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A Tale of Two Shooters: Predicting Mass Shooter Outcomes by Race

A Thesis submitted in partial satisfaction of the  
requirements for the degree Master of Arts  
in Sociology

by

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The thesis of Sara Aubrey Tyberg is approved.

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## ABSTRACT

### A Tale of Two Shooters: Predicting Mass Shooter Outcomes by Race

by

Sara Aubrey Tyberg

Approximately 40% of mass shooters die during their own shootings, yet little is known about patterns in mass shooter outcomes. This warrants increased attention to mass shootings as unique events in which the choices made by shooters and police officers may be shaped by their orientations to aspects of gender and race. Using Stanford University Geospatial Center's Mass Shootings in America database, I examine the outcomes of 212 mass shootings occurring between 1966 and 2016 to test for racial differences in the likelihood of shooters' death by suicide and homicide. Findings from multinomial regression demonstrate significantly higher odds of death by self-inflicted suicide for white than Black mass shooters, but no Black-white difference in the odds of death by homicide or cop-assisted suicide. These findings advance knowledge on mass shootings and mass shooter outcomes by revealing racialized patterns. Further research should aim to better understand police response to these crisis situations, how law enforcement behaviors affect mass shootings, and the role of suicide in mass shooting motivations.

## INTRODUCTION

The 1992 Schuyler County social services shooting and the 2008 Kirkwood City Council shooting share several similarities. In both shootings, the perpetrator was in their 50s, targeted government buildings, used handguns, and died during their shootings (Kates 1992; Davey 2008; Nizza and Baranauckas 2008).<sup>1</sup> Although neither perpetrator survived their attack, they died in different ways. At the end of the Schuyler County shooting, the perpetrator—a white man—died by self-inflicted firearm suicide (Kates 1992). The Kirkwood City Council shooter—a Black man—died when he was fatally shot by police (Davey 2008). These events offer an example of the different possible outcomes for mass shooters, despite these two shootings operating under similar circumstances. Do the different outcomes in these cases reflect a racialized trend across events of this type? This paper examines the gendered and racialized identities of a mass shooter as one set of factors relating to their cause of death. Framed by the dichotomy of white masculinity and suicide versus police-involved homicides of Black men, I explore the convergence of gender and racial identities among mass shooters' outcomes.

The academic study of mass shootings is a relatively new field (Kim, Capallan, and Adler 2021) spanning the disciplines of sociology, criminology, psychology, media studies, and health studies, among others, and there is still much to be learned about mass shootings and how to prevent them. Over the past twenty years, the annual number of mass shootings in the U.S. has grown thirteen times since 2000 (Bridges and Tober 2022:12). Although

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<sup>1</sup> In support of the “No Notoriety” (n.d.) and “Don’t Name Them” Campaigns (ALERT n.d.), and Lankford and Madfis’ (2018) research on fame-seeking and copycat attempts among mass shooters, I do not call perpetrators by name in this paper.

some mass shootings have also occurred outside of the United States—including notable attacks in Australia, Norway, New Zealand, and Canada (Boyko 2021; *Brittanica* 2021; Lanthier and Cooper 2021; Mac, Browning, and Frenkel 2022; Ray 2022)—more mass shootings have occurred in the United States than any other country in the world (Bridges and Tober 2019, 2022). While mass shootings are rare relative to other types of violent crime (e.g., Smart and Schell 2021; Bridges and Tober 2022), they dominate media attention when they occur (Elsass, Schildkraut, and Stafford 2016:445-6) and can dramatically impact the broader social, emotional, and financial well-being of surrounding communities. Despite widespread discussion of several solutions to the problem of mass shootings (e.g., Newman et al. 2004; Langman 2010), little has been done to reduce the number of mass shootings occurring each year.

While women have the same level of access to guns in the U.S., nearly all perpetrators of these attacks are men (e.g., Kellner 2008; Madfis 2014; Bridges and Tober 2019, 2022). Examinations of masculinity among mass shooters have addressed misogyny (Geller, Booty, and Crifasi 2021; Silva et al. 2021; Everytown for Gun Safety 2022), the normalization of gun violence among men (Neroni 2000; Katz and Kellner 2008; Kellner 2008), and feelings of entitlement (Madfis 2014), providing useful gendered analyses of these perpetrators and their attacks. Discussions of race in mass shootings have also emerged—at times, coinciding with analyses of masculinity (Kellner 2008; Madfis 2014)—and typically address the racism of white mass shooters, especially in instances where perpetrators intentionally targeted marginalized groups (e.g., the 2018 Tree of Life synagogue shooting or the 2022 Buffalo, NY shooting) or explicitly expressed white supremacist viewpoints (e.g., Mirpuri 2016; Allam 2019; Cai et al. 2019). Although this

research offers valuable insight into the overlap between white supremacist and alt-right extremism among mass shooters, not all mass shooters are white men (Lankford 2016), and some of the most well-known shootings in the U.S. (e.g., the 2007 Virginia Tech shooting or the 2016 Pulse Nightclub shooting) were perpetrated by men of color. Moreover, previous research has identified differences in mass murders by the race of perpetrators (Lankford 2016), pointing to a need for further examination of mass shooting incidents by race.

The limited research on this topic (Lankford 2015, 2016) suggests notable differences between mass shooters who do and do not survive their attacks. In this paper, I focus on Black and white men, because they perpetrate the majority of mass shooting incidents but have divergent experiences in the overall population when it comes to firearm suicide and homicide. By examining Black and white men mass shooting perpetrators, I am able to identify if general racialized and gendered patterns of firearm deaths map onto the specific case of mass shooting perpetrators. A better understanding of the relationship between the racialized masculinity of mass shooters and their outcomes—and differentiating between causes of death—could offer new insight into mass shootings as sites of social reproduction.

To address this gap, I conduct multinomial logistic regression analysis of 212 mass shootings from Stanford University Geospatial Center’s Mass Shootings in America (MSA) database to investigate how a shooter's race relates to their cause of death. My analysis provides a window into the persisting relationship between white masculinity and firearm suicide in the case of mass shootings, demonstrating higher odds of death by self-inflicted suicide for white than Black mass shooters. This study offers evidence for understanding mass shooter homicide-suicides as “deaths of despair” (Case and Deaton 2015), in which



violence is leveraged to recoup power after a perceived loss of white masculine privilege. I also find no Black-white difference in the odds of death by homicide or cop-assisted suicide. Taken together, I illustrate alternative ways future research might consider how racialization in police-perpetrator interactions may affect the outcomes of mass shooting tragedies.

## **LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

Despite growing attention to demographic patterns of mass shooters (Kellner 2008; Madfis 2014; Bridges and Tober 2019), insights from the sociologies of race and gender together remain underdeveloped and disjointed in mass shootings scholarship. I bring together these literatures to frame mass shootings as unique events where particular forms of racialized masculinity shape distinct outcomes for mass shooting perpetrators. I first discuss the masculinization of gun culture, highlighting how gun ownership is celebrated among white men as a means of upholding traditional masculinity. I then bring together two bodies of scholarship not traditionally put in conversation—the prevalence of suicidality among white men and police violence perpetrated against Black men—to suggest patterns we might expect when mass shooters die during their shootings. Next, I discuss how the law enables police officers to use excessive force and how law enforcement typically responds to mass shootings, acknowledging their limited involvement with perpetrators. I then highlight the three potential outcomes for mass shooters who die—self-inflicted suicide, cop-assisted suicide, or homicide—and describe how these outcomes may be racialized for Black and white mass shooters.

### *Racialized Masculinities and Gun Culture*

The relationships between masculinity and gun ownership, gun culture, and gun violence are well documented. Approximately 62% of American gun owners are men, and about 39% of American men own guns compared to 22% of women (Horowitz 2017; Parker et al. 2017:18). In the U.S., firearms are gendered as masculine, offering gun owners a perceived source of power, control, and empowerment associated with traditional masculinity (Gibson 1994; Kellner 2008; Levin and Madfis 2009; Stroud 2012; Carlson 2015b; Bridges and Tober 2019; Warner et al. 2022).

Additionally, scholarship shows that this gendered form of empowerment offered by guns in the U.S. is particularly felt among white men—and heightened among white men in economic distress (Mencken and Froese 2019). Evidence for this is best illustrated in some of the qualitative research on gun owners. In her interview research of Michigander gun carriers, Carlson (2015c) finds that both privileged white men and working-class white men and men of color carry guns to assert masculinity, expressing concern over contemporary socioeconomic decline that has relatively impeded men’s ability to occupy provider roles. While working-class men personally experienced the effects of socioeconomic decline (e.g., job loss, firsthand victims of crime, etc.), Carlson (2015c:392) finds that privileged white gun carriers owned guns as a result of their generalized anxiety about socioeconomic decline without having experienced it themselves. In this way, guns are “more symbolic than instrumental” for this group of privileged white men (Carlson 2015c:392). Similarly, Stroud (2012) finds, in her study of Texan men with concealed carry permits, that economically privileged white men talk about carrying concealed handguns via masculine narratives of heroism and self-defense, even if they never brandish their weapons. Simply having a gun is enough to feel powerful (Stroud 2012).

Yamane (2017) highlights a prominent shift in American gun culture from the recreational use that characterized the first two-thirds of the 20th century to armed self-protection which began in the 1970s, calling this new era of gun ownership “Gun Culture 2.0.” While new research suggests that there may be multiple contemporary gun cultures within the United States (Bridges and Tober 2022), the Gun Culture 2.0 framework remains useful to understand how gun ownership has mobilized in response to sociocultural changes and perceived loss of privilege by groups in power. The men in both Carlson’s (2015c) and Stroud’s (2012) research justify concealed carry by evoking racialized stereotypes of low-income, predominantly Black and Brown neighborhoods as dangerous, emphasizing a distinctly white racialized desire to carry guns for purported safety while moving through these areas. Furthermore, gun carriers stress heteronormative gender relations and signal that gun ownership recoups their ability to protect their wife and children (Stroud 2012; Carlson 2015c). Yet, owning a gun rarely results in use for self-defense (Cook 2013), and owning guns increases the risk of gun violence in the home (e.g., Kellermann et al. 1992; Anglemyer, Horvath, and Rutherford 2014; Studdert et al. 2020). Instead, Carlson (2015c:401-2, emphasis in original) argues that “what guns *did* protect against was a gendered threat: the threat of falling down the masculine hierarchy.” Gun ownership may, in actuality, endanger gun carriers and the people around them despite symbolically preserving their masculinity.

### *Race, Gender, Suicide, and Homicide*

Given the masculinization of firearms and the frequency with which men own them, it follows that men are disproportionately impacted by both suicide and homicide by

firearm. Women have the same level of access to firearms as men do, yet gun violence is overwhelmingly more likely to be committed by men, and men are also more likely to be victims of gun violence (FBI 2019; CDC 2020a). In 2019, men accounted for approximately 78% of suicides, 80% of homicide victims, and 88% of homicide perpetrators in the United States (FBI 2019; CDC 2020a).<sup>2, 3</sup> Of men who died by suicide, over half used a firearm while less than one-third of women who died by suicide did so (CDC 2020a). These trends in suicide and homicide mortality align with scholarship depicting American gun culture as a masculine phenomenon.

Although suicide and homicide both skew masculine, these acts differ markedly by race. White men comprise 88% of all men who die by suicide with a suicide mortality rate approximately two times higher than that of Black men (CDC 2020a). Further, we know that rates of death due to suicide vary substantially by state (CDC 2020b), and U.S. states with the highest rates of firearm suicide death have the largest proportion of their populations living in rural contexts, many of which are predominantly white (Case and Deaton 2015). Case and Deaton (2015) use the term “deaths of despair” to jointly describe suicide,

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<sup>2</sup> Research shows that women report suicidal ideation and attempt suicide more frequently than men, but men complete suicide more often—in part, because men are almost eight times more likely than women to use firearms, a more effective method, when attempting suicide (Giffords Law Center 2018:27). Furthermore, while gun ownership among women has increased (Carlson 2015a; Elinson 2021) and firearm suicide has just recently surpassed other methods to become the most common method for women who die by suicide (Garnett, Curtin, and Stone 2022:4), these changes have not reversed the persisting relationship between men, masculinity, and suicidality.

<sup>3</sup> Note that national statistics on homicide are, unfortunately, imperfect. The FBI’s data on gun homicides are aggregated from the Uniform Crime Report, for which individual police departments voluntarily elect to submit their data to the FBI each year; because this process is optional, not all police departments nor states participate. Therefore, homicides may be vastly undercounted.

alcoholism, and drug-related deaths that have increased among working-class whites, especially those in rural areas with lax social policies (e.g., gun restrictions). They illustrate how the relationship between whiteness and suicidality may be intertwined with economic precarity and social isolation—reinvigorating Durkheim’s ([1897] 2013) theory of egoistic suicide—particularly in comparison to other racial and ethnic groups that possess relatively more intergroup connectedness, such as through strong shared religiosity (Frakt 2020). Siddiqi et al. (2019) build on Case and Deaton’s (2015) research, suggesting that these “deaths of despair” among working-class whites can be observed more broadly among white Americans, not only those who personally experience economic precarity or social isolation.<sup>4</sup>

Further, Metzl (2020) suggests that white Americans are “dying of whiteness,” that is, white racial identity fundamentally contributes to rising white mortality rates. Metzl (2020) illustrates how investment in whiteness ultimately harms white Americans through their overall support of conservative social policies that do not operate in their material self-interests but reinforce ideologically beneficial hierarchies of power. For example, at a Missouri support group for families of firearm suicide victims, group members explicitly state that they do not blame guns for their losses and remain adamantly pro-gun in their politics (Metzl 2020:32-3). These individuals maintain unwavering support for political structures that reinforce white racial hierarchy and gun culture while firearm suicides surge in their region. In this way, Metzl (2020) illustrates the intensity of the ways in which

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<sup>4</sup> Low reported rates of suicide among Americans of color may also be, in part, an issue of measurement. Research (Rockett et al. 2010; Huguet, Kaplan, and McFarland 2012) shows that Black and Brown Americans are much more likely to have their deaths labeled as “indeterminant” or classified incorrectly than those of white Americans.

ideological investments in whiteness and gun culture may shape choices in relation to self-harm.

Conversely, Black men are significantly overrepresented among homicide victims. Approximately 58% of homicide victims are Black men (CDC 2020a) who are nearly 14 times more likely to experience a gun homicide than white men (Riddell et al. 2018). Black men between the ages of 10-24 experience the highest firearm homicide rates in the nation with the most substantial increases in recent years (Kegler et al. 2022). Indeed, the observed relationship between whiteness and suicidality is reversed for communities of color, as Metz (2020:48) explains, “for each African-American who uses a gun to commit suicide, five are killed by other people with guns.” Existing scholarship shows that the relationship between race, gender, and homicide results from structural forces that drive people of color into low-income inner-city neighborhoods where concentrated poverty (e.g., Lee 2000), economic segregation (e.g., Eitle, D’Alessio, and Stolzenberg 2006), and low employment opportunities (e.g., Richardson and St. Vil 2015) encourage residents to engage in crime—including homicide—to survive.

Anderson (1994, 1999) coins the phrase “code of the street” to describe the informal rules that govern interpersonal interaction in under-resourced, high-crime urban areas. Street code “regulate[s] the use of violence and so allow[s] those who are inclined to aggression to precipitate violent encounters in an approved way” (Anderson 1994). In particular, inner-city youth utilize violence to maintain or gain respect in the neighborhood by proving their toughness in front of their peers (Anderson 1994, 1999). For these youth invested in street code, manhood is so contingent upon respect that they would do anything to sustain it (Anderson 1994, 1999). While young women and girls in these spaces also follow street

code and engage in violence to maintain status, they rarely use guns which instead heavily characterize the violence of inner-city men (Jones 2008). Gun use increases the deadliness of street fights and, combined with the need to not show fear of dying (Anderson 1994, 1999), helps to explain why investment in the street code increases young Black men's violent victimization (Stewart, Schreck, and Simons 2006).

Further, Black and Brown communities not only suffer from intragroup homicide but also experience violence from law enforcement in the form of racial profiling, overpolicing, and police brutality. Ethnographic research (e.g., Rios 2011, 2015; Duck 2015; Stuart 2016) demonstrates how interactions with law enforcement pervade the daily lives of young men of color who must carefully navigate these situations. Existing research shows that unarmed, nonaggressive Black men are more likely to be killed by police than unarmed, nonaggressive white men (Ross, Winterhalder, and McElreath 2021). Indeed, Martin and Kposowa (2019:1) highlight that, in 2015, nearly one-third of Black victims of police violence were unarmed in comparison to only one-fifth of white victims. Scholarship in the fields of sociology and sociolegal studies explains police violence against people of color via various mechanisms, including racial bias among officers (Scott et al. 2017), state-level racism (Mesic et al. 2018), and structural racism in the criminal justice system (e.g., Crenshaw 1991; Alexander 2012; Chaney and Robertson 2013). Structural racism can be produced even in the absence of racist intentions (Bonilla-Silva 2013). At the same time, police brutality is an intentional aspect of the criminal justice system as these systems are designed to enable this behavior (e.g., Butler 2017; Cazenave 2018). Police brutality—empowered through systems, policies, and practices—also retains some explicit protection under U.S. law.

### *The (Il)legality of Police Violence*

As established by *Tennessee v Garner* (1985) and *Graham v Connor* (1989), police are permitted by law to use deadly force in two situations: 1) to protect their own life or the life of another person from harm, and 2) to prevent a suspect from escaping if there is “probable cause to think the suspect poses a dangerous threat to others” (Lind 2016). These decisions attest that there are circumstances under which it is appropriate for police officers to shoot with the intent to kill. This allowance is based on the “objective reasonableness” of the officer’s judgment, considering the “severity of the crime at issue, whether the suspect poses an immediate threat to the safety of the officers or others, and whether [the suspect] is actively resisting arrest or attempting to evade arrest by flight” (*Graham v Connor* 1989:396). However, “objective reasonableness” is determined by attempting to understand the officer’s perspective at the time of the shooting, implicitly granting some leniency rather than evaluating in hindsight if the officer’s judgment was reasonable (*Graham v Connor* 1989:396). Additionally, since *Graham v Connor*, cases of deadly police force have increasingly invoked the Fourth Amendment (i.e., the right to search and seizure), which Obasogie and Newman (2018:1474) argue depoliticizes, deracializes, and dehistoricizes police violence by reducing it to “a one-to-one dynamic between the state and a citizen that limits the matter solely to the protection and constitutional articulation of that singular individual’s rights and remedies” rather than acknowledging the sociocultural forces at play between the criminal justice system and people of color. Further, it is exceptionally difficult to criminally prosecute police officers for the use of excessive force (Zimring 2017) for many reasons, including that it is challenging “for the state to disprove the perception of that



threat” (Berman 2021). Indeed, of the over 1,000 incidents of officer-involved fatalities in the U.S. every year, only 121 police officers have been arrested for manslaughter since 2005, of which only 44 cases have resulted in convictions (Dewan 2020; Lopez 2021).<sup>5</sup> The verdict of *Graham v Conner* places excessive faith in individual law enforcement officers as well as the criminal justice system to make equitable determinations when research has shown that the system is not designed to effectively prosecute law enforcement.

Mass shootings represent rare situations where the use of lethal force by law enforcement would likely find widespread support from the general public.<sup>6</sup> Capellan and Jiao (2019:20) assert that first responder intervention in a mass public shooting reduces the shooting’s lethality “by an average of two fatalities and two injured victims.” However, police responses to mass shooter events often receive criticism, specifically concerning the timeliness of arriving to the scene and the effectiveness of interrupting shooting events (e.g., Reid and Dobuzinskis 2017; Alanez et al. 2018; Macias Jr. 2021; Goodman 2022). In one study of 186 mass shootings, police only arrived on the scene in time to follow their response protocol one-third of the time (Linger 2018:1). Even trained law enforcement who successfully arrive at the scene of a mass shooting may not then follow their training

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<sup>5</sup> When officers are convicted, it is also usually for a lesser charge than manslaughter (Dewan 2020; Lopez 2021). To note, even when officers are not formally convicted for using deadly force, they may experience other consequences, such as job termination (Dewan 2020; Lopez 2021).

<sup>6</sup> To my knowledge, no data exists addressing the degree of support for the use of deadly police force to stop mass shooters. However, 95% of Americans favor “increased training for police officers and first responders on how to respond to active shootings” (Gallup 2018) and approximately 68% of people can imagine a circumstance in which they would “approve of a policeman striking an adult male citizen” (Smith et al. 2021b) which increases to approximately 79% if the citizen “was attacking the policeman with his fists” (Smith et al. 2021a). This leads me to believe that a substantial majority of Americans would support police violence to interrupt an ongoing mass shooting.

appropriately, as was the case in the 2018 Marjory Stoneman Douglas High School Shooting in which Broward County police officers failed to “rush toward gunshots and neutralize the killer” as their training advised them (Alanez et al. 2018).

While many police departments train to confront perpetrators in the event of an active shooter (Jimenez, Dewan, and Baker 2022), there are no mandated federal guidelines for such training, only recommendations (Diaz 2022; FBI n.d.), resulting in inconsistent response practices across the country. Although the law enforcement officers who responded to the 2022 Robb Elementary School shooting were trained in active shooting scenarios, they viewed the perpetrator as a “barricaded subject scenario”—because he was contained within a classroom—rather than an “active shooter,” which resulted in an improper protocol response (Burrows, Moody, and Guzman 2022:52). Furthermore, there may be many different authority figures at a shooting scene (e.g., teachers, principals, security officers, local law enforcement, state law enforcement, etc.) with conflicting understandings of best practices for handling an active shooter or may otherwise hesitate to act, feeling like they should defer action to another person of authority. For example, 376 law enforcement officers responded to the Robb Elementary School shooting, “making the scene chaotic, without any person obviously in charge or directing law enforcement response” (Burrows et al. 2022:64, 75). Further, it took over an hour for officers to confront the perpetrator, because Uvalde School District police officers waited for the United States Border Patrol to lead the breach of the classroom where the shooter was positioned, likely contributing to the number of fatalities (Burrows et al. 2022:57).<sup>7</sup>

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<sup>7</sup> In another example, in the 2018 Marjory Stoneman Douglas High School shooting, MSDHS teachers and staff did not call a Code Red, because they reported not knowing the criteria for calling a Code Red, who had the authority to call it, or when it was appropriate to

## *Understanding the Fate of Mass Shooters*

Even after taking these existing issues of police response to mass shootings into consideration, law enforcement officers seldom have the opportunity to confront mass shooters, in part because shooters may have already died by self-inflicted suicide by the time police arrive (Blair et al. 2013:62; Buchanan and Leatherby 2022). Anywhere from 32% to 48% of mass shooters do not survive their shootings, and among those who do die, approximately 75% die by self-inflicted suicide (Lankford 2015:361; Stanford Geospatial Center 2016; Everytown for Gun Safety 2020).<sup>8</sup> Of those who do not die by self-inflicted suicide, as many as 10% of the remaining deceased shooters die in an alternative method of suicide called “suicide by cop” (Lankford 2015:361) in which a perpetrator provokes law enforcement to shoot by enacting threatening behavior (Mohandie, Meloy, and Collins 2009:456).<sup>9</sup> In a recent interview (Warner 2022), mass shooting researchers Jillian Peterson and James Densley claim that mass shootings are invariably situations that “mass shooters design [...] to be their final acts.”

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make that determination (MSD Public Safety Commission 2019:51). In another fatal error resulting from issues of authority, the MSDHS School Resource Officer instructed other deputies to remain 500 feet away from the location of shots fired, which “conflict[s] with current law enforcement response procedures to active shooter situations. Law enforcement officers should try to eliminate any immediate threat even if that requires approaching gunfire and danger” (MSD Public Safety Commission 2019:97).

<sup>8</sup> These approximations vary due to differing criteria for defining mass shootings in existing research and different databases of incidents.

<sup>9</sup> Cop-assisted suicide is generally understudied—due to the difficulty of distinguishing it from homicide as well as “the immediate removal of suicide attempts from the criminal process and placement within the mental health arena” (Pinizzotto, Davis, and Miller III 2005:19)—yet one study shows that 36% of all officer-involved fatalities may be classified as cop-assisted suicide (Mohandie et al. 2009:458).

In this way, true homicide—that is, homicide with no intention on the part of the victim to die—may be a rare occurrence for mass shooters, considering the frequency with which perpetrators express suicidality (e.g., Lankford 2018; Lankford, Adkins, and Madfis 2019; Peterson et al. 2021; Buchanan and Leatherby 2022). Yet, the distinction between cop-assisted suicide and homicide is blurry. It is not possible to know shooters’ intentions at the time of their death, even if they expressed prior suicidality. Moreover, about half of all mass shooters survive their attacks, potentially suggesting that suicidal ideation is not universally felt among mass shooters. Unfortunately, there are still many unknowns regarding mass shooting perpetrators and the circumstances surrounding those who die.

Using data (n=185) from NYPD’s Active Shooters Report, Lankford (2015:367) examines differences between mass shooters who survive or die in their shootings. Lankford (2015:367-8) finds that four characteristics—the number of guns used, the number of fatalities, whether the shooting occurred at a factory/warehouse, and whether the shooting occurred at an open commercial site—affect the likelihood of the shooter dying.<sup>10</sup> While Lankford’s work provides an initial exploration into what factors shape the likelihood of a mass shooter dying in their own shooting event, it does not delineate between shooters who die by suicide versus homicide in their shootings or include race in the analysis. In a subsequent paper, Lankford (2016) uses a mass murder dataset from the FBI supplementary homicide reports (n=242) to examine differences among mass murderers by race and finds that white perpetrators were more likely to die at their crime scene than Black perpetrators.

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<sup>10</sup> In the NYPD Active Shooter dataset used by Lankford (2015:366), location types include 1) factory/warehouse, 2) office building, 3) open commercial, 4) school, and 5) “other.” Lankford (2015:366) transformed each location type into a dichotomous variable with “other” as the reference category.

Although Lankford (2016:483) does not differentiate between causes of death,<sup>11</sup> he attributes these findings to the high rates of suicide among white Americans and low rates of suicide among Black Americans.

Lankford examines how race may affect the outcomes of mass murderers more generally but again neglects to differentiate between causes of death by race. Additionally, by examining all mass murders rather than limiting his analysis to mass shootings, Lankford's sample captures a variety of violent crimes (e.g., public mass shootings, robberies, domestic/family killings, etc.) that themselves may be different enough that differentiating by perpetrator outcomes may not be as meaningful. How might the consideration of race and the cause of death together offer new insights into our understanding of the racialized masculinity of mass shooters?

### *The Present Study*

To my knowledge, no research has examined race as a factor contributing to mass shooter outcomes. Many mass shootings are characterized as homicide-suicides in which the shooter kills himself after shooting others. Yet, not all mass shooters die by self-inflicted suicide in their shootings. Instead, some die at the hands of law enforcement, and these deaths may be selectively classified as either cop-assisted suicide or officer-involved homicide.

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<sup>11</sup> Lankford (2016:476) describes the variable *offender died* in his analysis as perpetrators who “die[d] as a direct result of the crime, due to suicide, ‘suicide by cop,’ or being killed on site, and did not include offenders who were arrested and eventually sentenced to death by capital punishment.” Although differences in cause of death are acknowledged here, Lankford does not differentiate between these causes in the analysis.

The divergent racialized demographics of suicide and homicide in the United States, in combination with the prevalence of police violence perpetrated against Black men, allow us to develop empirical predictions about how the racialization of mass shooters may influence their cause of death. To begin, the high rate of suicide among white men as compared to other groups suggests that white mass shooters will be more likely to die by suicide.

***H1:** White mass shooters are more likely than Black mass shooters to die by suicide at their crime scene.*

Similarly, the high rate of homicide among Black men—especially in officer-involved interactions—as compared to other groups suggests that Black mass shooters will be more likely to die by homicide.

***H2:** Black mass shooters are more likely than white mass shooters to die by homicide at their crime scene.*

In the case of mass shooters, however, many homicides could be considered cop-assisted suicides in which the perpetrator continues threatening behavior, instigating the police to kill them. This distinction suggests three possible fatal outcomes for mass shooters: dying by self-inflicted suicide, cop-assisted suicide, or true homicide. Given the literature described above, the high rate of suicide among white men as compared to other groups suggests that white mass shooters will be more likely to die by self-inflicted suicide.

***H3:** White mass shooters are more likely than Black mass shooters to die by self-inflicted suicide at their crime scene.*

On the one hand, if we conceptualize cop-assisted suicide as a form of suicide, it would follow that white mass shooters should be more likely to die by cop-assisted suicide than

Black mass shooters. On the other hand, if we conceptualize cop-assisted suicide as a form of officer-involved homicide, it would follow that Black mass shooters should be more likely to die by cop-assisted suicide than Black mass shooters. These two conceptualizations lead to competing predictions:

***H4a:** Black mass shooters are more likely than white mass shooters to die by cop-assisted suicide at their crime scene.*

***H4b:** White mass shooters are more likely than Black mass shooters to die by cop-assisted suicide at their crime scene.*

If neither hypothesis is supported, there may not be racialized patterns in instances of cop-assisted suicide or there may be countervailing processes preventing racialized dynamics from emerging. Cop-assisted suicide may present more similarly to suicide in some cases and more like homicide in others. Alternatively, issues of racial identification between law enforcement and mass shooting perpetrators may obscure patterns of cop-assisted suicide among shooters.

## **DATA AND METHODS**

### *Sample*

I use data from the Stanford Mass Shootings in America (MSA) data project (Stanford Geospatial Center 2016). This dataset contains 335 mass shooting events from 1966-2016 with over 40 variables.

One challenge posed by mass shooting research is the variety of ways researchers define shooting events. As Bridges and Tober (2019) acknowledge, “many data sets of mass shootings rely on different definitions—and different definitions produce different samples.”

Some of the most well-known mass shooting databases use divergent definitions. For example, *Mother Jones*' Mass Shootings database includes instances "in which three or more victims were killed" (Follman, Aronsen, and Pan 2020). The Violence Project has a cutoff of four or more fatalities by firearm for their definition of a mass shooting (Peterson and Densley 2020). Stanford's database (2016) includes any incidents with "three or more shooting victims (not necessarily fatalities), not including the shooter" and "must not be identifiably gang, drug, or organized crime-related." By limiting mass shootings to those that were not gang, drug, or otherwise crime-related, they attempt to capture the "seemingly spontaneous shooting incidents" which illustrate the "particular phenomena" of mass shootings in America (Stanford Geospatial Center 2016).

As a result of these definitional differences, each of these databases contains a different assortment of mass shootings. In fact, the overlap of cases between mass shooting datasets is astoundingly low (Booty et al. 2019; Bridges and Tober 2022). The conceptualization of mass shootings used by the MSA dataset aligns with some previous scholarship and undoubtedly diverges from others. Ultimately, I selected this database because of its academic foundation, documented methodology, and organized structure. Using a dataset that defines mass shootings in terms of injuries caused, rather than only fatalities, also offers a better sense of the shooter's intended magnitude of violence while providing a larger sample size for analysis. Additionally, no one has examined these data with this question in mind and few have published using the MSA data.<sup>12</sup>

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<sup>12</sup> I plan to conduct robustness checks of the findings presented in this paper using two other mass shooting datasets, the *Mother Jones* and The Violence Project datasets, to include in future iterations of this work.



## *Measures*

### ***Dependent variables.***

I examine differences in the cause of death of American mass shooters by race. I employ multinomial logistic regression models using the dependent variable, *shooter's cause of death*, to predict whether shooters died at their crime scene by homicide or suicide, with shooters who lived representing the omitted category. The original variable is described in these data as “the general cause of death at the time of the incident” and divided into three categories: “killed,” “suicide,” and “not applicable” (Stanford Geospatial Center 2016). The MSA does not provide further detail on the shooter’s cause of death beyond this—that is to say, if the shooter was killed, the dataset does not offer *by whom* the shooter was killed. Therefore, I reviewed the “killed” entries in the dataset to determine if these shooters were killed by police officers. Using news media articles acquired via Google News, I removed two cases—the 1982 Miami, Florida, welding shop shooting and the 2016 Wilmington, Delaware, shooting—in which the shooter was killed or suspected to be killed by a civilian rather than law enforcement. In all other instances of homicide, the shooter was killed by law enforcement.

Additionally, MSA’s original dataset does not specify incidents where perpetrators may die via “suicide by cop,” in which a perpetrator provokes law enforcement to shoot by enacting threatening behavior (Mohandie et al. 2009:456). This is notable, because even perpetrators who are killed during their shooting may have expressed that they expected or even desired this outcome (Lankford and Cohen 2020). Because we might anticipate differences between shooters who die by “suicide by cop” compared to those who die by traditional homicide, I also reviewed the “killed” entries in the dataset to determine what

proportion of shooters killed occurred through “suicide by cop.” Using news media articles acquired via Google News, I assessed the details of each incident to determine the circumstances surrounding the shooter’s death. I define suicide by cop as “a method of suicide occurring when a subject intentionally does not cease threatening behavior in the presence of law enforcement that results in the subject’s death.” For example, I coded the 2013 Santa Monica College shooting as a cop-assisted suicide, because the perpetrator was killed in a shootout with the police, inciting the police to kill him (Lah and Hannah 2016). Through this process, I identified 29 of 34 total homicides in the dataset as “suicide by cop” or “cop-assisted suicide.” I call these 29 cases “cop-assisted suicide” to acknowledge the role of law enforcement in these deaths while contrasting this form of suicide from “self-inflicted suicide” wherein perpetrators take their own life. That the majority of instances where shooters are killed can be relabeled as cop-assisted suicide suggests that perhaps traditional homicide is an uncommon occurrence in the case of mass shootings, and “suicide by cop” or “cop-assisted suicide” provides a better characterization of these incidents. However, there is no way to know with complete certainty that these shooters were attempting to die, and it is important to recognize that all we know for sure is that they were killed by law enforcement. Therefore, I drop the five cases of “true” homicide (see Appendix A) in the multinomial logit analysis to test Hypotheses 3, 4a, and 4b (examining shooters who died by self-inflicted [n=68] or cop-assisted [n=21] suicide versus those who lived [n=118]) but retain them to test Hypotheses 1 and 2 (examining shooters who died by self-inflicted suicide [n=68] or were killed by police—whether in an assumed suicide attempt or not [n=26]—versus those who lived [n=118]).

***Independent variables.***

*Shooter's race* is the focal independent variable to determine differences in mass shooter outcomes by race. Racial categories in the MSA dataset are based on the 2000 U.S. Census Bureau and include five distinct racial categories (“White American or European American,” “Black American or African American,” “Native American or Alaska Native,” “Asian American,” “Native Hawaiians or Other Pacific Islander”) as well as “Some other race,” “Two or more races,” and “Unknown” (Stanford Geospatial Center 2016). For 51 shootings, the shooter’s race was unknown. Of these unknown cases, 28 are missing, because the shooter was never identified. Of the remaining 23 cases where race was coded as unknown, there were eight instances in which shooters could be racialized with information gathered from online news sources. In two cases, shooters’ racial identity was made available via their inmate profiles on state correctional facility search engines. For the other six cases, images of the shooter were available in news reports or obituaries. Consistent with previous work on street race (Lopez et al. 2018), I racialized these shooters to reduce missing cases and add to the database.<sup>13</sup> I use the dummy variable *white shooter* (=1, Black shooter=0) for analysis and drop shootings with perpetrators of all other races.<sup>14</sup>

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<sup>13</sup> While seeking updated data for shooters with missing racial information, I came across one shooter, the perpetrator of the Ladera Ranch shooting, whose racial identity seemed inaccurate. The shooter was identified in the MSA database as “White American or European American,” when a better racial identification category may be “Some other race” based on the shooter’s name (derived of Arabic origin), perceived street race (nonwhite), and the conservative political commentary that emerged from the shooting surrounding the shooter’s assumed religious identity (Muslim) (Schlüssel 2013). I included this correction in my updated race variable.

<sup>14</sup> While the dummy variable for race in my analysis compares white shooters with Black shooters, see Appendix B for analysis using a dichotomous race variable comparing white shooters (n=130) with all shooters of color (n=131). Running analysis with all shooters of color rather than Black shooters alone does not meaningfully change the results.

While my data allows me to conduct analysis of mass shooters by race, it is imperative to note that a perpetrator's racial identity may not be salient to law enforcement officers during an attack. In this way, the data is limited in capturing nuance in police-perpetrator interactions and racialization of perpetrators by individual police officers. However, mass shooters are still subject to racialization in their lives leading up to their attacks and will therefore approach their shootings in racialized ways. I examine shooters' racialization not only as an interactional social process between police and perpetrators, but also as a process of self-understanding and action in response to a lifetime of racialized interactions. In this way, I attempt to capture the differential outcomes of mass shooters by race while acknowledging the limitations of this data.

I include the *average shooter's age* (averaging the ages of all shooters involved in each incident, ranging from 12 to 70 years old), *the year of the shooting* (ranging from 1966 to 2016), *if the shooting was school-related* (a dummy variable where yes=1), and *the total number of fatalities* (ranging from 0 to 49, not including the shooter) as control variables. Before conducting my analysis, I removed all known events with women shooters, accounting for only nine (2.7%) shootings in the database. By eliminating these shootings, I hold gender constant, so my analysis isolates differences by race among men shooters. Prior to analysis, I also removed ten cases that contained duplicate information in the database. After these selections and the omission of cases with missing values, the sample includes 212 shootings.<sup>15</sup>

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<sup>15</sup> N = 207 when the true homicide cases are removed for testing Hypotheses 3, 4a, and 4b.

### *Analytic Strategy*

I analyze racial differences in mass shooter outcomes using multinomial logistic regression analysis. If the outcomes of mass shooters follow general racialized trends of suicide and homicide deaths of American men, I would expect the odds of suicide (relative to survival) to be higher for white than Black mass shooters and the odds of death by police to be greater for Black than white shooters. However, the conceptualization of cop-assisted suicide as either a form of suicide or a form of homicide offers competing hypotheses. If cop-assisted suicide presents more similarly to suicide, I would expect the odds of cop-assisted suicide (relative to survival) to be higher for white than Black mass shooters. On the other hand, if cop-assisted suicide presents more similarly to homicide, I would expect the odds of cop-assisted suicide (relative to survival) to be higher for Black than white mass shooters.

I first present descriptive statistics for the variables used in the analysis, including t-tests illustrating the differences in means by race (white shooters vs Black shooters) for the sample. I use multinomial logistic regression analysis to separate shooter outcomes by cause of death, because “artificially forcing all observations” into a dichotomy, such as in logistic regression, can be “more concealing than revealing” (Knoke, Bohrnstedt, and Mee 2002:314). My research questions require more categories of observation to examine multiple possible causes of death (e.g., suicide, homicide, etc.) compared to survival rather than grouping all deceased shooters together, regardless of cause of death. I use multinomial logistic regressions to predict the odds that white and Black mass shooters die in their shootings by suicide or homicide as opposed to survive. I run two models for these analyses: first, omitting the *total number of fatalities* variable and then including it. Finally, I again

use multinomial logistic regressions to conduct a more granular analysis, predicting the odds that mass shooters die in their shooting by self-inflicted suicide or cop-assisted suicide as opposed to survive.

## **RESULTS**

Descriptive statistics for variables in my analytic sample, overall and by race, are shown in Table 1. Approximately 45% of shooters in the sample died, the majority of whom died by self-inflicted suicide. Of the total sample, about 32% died by self-inflicted suicide while 12% died by homicide. Note the large overlap between deaths by homicide and deaths by cop-assisted suicide. Nearly 10% of the total sample died by cop-assisted suicide, and these cases are also included in the *shooter died by homicide* variable, meaning that only 2% of the sample (n=5) died by “true” homicide. The full sample is split between 60% white shooters and 40% Black shooters. The average shooting in the sample was perpetrated by a 31-year-old who killed nearly four people at a location other than a school. Only 26% of shootings in the sample were classified as school shootings.

My sample is descriptively similar to that of Lankford’s (2015:366) study in terms of the proportion of perpetrators dying (45% to 48% respectively), shooter’s age (31.21 to 34.03), whether the shooting took place at a school (26% to 32%), and the average total number of fatalities (3.68 compared to 3.22).

**Table 1. Descriptive Statistics for Variables Included in the Analyses, Overall and by Race**

<i>Variable</i>	<i>Mean (SD)</i>	<i>White Shooters</i>	<i>Black Shooters</i>	<i>t-test sig.</i>
		<i>Mean (SD)</i>	<i>Mean (SD)</i>	
<b>Dependent Variables</b>				
Shooter Deceased? †	0.448 (—)	0.538 (—)	0.305 (—)	***
Shooter Died by Self-Inflicted Suicide? †, §	0.321 (—)	0.408 (—)	0.183 (—)	***
Shooter Died by Homicide? †, §	0.123 (—)	0.131(—)	0.110 (—)	
Shooter Died by Cop-Assisted Suicide? †, §	0.099 (—)	0.108 (—)	0.085 (—)	
<b>Independent Variables</b>				
White Shooter? †	0.613 (—)	1.000 (—)	0.000 (—)	
Year of Shooting	2005.948 (12.010)	2004.008 (12.622)	2009.024 (10.314)	**
School Shooting? †	0.259 (—)	0.300 (—)	0.195 (—)	
Shooter's Age, in years	31.213 (12.356)	32.031 (13.618)	29.917 (9.981)	
Total Number of Fatalities	3.684 (3.798)	4.477 (4.223)	2.427 (2.563)	***
<b>Observations</b>	212	130	82	

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

† 0 = no, 1 = yes

§ as a percentage of the sample

**Source:** Stanford Geospatial Center. 2016. "Stanford\_MSA\_Database." *Stanford Mass Shootings of America Project*. Stanford, CA: Stanford University Libraries. Retrieved March 9, 2021 (<https://library.stanford.edu/projects/mass-shootings-america>).

On average, white shooters were more likely to die in their shooting than survive when compared to Black shooters (about 54% compared to 31%) and more likely to die by self-inflicted suicide (about 41% compared to 18%), which is consistent with extant literature on the white racialization of suicide. There are no significant differences by race in the means for shooters dying by homicide or cop-assisted suicide. On average, white shooters perpetrated chronologically earlier shootings ( $M = 2004$ ) than Black shooters ( $M = 2009$ ). Even though white mass shooters died in their shootings more often, they also perpetrated deadlier shootings. Black mass shooters killed an average of two fewer people than did white shooters. Finally, there are no significant differences by race between the average shooter's age or whether the shooting occurred at a school.

Table 2 displays the results of multinomial logistic regression analysis predicting mass shooter deaths by suicide or homicide versus survival. Model 1 omits the *total number of fatalities* variable from analysis while Model 2 includes it. In doing so, Model 2 controls for the deadliness of the shooting, taking into consideration that white mass shooters on average perpetrate deadlier shootings than Black mass shooters, which might affect police behavior.

In Model 1, I find that the odds of death by suicide (vs. survival) are nearly four times higher for white than Black mass shooters ( $\exp[1.351]=3.86$ ). This provides support for Hypothesis 1, which predicted that white mass shooters would be more likely to die by suicide at their crime scene than Black mass shooters. Contrary to my expectations posed in Hypothesis 2, Black mass shooters were no more likely to die by homicide than survive compared to white shooters. The year of the shooting and whether the shooting took place at



a school have no correlation to shooters dying by suicide or homicide versus surviving. The odds of death by both suicide and homicide increase with the shooter's age.

**Table 2. Multinomial Logistic Regression Models Predicting Mass Shooter Death, 1966-2016**

<i>Variable</i>	<i>Model 1</i>		<i>Model 2</i>	
	<i>Suicide</i> §	<i>Homicide</i> §	<i>Suicide</i> §	<i>Homicide</i> §
White Shooter? †	<b>1.351***</b> (0.377)	0.698 (0.476)	<b>1.035**</b> (0.396)	0.450 (0.490)
Year of Shooting	0.011 (0.017)	-0.0121 (0.021)	0.031 (0.019)	0.003 (0.022)
School Shooting? †	-0.637 (0.517)	-0.912 (0.707)	-0.299 (0.554)	-0.605 (0.721)
Shooter's Age, in years	<b>0.066***</b> (0.017)	<b>0.048*</b> (0.021)	<b>0.062***</b> (0.017)	<b>0.041+</b> (0.021)
Total Number of Fatalities	—	—	<b>0.233***</b> (0.066)	<b>0.190*</b> (0.076)
Constant	<b>-1.277***</b> (0.319)	<b>-1.658***</b> (0.380)	<b>-2.042***</b> (0.401)	<b>-2.244***</b> (0.461)
Log Likelihood ratio test	<b>-175.076***</b>	<b>-175.076***</b>	<b>-166.349***</b>	<b>-166.349***</b>

+ p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

† 0 = no, 1 = yes

§ Shooters who lived are the omitted category

N (shootings) = 212

**Source:** Stanford Geospatial Center. 2016. "Stanford\_MSA\_Database." *Stanford Mass Shootings of America Project*. Stanford, CA: Stanford University Libraries. Retrieved March 9, 2021 (<https://library.stanford.edu/projects/mass-shootings-america>).

When the total number of fatalities is included in Model 2, the strength of the correlation of white mass shooters dying by suicide attenuates slightly. In this model, the odds of death by suicide are only 2.82 times higher for white than Black mass shooters, but the positive relationship still holds. This suggests that, even when controlling for the

deadliness of their attacks, white mass shooters remain more likely to die by suicide than survive compared to Black mass shooters. In Model 2, there is still no racial difference in the odds of mass shooters dying by homicide than surviving. For every additional victim killed, the odds a shooter dies by suicide compared to survive increased by 26%, and the odds a shooter dies by homicide compared to survive increased by 21%.

**Table 3. Multinomial Logistic Regression Models Predicting Mass Shooter Death, 1966-2016**

Variable	Model 1		Model 2	
	Self-Inflicted <sup>§</sup>	Cop-Assisted <sup>§</sup>	Self-Inflicted <sup>§</sup>	Cop-Assisted <sup>§</sup>
White Shooter? †	<b>1.355***</b> ( <b>0.378</b> )	0.749 (0.520)	<b>1.040**</b> ( <b>0.398</b> )	0.550 (0.531)
Year of Shooting	0.011 (0.017)	-0.008 (0.023)	0.029 (0.019)	0.003 (0.024)
School Shooting? †	-0.644 (0.519)	-0.595 (0.733)	-0.334 (0.559)	-0.371 (0.746)
Shooter's Age, in years	<b>0.066***</b> ( <b>0.017</b> )	<b>0.049*</b> ( <b>0.023</b> )	<b>0.062***</b> ( <b>0.017</b> )	<b>0.042+</b> ( <b>0.023</b> )
Total Number of Fatalities	—	—	<b>0.238***</b> ( <b>0.067</b> )	<b>0.152+</b> ( <b>0.085</b> )
Constant	<b>-1.279***</b> ( <b>0.320</b> )	<b>-1.956***</b> ( <b>0.425</b> )	<b>-2.065***</b> ( <b>0.406</b> )	<b>-2.392***</b> ( <b>0.509</b> )
Log Likelihood ratio test	<b>-165.045***</b>	<b>-165.045***</b>	<b>-156.332***</b>	<b>-156.332***</b>

+ p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

† 0 = no, 1 = yes

§ Shooters who lived are the omitted category

N (shootings) = 207

**Source:** Stanford Geospatial Center. 2016. "Stanford\_MSA\_Database." *Stanford Mass Shootings of America Project*. Stanford, CA: Stanford University Libraries. Retrieved March 9, 2021 (<https://library.stanford.edu/projects/mass-shootings-america>).

Table 3 displays a more granular analysis, showing the results of multinomial logistic regression analysis predicting the odds that mass shooters die by self-inflicted suicide or cop-assisted suicide versus survive. Again, Model 1 omits the *total number of fatalities* variable while Model 2 includes it to control for the deadliness of perpetrators' shootings.

In Model 1, I find that the odds of death by self-inflicted suicide (vs. survive) are 3.88 times higher for white than Black shooters. This provides evidence in support of Hypothesis 3, which predicted that white mass shooters would be more likely to die by self-inflicted suicide than Black mass shooters. However, I find no racial difference in the odds of dying by cop-assisted suicide, contrary to Hypotheses 4a and 4b.

When the total number of fatalities is added to the analysis in Model 2, the strength of the correlation between self-inflicted suicide and whiteness again attenuates slightly. This is similar to the findings presented in Table 2 using cop-assisted suicide. In both Model 1 and Model 2 of Table 3, the year of the shooting and whether the shooting took place at a school have no correlation to the perpetrator dying by self-inflicted suicide or cop-assisted suicide versus survive.

## **DISCUSSION**

As Peterson and Densley suggest in a recent interview (Warner 2022), "It's hard to focus on the suicide because [mass shootings] are horrific homicides. But it's a critical piece because we know so much from the suicide prevention world that can translate here."

However, to examine suicidality in mass shootings without acknowledging the gender and race of mass shooters who die by self-inflicted suicide is to ignore important social contexts

at play. My findings suggest significantly higher odds of death by self-inflicted suicide for white than Black mass shooters, theorizing an important racial difference in mass shooter outcomes. One possible explanation for this finding is provided by gender scholars (e.g., Gibson 1994; Daniels 1997; Faludi 2000; Hochschild 2016) who argue that perceived status loss among white heterosexual men has highlighted feelings of entitlement among this group. Indeed, Metzl (2020:270-1) explains the “trade-offs” white Americans make when under perceived threat, saying:

“It’s a narrative about how ‘whiteness’ becomes a formation worth living and dying for, and [...] the mortal risks of whiteness extend beyond questions of whether or not any one person holds any one set of biases or beliefs. Risk evolves from politics or policies that surround identities and give shape to interactions among people and communities.”

White mass shooters often express despair that speaks to this perceived loss of privilege and acknowledge that violence offers a means of recouping some of that lost power (Madfis 2014; Lankford 2018). Given that white mass shooters were more likely to die by self-inflicted suicide compared to Black mass shooters, it may be that white racialization shapes white mass shooters’ suicidal intentions. In this way, the despair explanations given for the high rate of suicide among white men more generally (Case and Deaton 2015; Siddiqi et al. 2019; Metzl 2020) may be amplified in the case of mass shooters.

Further, these findings provide evidence for Carlson’s (2020) concept of Warrior/Guardian police masculinities. Carlson (2020) argues that law enforcement officers mobilize two different police masculinities—Warrior masculinity or Guardian masculinity—in the field. Warrior masculinity is characterized by *suppressing* the gun violence of purportedly dangerous Black and Brown youth in urban areas (Carlson 2020:404, emphasis added). In contrast, Guardian masculinity is characterized by *protecting*

white suburban and rural communities from the problem of mass shootings (Carlson 2020:404, emphasis added). Carlson's (2020) Warrior/Guardian framework offers that the aggressive policing of people of color is compounded by the lenient policing of white individuals. My findings demonstrate higher odds of death by self-inflicted suicide (vs. survival) for white than Black mass shooters, yet white mass shooters perpetrated deadlier shootings on average. This suggests that white mass shooters' attacks are longer than those of Black mass shooters. When law enforcement officers respond to a mass shooting, they may mobilize Guardian police masculinities that moderates their inclination to aggress the shooter, giving greater opportunity for white mass shooters to die by self-inflicted suicide. For example, officers on the scene of the 2022 Robb Elementary School shooting took over an hour to confront the shooter (Burrows et al. 2022). While this shooter ultimately died in a shootout with police (Burrows et al. 2022), he was granted ample time to choose his manner of death.<sup>16</sup> This example illustrates how law enforcement officers responding to mass shootings may be oriented toward mobilizing Guardian police masculinities. Combined with white shooters' intentions to die by suicide, police hesitancy to confront mass shooters more generally may explain why white mass shooters die by self-inflicted suicide—but not cop-assisted suicide—more often than Black shooters.

While I do find evidence that white mass shooters die by self-inflicted suicide more often than Black mass shooters, I do not find evidence for racial differences in death by homicide or cop-assisted suicide. These findings suggest that mass shootings may be

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<sup>16</sup> To note, the Robb Elementary School shooter was Latino, not white, but this incident serves as a strong example of how police may hesitate to inflict violence against mass shooters. Indeed, the fact that police hesitated to aggress a perpetrator of color may give greater reasoning to suspect that they would also hesitate to aggress a white perpetrator.

racialized in ways more similar to self-inflicted suicide than officer-involved homicide. It is possible that I find this result because police violence against Black men simply does not play a role under these circumstances and once an active shooter is identified, lethal force by law enforcement is applied equally regardless of the perpetrator's race due to the unambiguous level of threat. Perhaps mass shooters obscure their identity using face masks (Newcomb 2012) that limits law enforcement's recognition of their race. These issues may be beyond the scope of the data used in this analysis but offer possible interpretations of my null findings.

Further, officer-involved fatalities are only one presentation of police violence, and there are other ways in which my data point to differences in law enforcement and other security officer behavior by the race of a mass shooter. Although there is no data on the duration of mass shootings, I can suppose from my finding that white mass shooters perpetrate deadlier shootings on average compared to Black shooters that white shooters may be unintentionally granted leniency during their shootings that allows them the opportunity to kill more people and themselves more often. For example, at the 2018 Marjory Stoneman Douglas High School Shooting, a school security monitor was the first to see the shooter, a white man with a rifle bag, enter school premises but did not call a Code Red for a lockdown (Alanez et al. 2018). How would security personnel have behaved differently had the gunman been a Black or Brown shooter? Although my results do not suggest that inequitable police violence impacts the odds of cop-assisted suicide or homicide for Black mass shooters, this scenario offers that there may be other ways that issues of race emerge within mass shootings. Harris (1993:1725) argues that whiteness confers privilege both in the associated benefits as well as the absence of disadvantages. In this way, white

mass shooters may be able to leverage racial privilege to access their desired shooting locations or openly carry firearms more easily compared to Black shooters.

### *Limitations*

Despite the important contributions of this paper, there are limitations to this research. The small sample size (n=212) presents one notable limitation. In particular, shooters who died by cop-assisted suicide (n=21) or homicide (n=26) comprise a small portion of total shooters, limiting my ability to identify strong relationships when separating mass shootings by shooters' cause of death. Future research that uses different datasets, different definitions of mass shootings, or different time frames may draw different conclusions. Further, it may be additionally useful to examine differences among shooters who survive their attacks, because we have more definitive information surrounding the circumstances of those shooters' outcomes than those who died. Nevertheless, my analysis offers an initial examination of the impact of racialization on mass shooting outcomes.

Second, I cannot know if law enforcement officers racialized mass shooters in ways that are consistent with their racial identity as described in the data. Some mass shooters may wear masks, hoodies, tactical headwear, or otherwise obscure themselves in ways that make their racial identity unknown to law enforcement (Newcomb 2012). In this way, police may not always interact with shooters in consistently racialized ways. While I cannot know with certainty if or how police racialized shooters, I do know that white mass shooters died more often by self-inflicted suicide compared to Black mass shooters. In this way, my findings effectively measure how shooters themselves are self-racialized in terms of their approach and intentions regarding their attacks.

Lastly, some portion of self-inflicted suicide cases in the MSA dataset undoubtedly occurred prior to law enforcement's arrival on the scene. Existing research shows that mass shootings are often completed before the police arrive (Blair et al. 2013:62; Buchanan and Leatherby 2022) and many mass shooters pre-plan their suicides to coincide with their attacks (e.g., Lankford 2018; Lankford et al. 2019; Buchanan and Leatherby 2022). The shootings in the MSA database are comparable in many ways but not every way, and the data does not allow for a granular separation between shooters who died by suicide pre- and post-police arrival. In this way, my analysis may overstate the relationship between whiteness and self-inflicted suicide and understate the relationship of officer-involved homicide among Black shooters, because shooters who die by suicide prior to police arrival remove the opportunity for an officer-involved interaction. As a result, this analysis may not fully capture the complexity of factors that are present in mass shootings and subsequently affect mass shooter outcomes. Future research should take this into consideration when examining mass shooter outcomes.

## **CONCLUSION**

In this paper, I use an underutilized mass shootings dataset to address a question that has not previously been answered by academic scholarship: *How do mass shooter outcomes differ by the shooter's race?* I find that the odds of death by suicide—specifically, self-inflicted suicide—than survive are higher for white than Black mass shooters. In contrast, Black mass shooters do not have higher odds of dying by homicide than white mass shooters. Cop-assisted suicide, which could be conceptualized as either a form of suicide or a form of office-involved homicide, revealed no distinctively racialized patterns among



mass shooters. These analyses provide novel insight into the racialized masculinity of mass shooters and the relationship between mass shooters' race and their shooting outcomes.

My analysis provides a starting point for future research to investigate the nuances of suicide as a complex cause of death with different circumstances rather than a homogeneous category. I add to the MSA dataset by contributing a new variable, suicide by cop, allowing for a more detailed analysis of shooters' cause of death. Although mass shooting outcomes are often classified as either suicide or homicide, homicide may not be the best way to characterize officer-involved deaths if most mass shooters attempt to provoke law enforcement to kill them. Still, the direct role of law enforcement in a mass shooter's death is unique to cop-assisted suicides and there may be undiscovered connections between cop-assisted suicide and homicide.

Future research should consider mixed-method approaches as the rarity of mass shootings and even rarer situations of mass shooters dying by cop-assisted suicide or homicide might be better suited to qualitative analysis. Although I did not find evidence for racial differences among officer-involved deaths of mass shooters, Lankford (2015:371) suggests that "officer discretion is an inevitable part of policing," and additional research on this topic is warranted. While the sample size of "true" homicide cases—that is, homicide with no obvious intention on the part of the victim to die—was too small to be analyzed quantitatively (n=5), in the two incidents of true homicide where Black men were killed, they were fleeing from police and shot from behind or were on the ground when they died (Seattle Times Staff 2009; Sullivan and Martin 2010; Clarridge and Broom 2013).<sup>17</sup>

Although these are the circumstances only for two shootings, they do align with what we

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<sup>17</sup> See Appendix A for a table listing these five cases.

know about police killings of Black and Brown men more generally. While most existing literature on race and mass shootings focuses on whiteness (Kellner 2008; Madfis 2014; Bridges and Tober 2019), not all mass shooters are white, and a better understanding of the behavioral patterns, motivations, and circumstances surrounding mass shooters of color may provide additional perspectives on the perpetration of these devastating events and could possibly help prevent future tragedies.

My findings demonstrate the importance of including race in analyses of mass shootings, while indicating that further research should be done to better understand police response in these crisis situations, how law enforcement behaviors affect mass shooting events, and the role of suicide in mass shooting motivations. As such, reducing the frequency and lethality of mass shootings may require increased attention toward both the lives and deaths of mass shooters.

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**APPENDIX A**

**Table A1. Description of “True” Homicide Cases**

Title	Year	Location	Perpetrator’s Age, Race, and Gender	Why was this shooting coded as homicide?
McDonald’s restaurant shooting	1984	San Ysidro, CA	41 y.o. white man	The perpetrator was killed at a distance by a police sniper in the midst of his shooting. The shooter did not cease fire or surrender prior to being killed, but was also not aware of police presence prior to dying and, therefore, was not intentionally provoking law enforcement.
Damageplan show shooting at the Alrosa Villa Nightclub	2004	Columbus, OH	25 y.o. white man	The perpetrator was shot immediately upon entry by the police; he did not have the chance to cease fire or surrender.
Parkland Coffee Shop shooting	2009	Lakewood, WA	37 y.o. Black man	The perpetrator ceased threatening behavior and was actively fleeing when he was shot and killed by police.
Pinewood Village Apartments shooting	2013	Federal Way, WA	27 y.o. Black man	The perpetrator ceased threatening behavior and was actively fleeing when he was shot and killed by police.
Hilltop neighborhood shooting	2015	Columbus, OH	50 y.o. white man	The perpetrator ceased threatening behavior and was actively fleeing when he was shot and killed by police.

## APPENDIX B

**Table B1. Descriptive Statistics for Variables Included in the Analyses, Overall and by Race (White Shooters/Shooters of Color)**

<i>Variable</i>	<i>Mean (SD)</i>	<i>White Shooters</i>	<i>Shooters of Color</i>	<i>t-test sig.</i>
		<i>Mean (SD)</i>	<i>Mean (SD)</i>	
<b>Dependent Variables</b>				
Shooter Deceased? †	0.467 (—)	0.538 (—)	0.397 (—)	*
Shooter Died by Self-Inflicted Suicide? †, §	0.337 (—)	0.408 (—)	0.267 (—)	*
Shooter Died by Homicide? †, §	0.126 (—)	0.131 (—)	0.122 (—)	
Shooter Died by Cop-Assisted Suicide? †, §	0.107 (—)	0.108 (—)	0.107 (—)	
<b>Independent Variables</b>				
White Shooter? †	0.498 (—)	1.000 (—)	0.000 (—)	
Year of Shooting	2006.448 (11.452)	2004.008 (12.622)	2008.870 (9.609)	***
School Shooting? †	0.268 (—)	0.300 (—)	0.237 (—)	
Shooter's Age, in years	31.485 (12.485)	32.031 (13.618)	30.944 (11.276)	
Total Number of Fatalities	3.996 (4.933)	4.477 (4.223)	3.519 (5.524)	
<b>Observations</b>	261	130	131	

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

† 0 = no, 1 = yes

§ as a percentage of the sample

**Source:** Stanford Geospatial Center. 2016. "Stanford\_MSA\_Database." *Stanford Mass Shootings of America Project*. Stanford, CA: Stanford University Libraries. Retrieved March 9, 2021 (<https://library.stanford.edu/projects/mass-shootings-america>).

**Table B2. Multinomial Logistic Regression Models Predicting Mass Shooter Death, 1966-2016 (White Shooters/Shooters of Color)**

Variable	Model 1		Model 2	
	Suicide §	Homicide §	Suicide §	Homicide §
White Shooter? †	<b>0.828**</b> ( <b>0.301</b> )	0.368 (0.408)	<b>0.687*</b> ( <b>0.313</b> )	0.240 (0.415)
Year of Shooting	0.024 (0.015)	-0.013 (0.019)	<b>0.041*</b> ( <b>0.017</b> )	0.006 (0.020)
School Shooting? †	0.001 (0.399)	0.001 (0.399)	0.183 (0.424)	-0.588 (0.609)
Shooter's Age, in years	<b>0.058***</b> ( <b>0.014</b> )	<b>0.058***</b> ( <b>0.014</b> )	<b>0.053***</b> ( <b>0.014</b> )	<b>0.036*</b> ( <b>0.018</b> )
Total Number of Fatalities	—	—	<b>0.206***</b> ( <b>0.053</b> )	<b>0.206***</b> ( <b>0.057</b> )
Constant	<b>-0.904***</b> ( <b>0.242</b> )	<b>-0.904***</b> ( <b>0.242</b> )	<b>-1.663***</b> ( <b>0.317</b> )	<b>-2.194***</b> ( <b>0.383</b> )
Log Likelihood ratio test	<b>-230.316***</b>	<b>-230.316***</b>	<b>-218.079***</b>	<b>-218.079***</b>

+ p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

† 0 = no, 1 = yes

§ Shooters who lived are the omitted category

N (shootings) = 261

**Source:** Stanford Geospatial Center. 2016. "Stanford\_MSA\_Database." *Stanford Mass Shootings of America Project*. Stanford, CA: Stanford University Libraries. Retrieved March 9, 2021 (<https://library.stanford.edu/projects/mass-shootings-america>).

**Table B3. Multinomial Logistic Regression Models Predicting Mass Shooter Death, 1966-2016 (White Shooters/Shooters of Color)**

Variable	Model 1		Model 2	
	Self-Inflicted §	Cop-Assisted §	Self-Inflicted §	Cop-Assisted §
White Shooter? †	<b>0.830**</b> (0.301)	0.312 (0.433)	<b>0.693*</b> (0.313)	0.194 (0.439)
Year of Shooting	0.024 (0.015)	-0.011 (0.020)	<b>0.039*</b> (0.017)	0.007 (0.021)
School Shooting? †	-0.002 (0.400)	-0.625 (0.616)	0.163 (0.424)	-0.384 (0.620)
Shooter's Age, in years	<b>0.058***</b> (0.013)	<b>0.041*</b> (0.019)	<b>0.053***</b> (0.014)	<b>0.036+</b> (0.019)
Total Number of Fatalities	—	—	<b>0.205***</b> (0.053)	<b>0.201***</b> (0.058)
Constant	<b>-0.905***</b> (0.242)	<b>-1.581***</b> (0.319)	<b>-1.657***</b> (0.318)	<b>-2.335***</b> (0.402)
Log Likelihood ratio test	<b>-220.722***</b>	<b>-220.722***</b>	<b>-208.938***</b>	<b>-208.938***</b>

+ p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

† 0 = no, 1 = yes

§ Shooters who lived are the omitted category

N (shootings) = 256

**Source:** Stanford Geospatial Center. 2016. "Stanford\_MSA\_Database." *Stanford Mass Shootings of America Project*. Stanford, CA: Stanford University Libraries. Retrieved March 9, 2021 (<https://library.stanford.edu/projects/mass-shootings-america>).