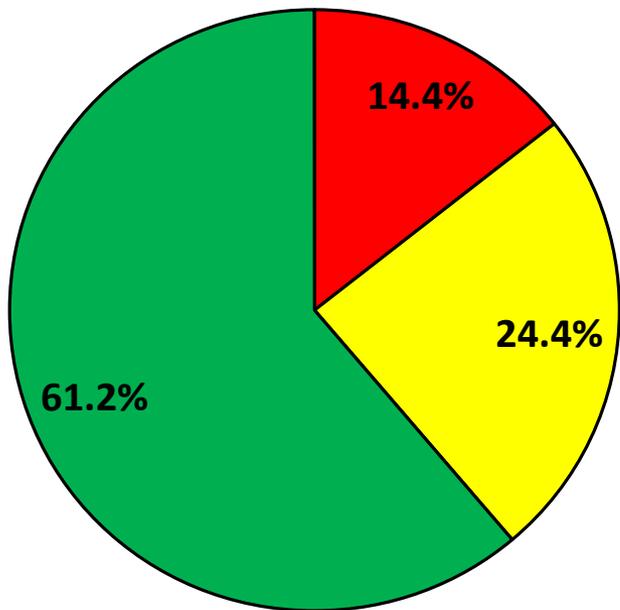
## Alaskan Adults who Report Frequent Mental Distress by ACE Score



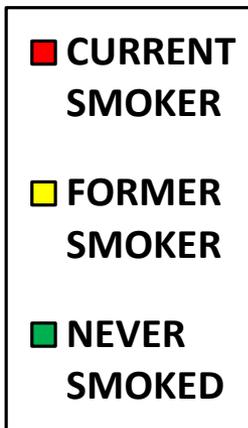
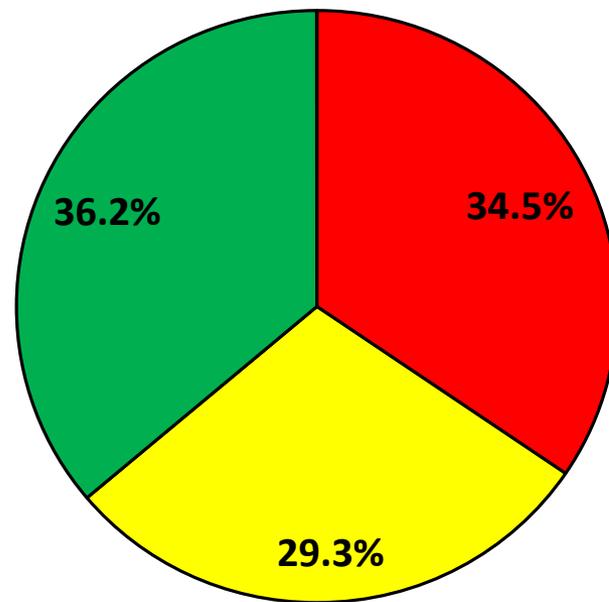
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

# Alaskan Adults and Their Smoking Status with Zero and Four Plus ACEs

Zero ACEs

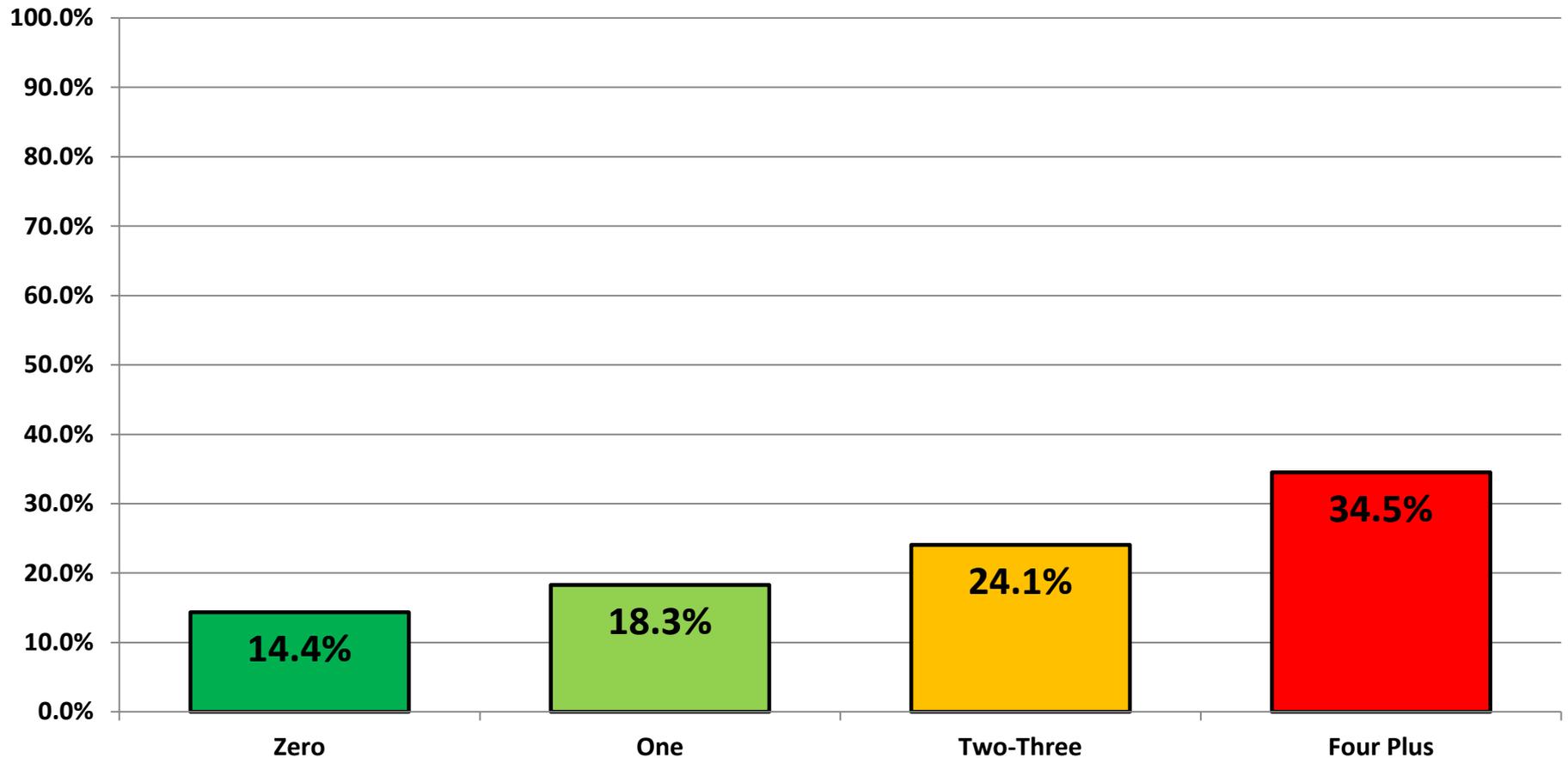


Four Plus ACEs



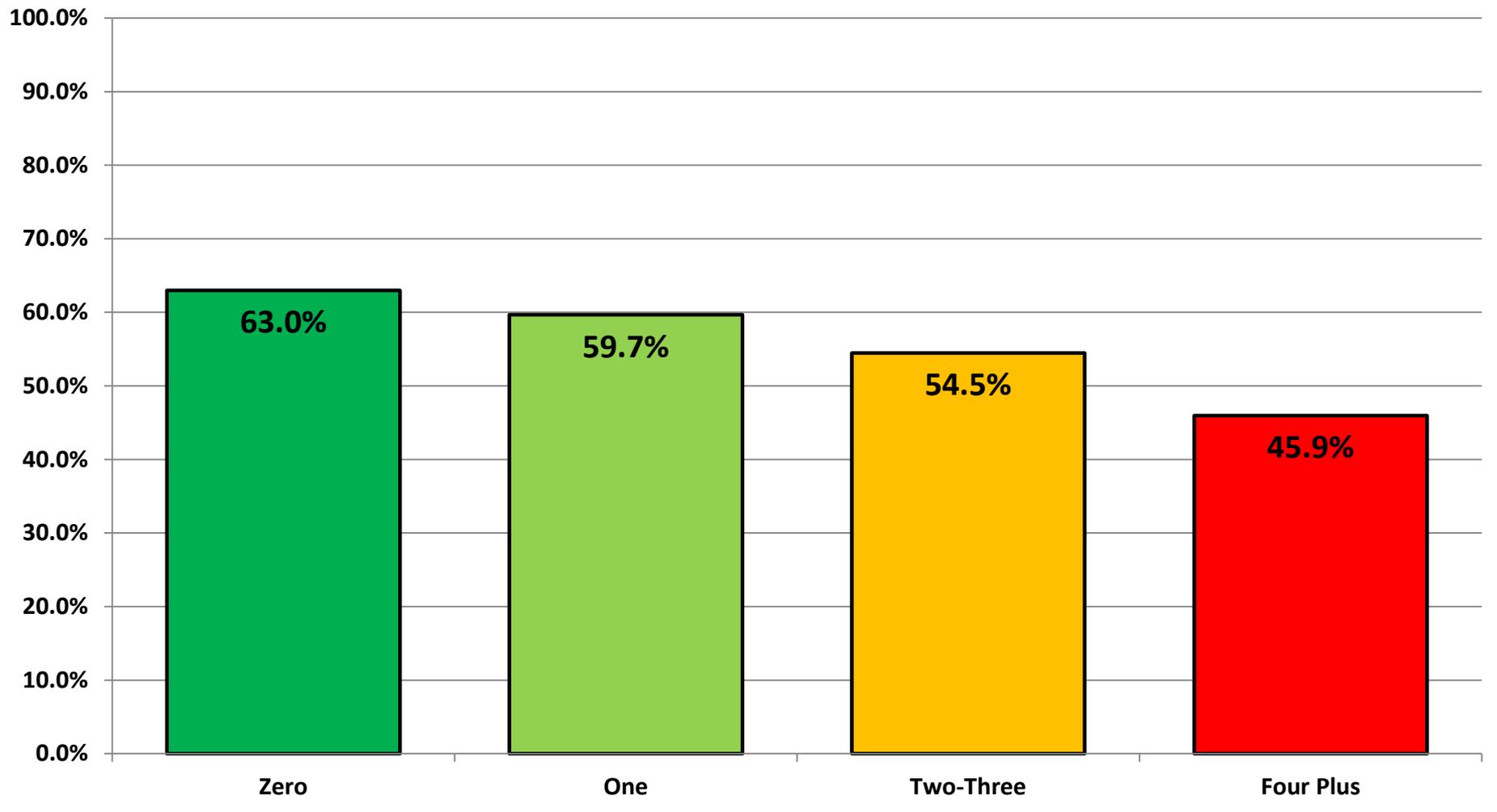
Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

# Alaskan Adults who Report being Current Smokers by Ace Score



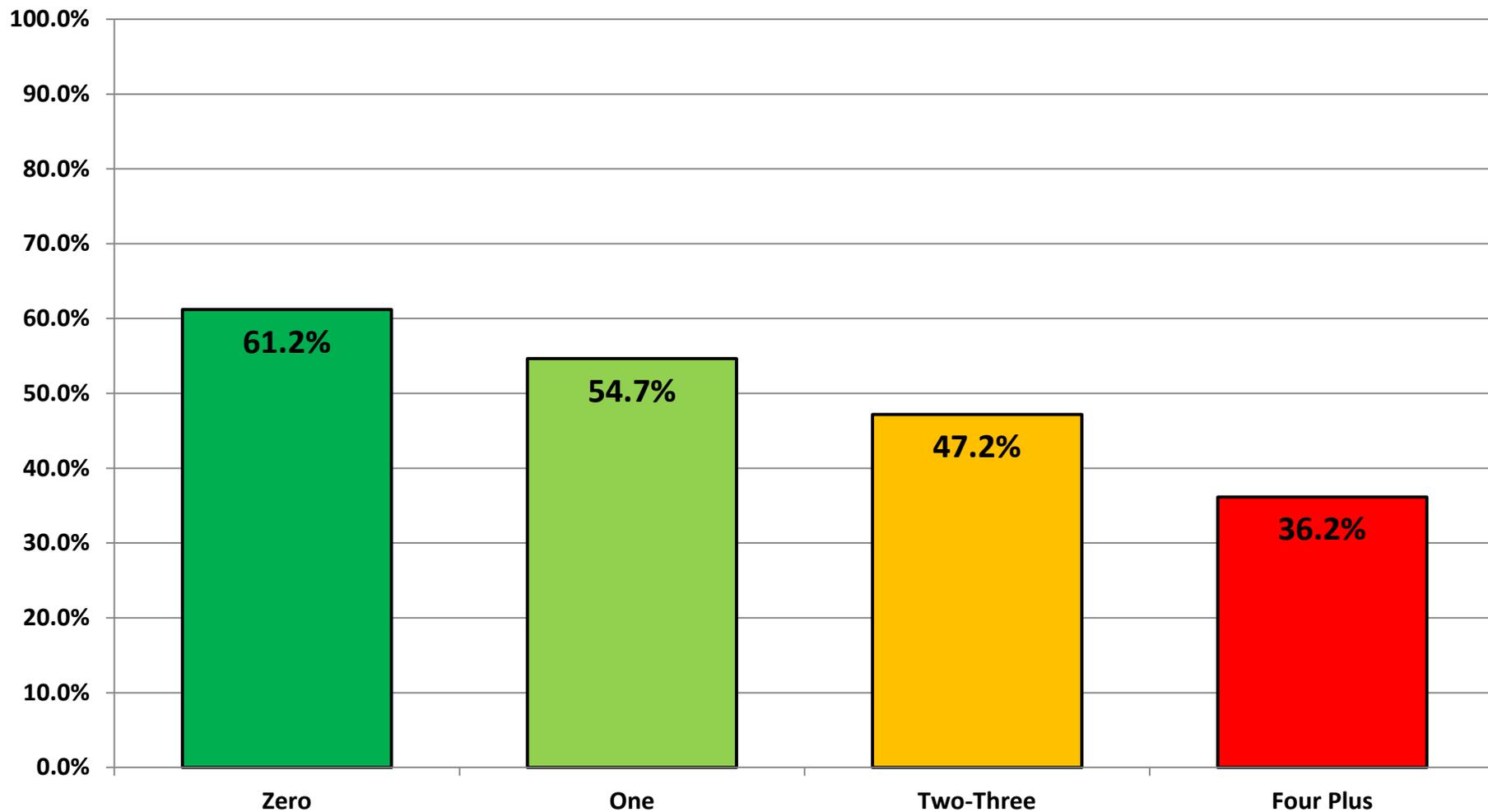
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

## Percentage of Alaskan Adults Who have Ever Smoked who Don't Smoke Now by ACE Score



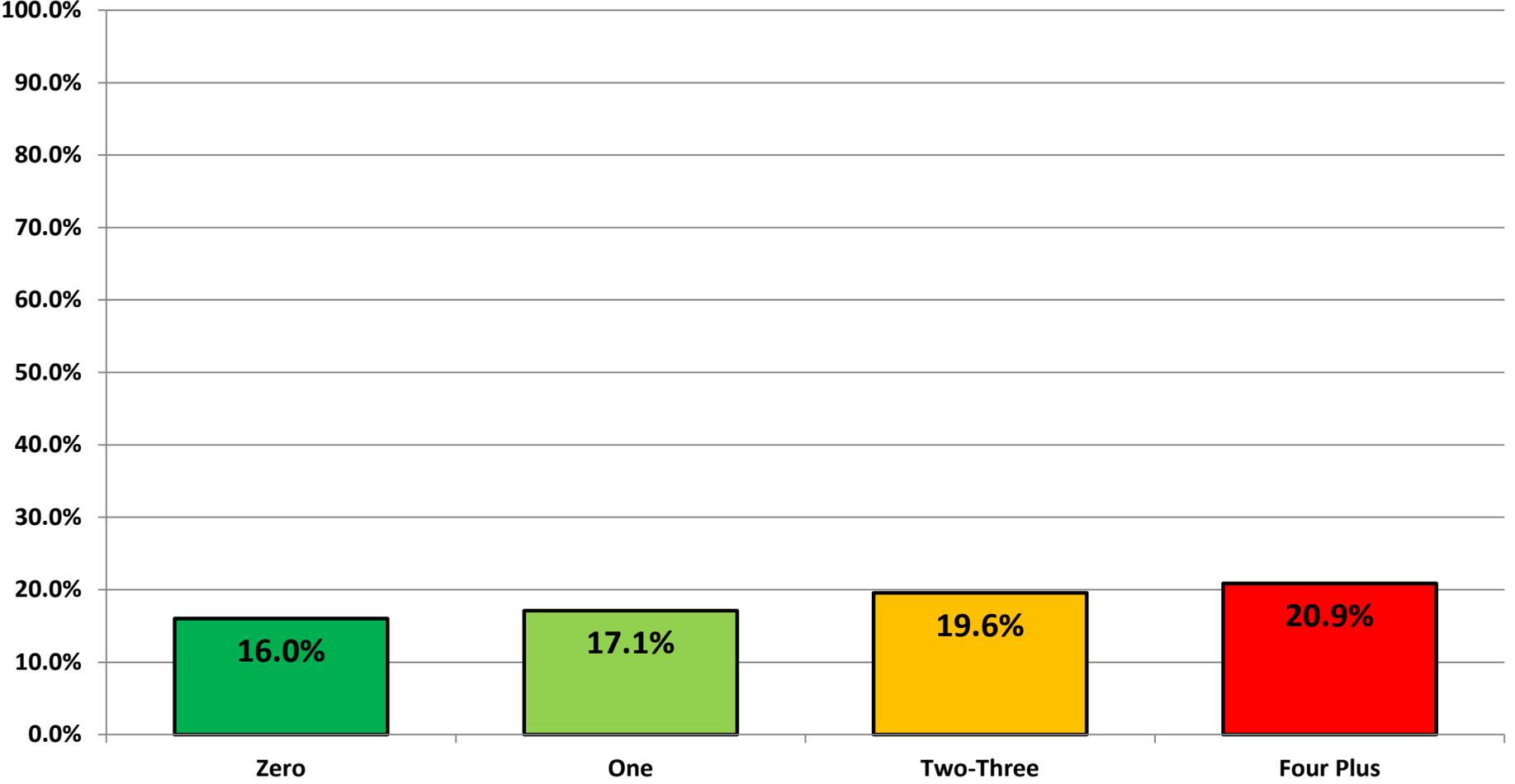
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

## Percentage of Alaskan Adults who Report Having Never Smoked by ACE Score



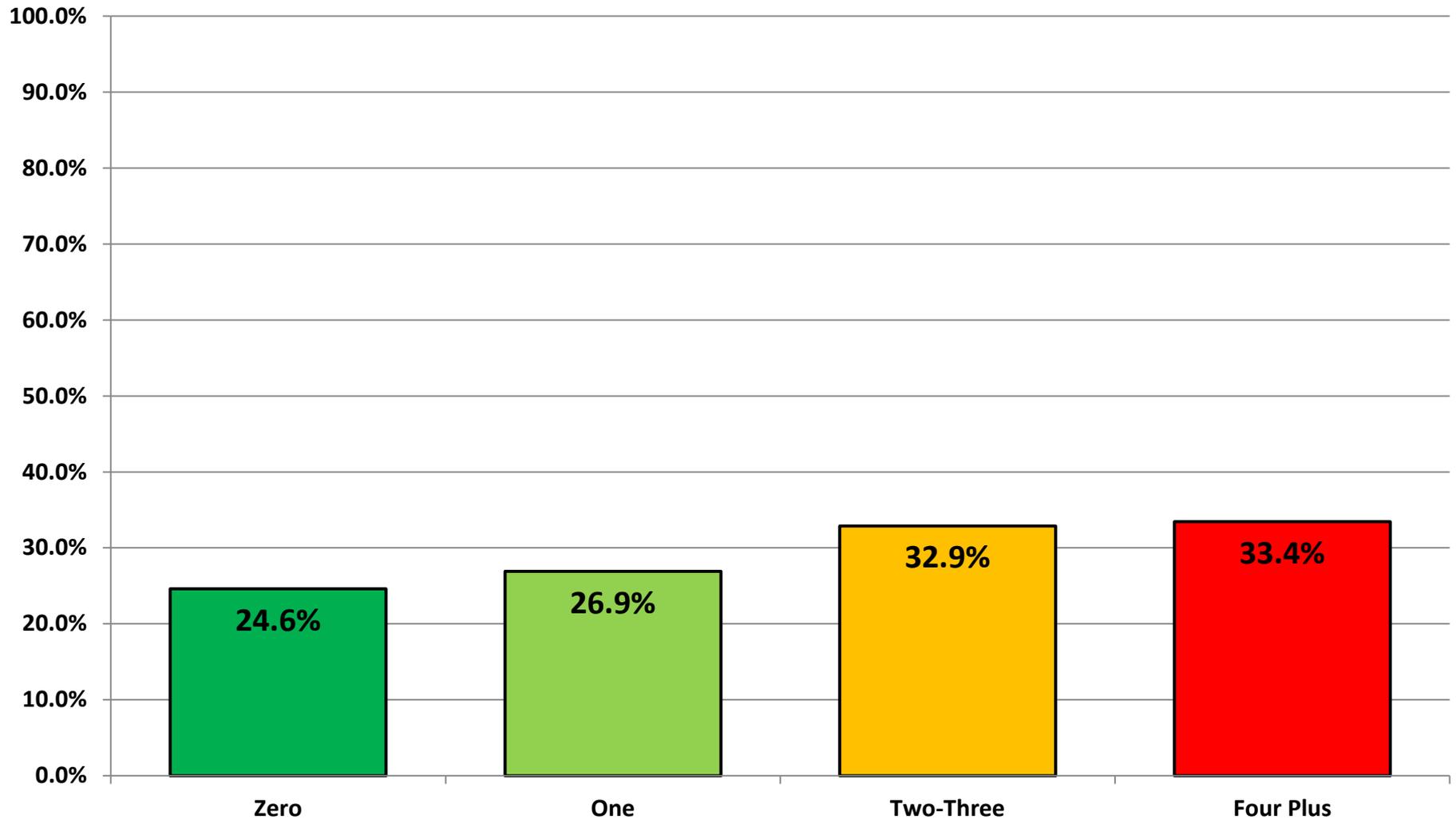
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

# Alaskan Adults Reporting Drinking Behavior at Risk for Binge Drinking by ACE Score



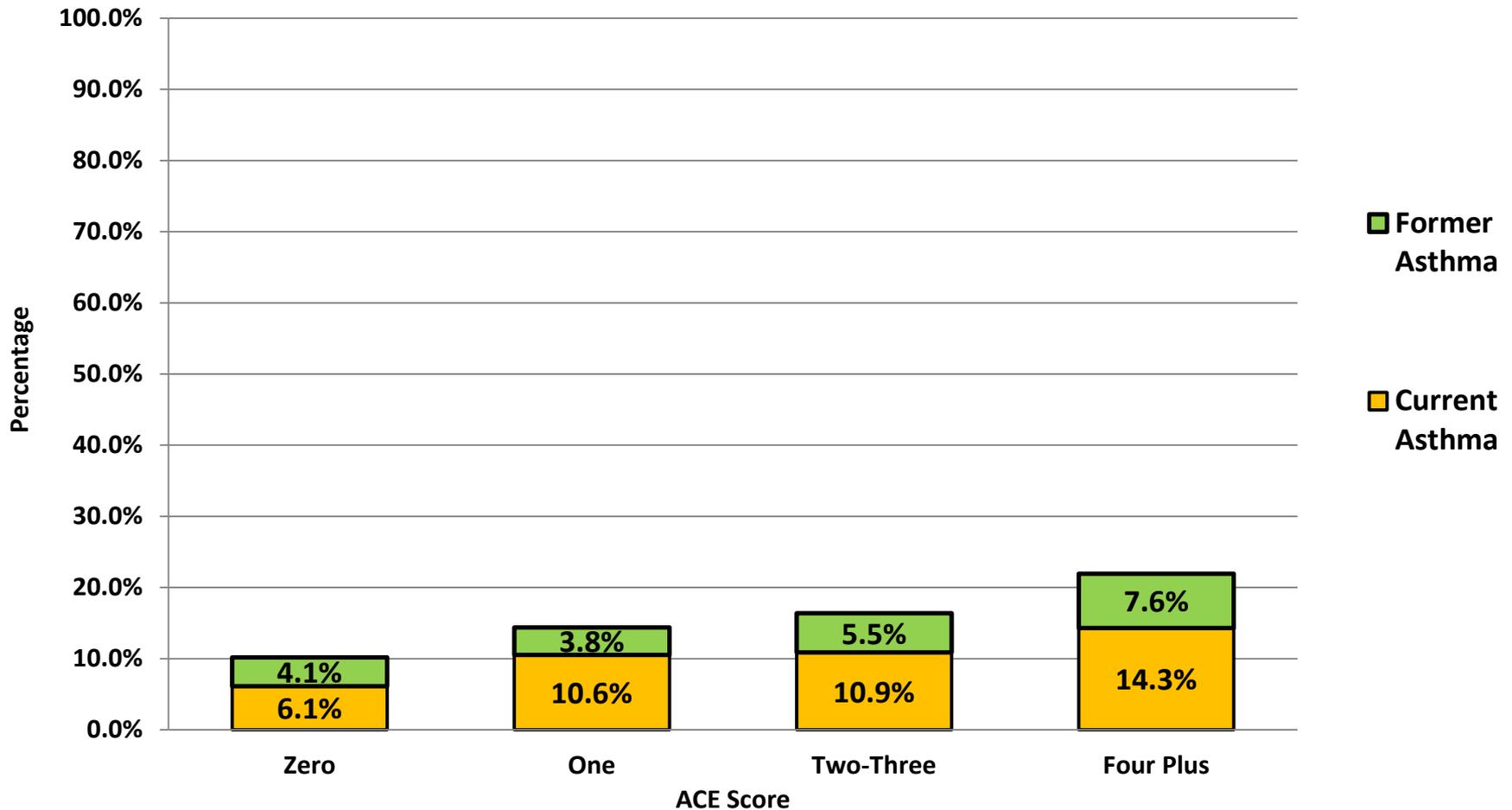
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

## Alaskan Adults who are Obese by ACE Score



**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

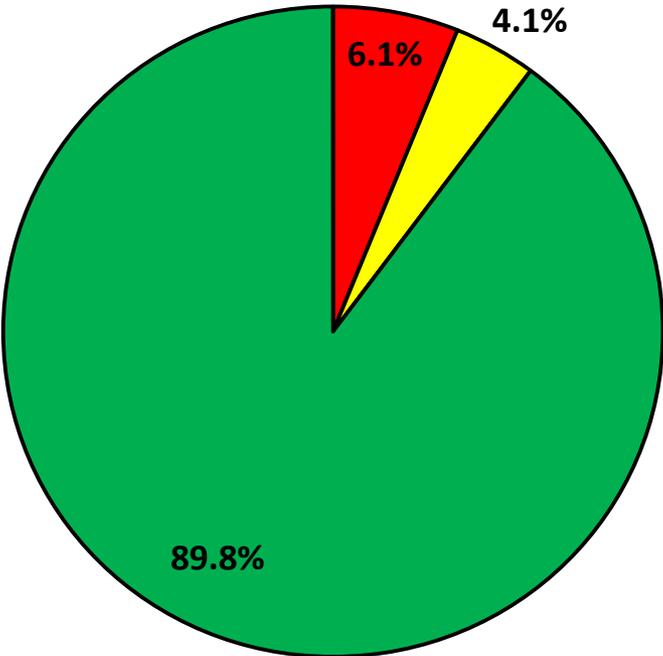
## Percentage of Alaskan Adults who Report Current or Former Asthma by ACE Score



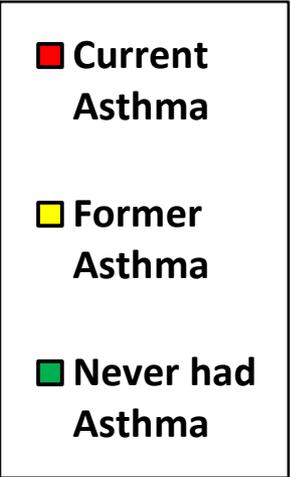
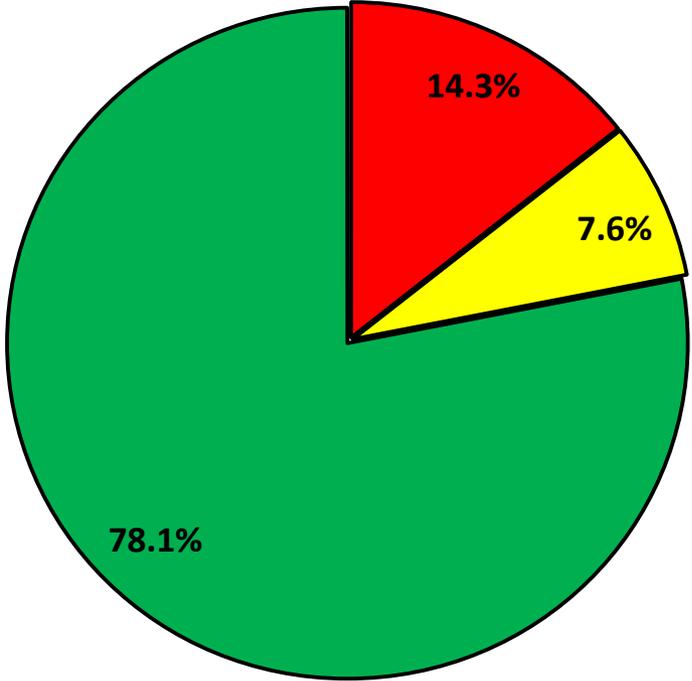
**Source:** Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion

# Alaskan Adults and Their Asthma Status with Zero and Four Plus ACEs

Zero ACEs



Four Plus ACEs



Source: Alaska data from the 2013 Alaska Behavioral Risk Factor Surveillance System, Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion