

## Meadows Mental Health Policy Institute

---

### Severe Violence Trends: Suicide, Murder, Mass Shootings, School Shootings – August 2018

#### Introduction

This report provides a quantitative perspective on the prevalence of deaths that have resulted from mass public shootings, including school shootings, and from deaths associated with murder and suicide, which occur with much greater frequency.

We first compare historical trends in the annual murder, suicide, and mass public shooting rates. These comparisons show that while **suicide rates are historically high, murder rates are low by historical standards**, in terms of the number of deaths per 100,000 people. We also show that deaths from **mass public shootings are so comparatively rare that there is not a statistically meaningful trend discernable**.

Next, we compare trends in murder rates to trends in suicide rates, including detail on suicide rates by age and gender. **Males have higher suicide rates than females**, though both rates are rising and **rates for females have risen marginally faster in recent years**. Additionally, **suicide rates have recently increased among youth**, and these rates are approaching, but yet not at historical highs last seen in the 1970s. However, **suicide rates for adults are at historical highs**.

We also compare school shootings to a much more frequent cause of death among youth, specifically automobile accidents. Trends reveal that the automobile-related death rate among youth has plummeted in recent decades (largely because of improvements in safety technology), but **the automobile-related death rate is still many times higher than deaths from school shootings**. Furthermore, as with mass public shootings, **there is not a discernable, statistically meaningful trend in school shootings over time**.

Our final analysis shows annual per capita rates of mass public shootings and school shootings, per 10,000,000 people in the United States. Even with this magnitude in scale, the data do not reveal discernible or statistically meaningful trends over time.

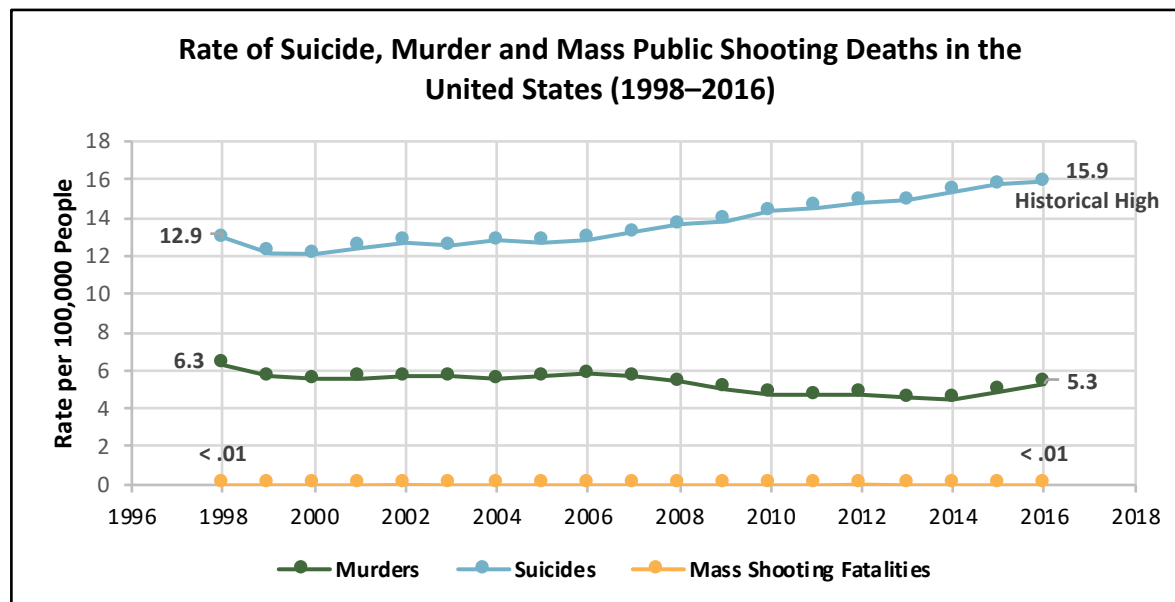
#### Suicides, Murders, and Mass Public Shooting Fatalities Among All Ages<sup>1</sup>

Deaths from mass public shootings<sup>1</sup> are very rare compared to deaths from suicide or murder. Nationally, the rate of suicide has increased since 1999, while the murder rate has declined.

---

<sup>1</sup> Mass public shooting and associated fatalities are defined as public shooting incidents that are neither gang-related nor suicide-related and result in four or more gun-related fatalities. See the Crime Prevention Research Center: <https://crimeresearch.org>. For additional information on how mass shootings have been historically

Among these violent events, deaths from mass public shootings (65) in 2016<sup>2</sup> constitute only one tenth of one percent (0.1%) of the total number of deaths from murder and suicide (62,215). Suicides constitute nearly two thirds of all gun-related deaths between 2012 and 2014;<sup>3</sup> of these deaths, more than 85% involved males, and more than 50% of these males were age 45 or older.<sup>4</sup>



defined and tracked over time, see Smart, R. (n.d.) Mass shootings: Definitions and trends. *Gun Policy in America*. Retrieved from <https://www.rand.org/research/gun-policy/analysis/supplementary/mass-shootings.html>

<sup>2</sup> Mass public shooting and school shooting data are based on the independent research of John R. Lott, Jr., founder of the Crime Prevention Research Center (CPRC). CPRC datasets are made publicly available on the website, [Crimeresearch.org](http://Crimeresearch.org). CPRC data are utilized in the absence of federal or state-sponsored surveillance systems on mass public shootings and school shootings. In the absence of a published methodological summary, MMHPI recognizes the possible presence of systematic bias within these datasets because of data collection and/or classification processes performed by Crime Prevention Research Center's research staff. None of Lott's interpretations or analyses were applied to the summative findings of this briefing.

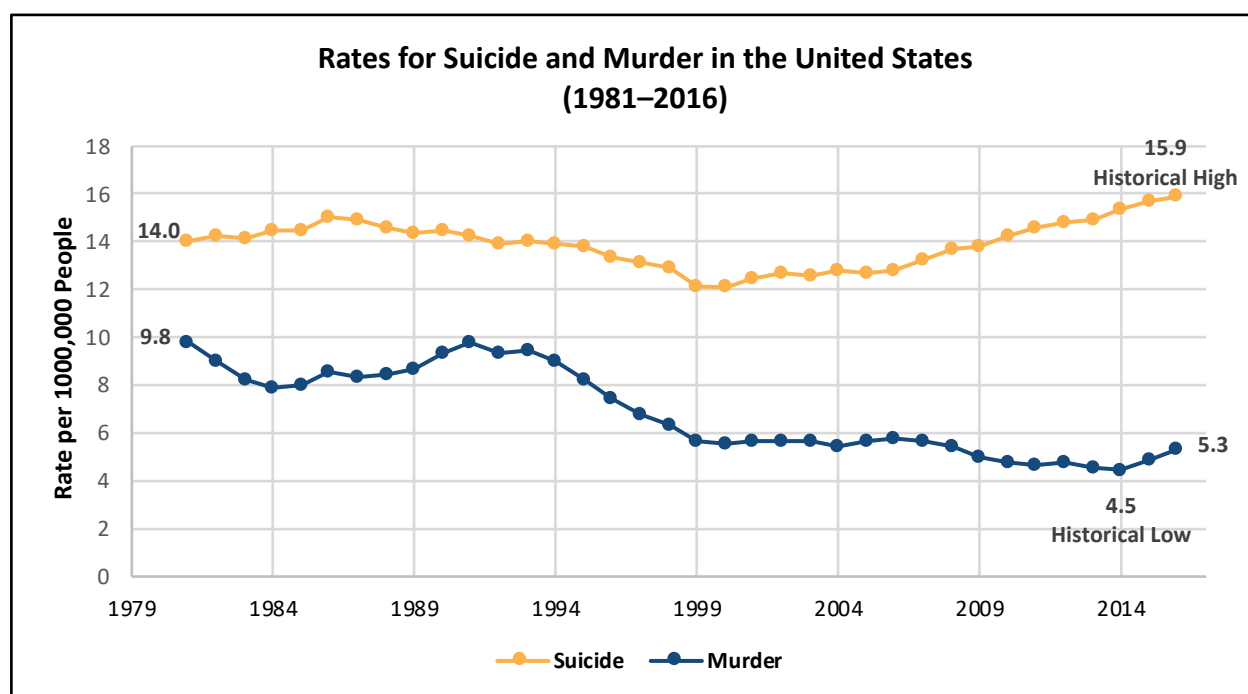
<sup>3</sup> National suicide data are sourced from Centers for Disease Control and Prevention, National Center for Health Statistics. Fatal Injury Reports on the CDC's Web-based Injury Statistics Query and Reporting System, released December, 2017. The crude rates are reported for all people excluding children under age 10. The national murder rate is sourced from FBI, Uniform Crime Reports, prepared by the National Archive of Criminal Justice Data.

Mass public shooting data derived from Lott Jr., J.R. (2018). Detailed information on mass public shootings from 1994 through March 2018. Crime Prevention Research Center. Retrieved from <https://crimeresearch.org/data/>

<sup>4</sup> Casselman, B., Conlen, M., & Fischer-Baum, R. (2017). Gun deaths in America. *FiveThirtyEight*. Retrieved from <https://fivethirtyeight.com/features/gun-deaths/>. Suicide data are based on the CDC's Multiple Cause of Death database within the National Center for Health Statistics.

### Suicide Rates Compared to Murder Rates<sup>5</sup>

- The annual suicide rate is much higher than the annual murder rate. On average, the national suicide rate has been two to three times higher than the national murder rate since 1997.
- The national murder rate has increased slightly over the past two years<sup>6</sup> although historically the murder rates has been as great as 10 deaths per 100,000 people. Comparatively, the suicide rate has been steadily increasing since the year 2000.
- The national suicide rate among people age 10 and older was nearly 16 deaths per 100,000 people in 2016. While this rate is a historical high, slightly lower suicide rates were observed in the 1980s, when the suicide rate reached 15 deaths per 100,000 (1986).

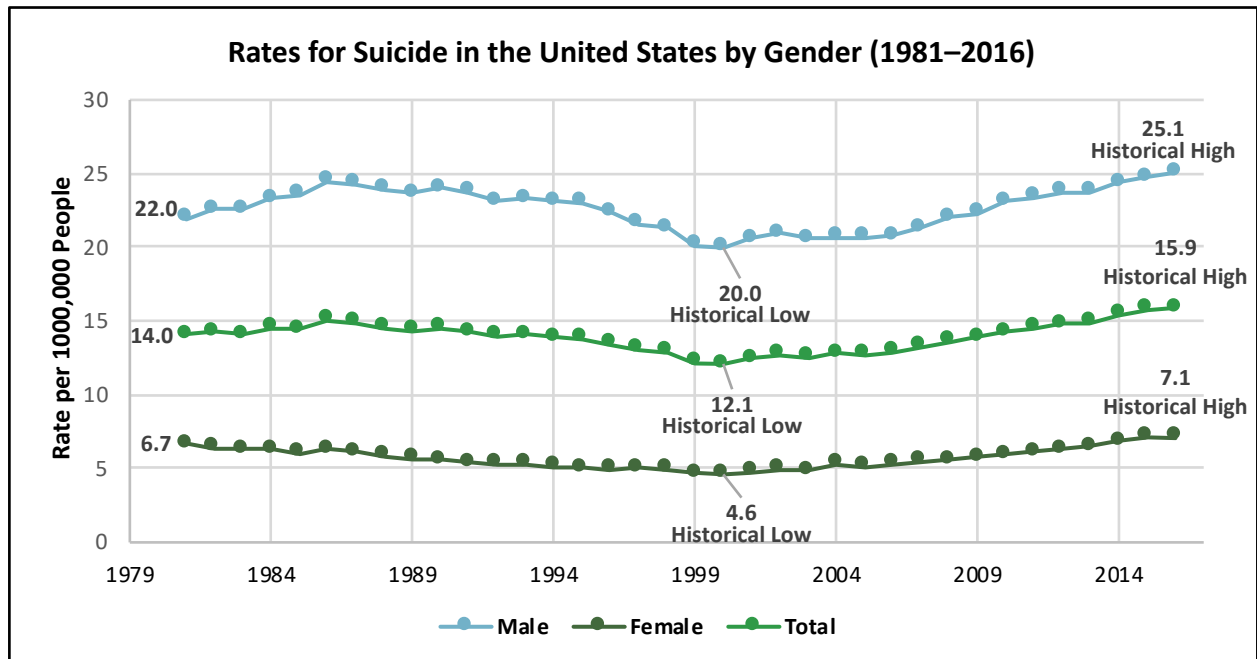


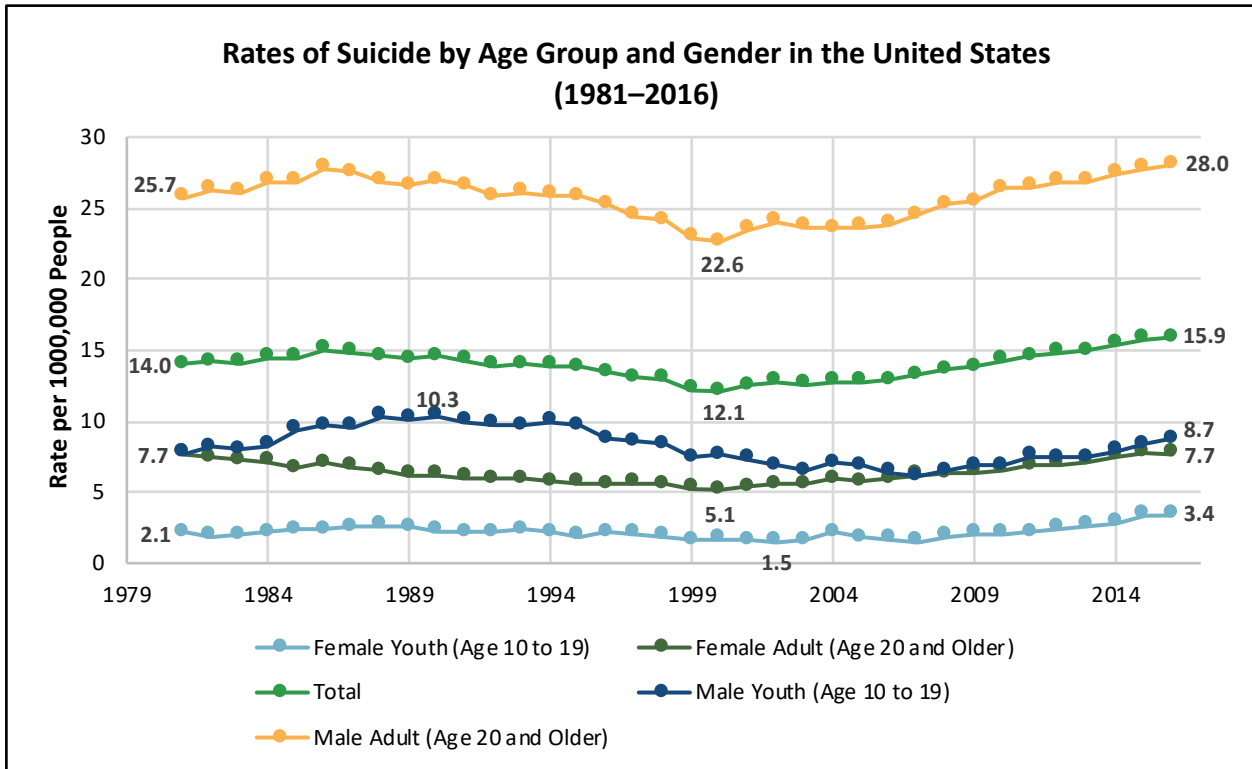
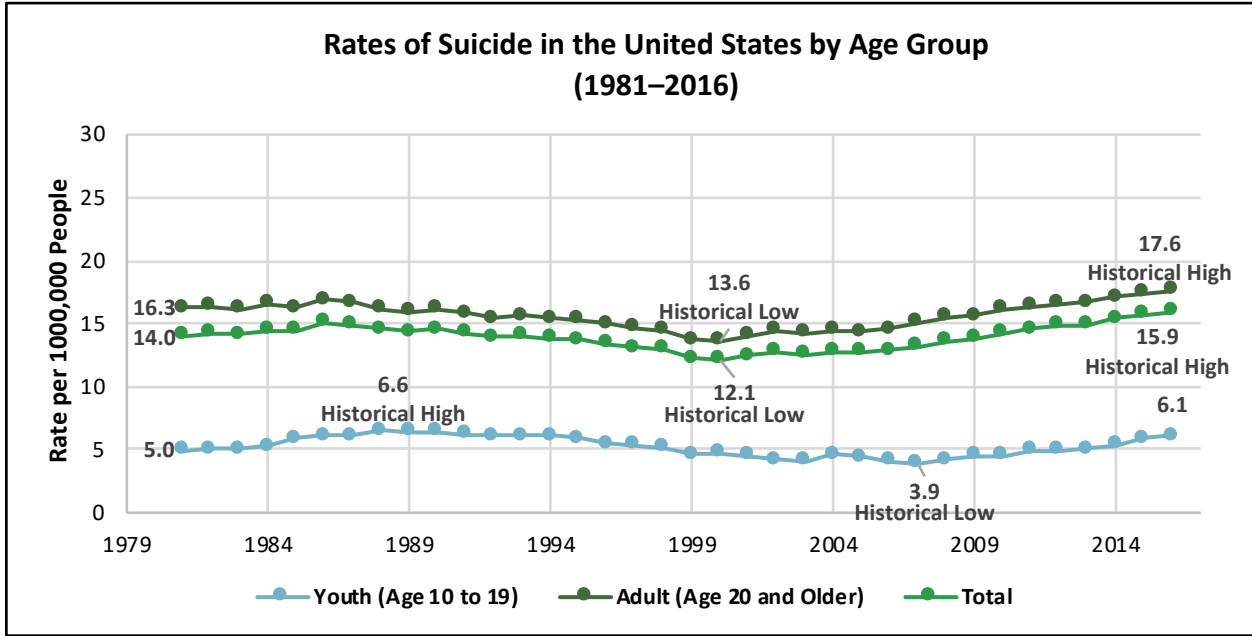
<sup>5</sup> National suicide data are sourced from Centers for Disease Control and Prevention, National Center for Health Statistics. Fatal Injury Reports on the CDC’s Web-based Injury Statistics Query and Reporting System, released December, 2017. The reported crude rates are reported for all people excluding children under age 10. The national murder rate is sourced from FBI, Uniform Crime Reports, prepared by the National Archive of Criminal Justice Data.

<sup>6</sup> The murder rate has increased 19% to 5.3 deaths per 100,000 people between 2014 and 2016.

### Suicide Rates Across Gender and Age Groups

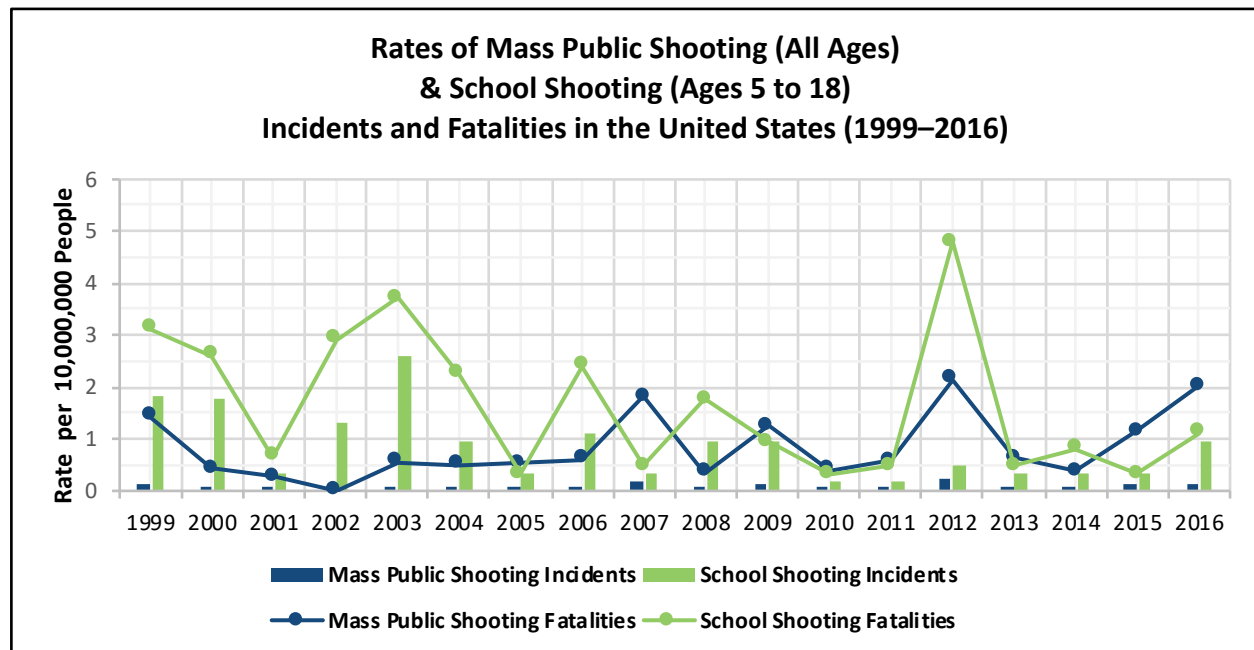
Age and gender are risk factors associated with suicide. Historically, the suicide rate of males is three to five times higher than the suicide rate of females in any given year. However, over time, the trend lines have been similar, as suicide rates for both groups have been increasing over the past 10 years. Adults (age 20 and older) have a disproportionately higher rate of suicide (17.6 deaths per 100,000 people) compared to youth (age 10 to 19, 7.1 deaths per 100,000 people) in 2016. High suicide rates among adult males predominantly drives this difference. Since 1981, the adult male suicide rate has been three to four times greater than the rate for adult females and male youth. Although female youth have the lowest suicide rate among these groups, they also have a historically high suicide rate for their group (3.4 deaths per 100,000 people) in 2016.





## Mass Public Shooting Fatalities and School Shootings<sup>7</sup>

An examination of the rarest violent events (mass public shootings and school shootings) reveals relatively little change in the annual rates of national incidents and fatalities since 1999. Although the *number* of fatalities from mass public shootings (65) peaked in 2016, the rate did not represent an all-time high. The following chart displays the trends in the rates of mass public shooting and school shooting incidents and fatalities per 10 million people over time.



## Automobile, Bus, and School Shootings Among Children and Youth<sup>8</sup>

Deaths from mass public shootings are very rare as compared to deaths from automobile accidents among children and youth. Nationally, the rate of automobile-related deaths among children and youth ages 5 to 18 has dramatically declined since 2002, although there has been a slight increase between 2015 and 2016. Despite this decline, school shooting fatalities<sup>9</sup> still constitute fewer than 1.0% (7 total deaths) of the total deaths attributed to automobile accidents (710 total deaths) among youth in 2016. Comparatively, the relative risk of dying from a shooting at a school is also extremely rare: a rate of about one death per one million people, which represents approximately the same chance of dying in a school *bus* accident. The

<sup>7</sup> Mass public shooting and school shooting data derived from Lott Jr., J.R. (2018). Detailed information on mass public shootings from 1994 through March 2018. Crime Prevention Research Center. Retrieved from <https://crimeresearch.org/data/>

<sup>8</sup> Mass public shooting data derived from Lott Jr., J.R. (2018). Detailed information on mass public shootings from 1994 through March 2018. Crime Prevention Research Center. Retrieved from <https://crimeresearch.org/data/>

<sup>9</sup> A “school shooting” is defined as a shooting incident on a K-12 school campus that is neither gang related nor suicide related.

following chart displays the rates of deaths related to automobiles, bus accidents, and school shootings per 100,000 people, between 1999 and 2016.

