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DISPARITIES IN FIREARM DEATH RATES BETWEEN BLACKS AND WHITES IN THE UNITED STATES: A REVIEW OF THREE EXPLANATIONS

Peter GREGORY¹

ABSTRACT:

FIREARM DEATH RATES IN THE UNITED STATES VARY SUBSTANTIALLY AMONG THE COUNTRY'S BLACK AND WHITE POPULATIONS. THE FIREARM HOMICIDE RATE AMONG BLACKS IS SIGNIFICANTLY HIGHER THAN AMONG WHITES, AND THE FIREARM SUICIDE RATE AMONG WHITES IS SIGNIFICANTLY HIGHER THAN AMONG BLACKS. THIS REVIEW EXAMINES THREE OF THE MOST PROMINENT EXPLANATIONS FOR THESE DIFFERENCES—RACISM, CULTURAL DIFFERENCES, AND ECONOMIC DISPARITIES. ALTHOUGH THE THREE EXPLANATIONS ARE INTERRELATED AND EACH SEEM TO OFFER SOME DEGREE OF EXPLANATORY POWER, THE EVIDENCE SUGGESTS THAT ECONOMIC DISPARITIES APPEAR TO OFFER THE BEST EXPLANATION FOR DISPARATE GUN DEATH RATES AMONG BLACK AND WHITE POPULATIONS.

KEY WORDS: GUN VIOLENCE, RACE, DISPARITIES, HOMICIDE, SUICIDE

INTRODUCTION

Gun violence in the United States (US) is pervasive. In 2018, nearly 40,000 individuals in the US died as the result of a firearm being discharged, a number that represents a national firearm death rate that is roughly 11.4 times higher than the firearm death rate found in other high-income countries [1]. Firearm-related deaths in the US, however, are not distributed evenly across the various racial groups that reside within the country. According to the United States Centers for Disease Control (CDC) [2], nearly 60% of firearm homicides that occurred in the US during 2018 occurred among Black and African American individuals (a group that makes up approximately 15% of the country's population). On the other hand, 91% of firearm suicides in the same year occurred among White individuals (a group that makes up about 77% of the country's population).

The disparities in firearm death rates that exist between populations in the US are not new and are well documented, especially in the case of firearm homicides [3, 4, 5, 6]. Disparities in firearm deaths between races remain, however, poorly understood. More broadly, the question of how race relates with and contributes to gun violence rates in the US is a question which gun violence scholars, for all their various contributions, have still made

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relatively little progress in answering. It is beyond the scope of this review to provide such an answer. Rather, this review aims to provide gun violence scholars with a survey of the various bodies of literature that have sought to isolate and identify the importance race plays when explaining US gun violence. In providing this survey, the review will be divided into three interrelated sections—one for each of the core bodies of literature that seek to explain the relationship between gun violence and race. These sections will discuss explanations of (1) bias and racism, (2) cultural differences between races, and (3) economic disparities between races. Afterwards, the review will conclude with a summative discussion of key takeaways for gun violence scholars and considerations for policymakers hoping to reduce gun violence and gun violence disparities.

GUN VIOLENCE AND RACISM

The most prominent body of literature that has examined links between race and gun violence in the US is, without question, the literature that has been developed on officer bias in police shootings. For decades, scholars have attempted to determine whether a pattern of non-random racial prejudice can be identified when examining the characteristics of shootings that result in a homicide by a member of law enforcement, often drawing different conclusions based on the sample of police shootings used to conduct their analyses [7, 8, 9, 10, 11, 12, 13, 14, 15, 16]. One recent analysis that utilizes an independently maintained database of police shootings in the US suggests that the risk of death by a police-perpetrated homicide in the United States is approximately 3 to 4 times larger for black individuals than it is for white individuals, and that police are responsible for about 8% of all homicides in the US that involve adult male victims [17]. The authors of this analysis note that this estimate is significantly higher than estimates derived from official records maintained by law enforcement agencies [17], a finding that provides a potential explanation for why different analyses of police shootings have tended to yield different results.

Another, more simple explanation for variance in the conclusions of studies that examine police shootings is the wide array of baselines scholars have used to determine the presence or absence of officer bias. As Tregle et al. [18] note, scholars commonly use at least five different baselines when making their calculations: (1) the percentage of the US population that is comprised of black and white individuals, (2) the frequency with which black and white individuals have interactions with police officers, (3) the total number of times black and white individuals are arrested each year, (4) the rate at which black and white individuals are arrested for the commission of violent crimes, and (5) the rate at which black and white individuals are arrested for an offense involving a weapon. Even when using the same data, utilizing these different baselines yields differing results (p. 8). The authors argue, however, that total arrests and police-citizen interactions represent the most valid baselines for analysis, and note that these baselines resulted in evidence of racial bias against black individuals in their analysis of fatal police shootings [18].

In addition to literature that directly examines the role race plays in police shootings, there is a second body of literature that examines race and gun violence through the lens of public sentiment and media coverage. Though this literature does not seek to determine the causes, per se, of racial disparities in gun violence victimization rates, it does attempt to determine the extent to which shootings by members of different races and shootings that claim the lives of members of different races are treated similarly or dissimilarly. Generally speaking, the conclusions drawn by scholars in this arena have been far more consistent than those drawn by scholars studying police shootings; that is, studies on media representations of white and non-white shooters and victims tend to find that white shooters and white

victims tend to be cast more sympathetically than their non-white counterparts. In one study, for example, the authors systematically compare media coverage from the aftermath of two widely publicized mass shootings—the Columbine shooting of 1999 and the Virginia Tech shooting of 2007—and find that mention of the shooters’ race was almost entirely absent from the coverage of Columbine but mentioned frequently in the case of Virginia Tech [19]. From this, the authors conclude that the media seemed to frame the Virginia Tech shooter’s Asian race as a salient factor in describing his crimes but did not frame race as at all salient in describing the crimes of the two white Columbine shooters [19]. Importantly lacking from the authors’ analysis in this instance, however, is any mention of the fact that the Virginia Tech shooter was an international student, a fact that would be relevant in describing the circumstances under which he was able to obtain and use firearms in the US, and which would likely be associated with references to his home country of South Korea and Asian heritage.

In other studies on media depictions of violence, the disparate treatment of white and black shooters and shooting victims is brought into sharper, less debatable focus. Rather than focusing on one or two events, most studies on race and media tend to draw on significantly larger samples of shooting incidents, thereby increasing the generalizability of any significant findings. In a study on media coverage of firearm homicides that occurred in Houston, Texas, for instance, the author found that black homicide victims were significantly less likely to receive newspaper coverage than white victims, and that when they did receive coverage their coverage tended to be less positive than that of their white counterparts [20]. A separate study that used a combination of local, state, and national news articles in its analysis found that white and Latino mass shooters were respectively 19 and 12 times more likely than black mass shooters to have their crimes framed as the result of mental illness [21]. In concordance with this finding, Frisby [22] finds that national news stories about “lone wolf” mass shooters use language that justifies shootings in some way roughly 75% of the time for shootings with white shooters and 25% of the time for shootings with non-white shooters. Analysis of social media responses to mass shootings, moreover, suggests that shootings with black victims generate less sympathy and policy-related discourse than shootings with white victims [23]. Ultimately, the literature on media representations of race and gun violence appears to be unanimous in its conclusions. Whether based on mentions of race, the framing of shooters and victims from different racial groups, or the placement of stories in print media, scholars appear to universally produce conclusions indicating that race is an important factor in the way these shooters and shooting victims are represented.

Lastly, there is an important, though still developing literature in which scholars have begun to examine support for and against various gun laws based on individual and public levels of racial bias. O’Brien et al. [24], for example, found that symbolic racism among whites as measured through self-report data collected by the American National Election Study (ANES) was positively associated with gun ownership and support for permits to carry concealed handguns. A separate study using both ANES data and a priming experiment involving pictures of black and white individuals found that symbolic racism was associated with a large and significant relationship with opposition to gun control among whites [25]. Importantly, neither of these two studies addresses, or even seeks to address causality. As such, neither study should be taken as evidence that racism “causes” increased opposition to gun control. That said, both studies suggest that racial bias is common among gun owners and that racism may play a role in the development of firearm policy. This is precisely the finding of Malone and Steidley [26], who attempt to determine what factors predict interstate variation in the adoption of concealed carry laws. Among other things, the authors find that,

when interacted with crime rates, racial threat—measured as the proportion of racial minorities in an area—is highly predictive of (1) the adoption of concealed carry laws, (2) the laxity of such laws, and (3) the rate at which concealed carry permits are applied for.

Together, the literature on police shootings, media depictions of race in relation to shootings, and the effects of racial attitudes in support for gun control offer persuasive evidence that race and racial bias play an important role in establishing how members of different races experience gun violence. Even so, data collected by the FBI [27] cast doubt on the conclusion that interpersonal racism or “racial resentment” is the main driver between black and white gun homicide fatality rates. Indeed, these data suggest that roughly 89% of black murder victims in the US are killed by black offenders, and that 81% of white murder victims are killed by white offenders. For both groups, then, it appears that murder victims are overwhelmingly killed by members of their own race, an observation that leaves unresolved the question of why such a high proportion of black individuals are killed in firearm homicides relative to white ones.

GUN VIOLENCE AND CULTURAL DIFFERENCES BETWEEN RACES

Theoretically, the “cultural differences” explanation for gun violence disparities between races is straightforward. Essentially, the explanation posits that different, meaningfully distinct cultures can be attributed to different racial groups and that these different cultures foster divergent levels of social solidarity along with divergent attitudes towards guns and violence. It is supposed that these differences naturally lead to members of some races disproportionately participating in violent practices compared to members of other races, thereby causing the observed differences in firearm homicide and suicide rates among different racial groups. Importantly, however, while a great deal of scholarship on race and violence incorporates some analysis of culture, culture is rarely defined explicitly by scholars, is often used interchangeably with the term race, and is frequently treated as a catch-all explanation for variation in outcomes not explained by structural factors [28]. In effect, the term culture tends to be defined rather vaguely among scholars as “a group’s norms and values, as its attitudes toward work and family, or as its observed patterns of behavior [28].” This lack of precision and rigor in defining culture is, perhaps, the greatest failing of scholarship on connections between race, culture, and gun violence. It should be kept in mind as said scholarship is reviewed.

In examining the effects of “cultural” differences between racial groups on gun violence, perhaps the most studied differences have been family structures, family relationships, and family behaviors. [29], for example, find that familial bonds are a significant predictor of the likelihood of youth from some racial groups participating in violence with either a gun or a knife but that this relationship is not significant for youth from all racial groups. Similarly, survey data suggest that exposure to family violence among black and white youth is associated with increased dating violence among black youth but not white youth [30], and that familial violence is more likely to occur in black households than in white ones [31, 32, 33, 34]. In particular, intimate partner homicide victimization rates appear to be higher among black individuals than they are among white ones, and victimizations among black females are, according to data compiled through police reports, also the most likely to involve a gun [35]. Importantly, some studies that pair administrative data with simple regression models have indicated that discrepancies in the rate at which familial violence occurs between racial groups disappear or become weaker when controlling for additional variables such as poverty [36, 37].

In addition to being exposed to disproportionate levels of violence and abuse within families, black adolescents are also disproportionately likely to live in single-parent, mother-led households compared to white youth, a fact that is associated with a disproportionate rate of involvement in violent crime among black youth compared to their peers [38, 39, 40, 41]. There are at least two explanations for these differences. First, marriage rates have been consistently much lower and birth rates outside of marriage have been consistently much higher among black women as compared to white women for several decades [42, 43, 44, 45]. Second, and perhaps relatedly, the proportion of black youth in the US whose fathers are incarcerated far exceeds that of white youth. Importantly, however, paternal incarceration, has been repeatedly associated with higher rates of delinquency and violence among youth of all races, and the effects do not appear to vary significantly between racial groups [46, 47]. This suggests that racial differences in violence related to parental incarceration are less the result of culture than a function of an incarceration rate among black men that far exceeds their share of the US population. Indeed, black individuals make up approximately 15% of the US population but nearly half of its prison population [48]. This disparity may, itself, represent the result of some other culture-related explanation of violence disparities between racial groups, but the existing evidence suggests that, all else being equal, differences in family characteristics between races play only a limited direct role in explaining the vastly different firearm homicide mortality rates experienced by white and black populations.

Turning briefly to a discussion of suicide, an interesting pattern emerges when examining suicide rates and beliefs about suicide among different racial groups. According to a survey of white and black participants, black individuals were more likely to have made a suicide attempt at some point during their lives and to have higher levels of suicidal ideation, but were less likely than whites to die as a result of a suicide attempt and, based on a combination of reasons that were measurably distinct from those offered by their white counterparts, were simultaneously the most likely to describe suicide as a morally unacceptable action [49]. This is largely in line with previous research [50, 51], and suggests at least two things. On the one hand, when paired with data on the lethality of firearms compared to other means used in attempted suicides [52, 53] and data showing that white individuals are significantly more likely to own firearms than black people [54], the fact that black respondents were the most likely to have made a suicide attempt suggests that the key reason firearm suicide rates are significantly lower than white firearm suicide rates is simply that firearms are less prevalent among black individuals. At the same time, however, the fact that black respondents across several studies describe a distinct set of beliefs as shaping their views about the acceptability of suicide suggests that attitudinal differences toward suicide do exist between racial groups, and that these attitudes may also play some role in contributing to racial disparities in firearm suicides.

Another area where attitudinal differences associated with violence may exist between racial groups is in the degree to which members of different racial groups tend to be more or less trusting of law enforcement and the justice system. Even when controlling for economic factors, neighborhood characteristics, and social capital, for example, surveys suggest that black individuals are more likely to have less positive perceptions of police and be less trusting of them than white individuals [55, 56, 57, 58]. One survey of black and white individuals stopped by police in North Carolina for traffic violations indicates that black individuals were more likely to describe police officers as being disrespectful during these encounters but also notes that much of this relationship seems to be explained by the degree to which individuals express long-standing trust in social institutions and report individual exposure to negative stories about police from friends and family [59]. Taken together, Kirk

and Papachristos [60] define this tendency among black individuals to be less trusting of and have less positive relationships with law enforcement as legal cynicism, a cultural frame the authors argue is directly linked to levels of violence in communities due to the fact that high levels of legal cynicism “may propel some individuals toward violence simply because they feel they cannot rely upon the police to help them resolve grievances [60].” Using two waves of survey and administrative data from Chicago, the authors examine the relationship between legal cynicism and neighborhood homicide rates. The authors conclude that, even when controlling for economic disadvantage and neighborhood characteristics (which the authors note also seem to matter), (1) legal cynicism is positively related to homicide rates, and (2) that black individuals are more likely to express high levels of legal cynicism relative whites. Accordingly, this body of scholarship suggests that cultural differences that contribute to violence do exist between races, and subsequent research has also found that legal cynicism is positively associated with the acquisition of firearms [61]; that is, as legal cynicism increases in an area, gun acquisition and homicide rates in that area tend to increase simultaneously.

GUN VIOLENCE AND ECONOMIC DISPARITIES BETWEEN RACES

The third explanation scholars tend to advance when discussing disparate firearm mortality rates among different races has, at this point, been alluded to several times. Of the three explanations discussed in this review, the explanation that economic disparities between races lead to dissimilar firearm mortality rates between them is perhaps the most widely accepted. Hsieh and Pugh [62] developed one of the first pieces of scholarship to facilitate this broad consensus among scholars. Noting a wide body of inconclusive work on the relationship between economic disadvantage and violent crime, the authors conducted a meta-analysis of 34 studies that examine the relationship between various violent crime rates and measures of both poverty and income inequality. The authors found that 97% of the regression coefficients produced in these studies suggested a positive relationship between rates of poverty and inequality and rates of violent crime, and that approximately 80% of these coefficients were of at least moderate size [62]. The authors, moreover, find that economic disadvantage is more strongly associated with homicide and assault rates than with rates of robbery and rape [62]. Subsequent literature has generally confirmed the existence of a strong positive relationship between violent crime and both poverty [63, 64, 65, 66, 67] and income inequality [63, 68, 69, 70, 71, 72]. Both these variables, moreover, have been specifically tied to higher rates of firearm-related homicide and violent crime [73, 74, 75, 76].

In the context of scholarship finding strong, positive relationships between economic disadvantage and firearm-related homicides and crime rates, the fact that the poverty rate among the black populations in the US is significantly higher than the poverty rate of the US white population logically suggests that violent crime rates would be higher among blacks as well. In 2018, approximately 13.4% of white children in the US lived below the federal poverty line, compared to 29.5% of black children [77]. Data collected by Pew Research Center [78] indicate a similar pattern exists when comparing the median net worth of households among the two groups, with the median net worth of white households being approximately 18 and 20 times larger than those of black households. Importantly, however, while measures like poverty and income inequality do seem to play an important role in black-white disparities in rates of violent crime, they do not, *ceteris paribus*, seem to affect racial groups differently; that is, when poverty rates and income inequality are accounted for, white and black populations appear to be equally likely to participate in violent crime [79, 80, 81].

Inequality and poverty rates have also been linked to suicide [82, 83], though these relationships seem to be more complex and tenuous than those found between inequality, poverty and homicide rates, especially when racial differences are accounted for. As noted previously, for example, national measures of poverty and inequality would suggest that members of black populations in the US are, generally speaking, significantly less wealthy than white individuals, and yet suicide rates remain higher for whites. Scholarship on this disparity suggests at least two explanations contingent on the distribution and concentration of white and non-white populations across geographic areas. US Census data have long indicated that rural populations are more white than suburban and urban populations. Frey [84] notes that rural America has largely maintained its majority-white racial composition over the last several years, and that its population has also gotten older compared to urban and suburban areas which have become increasingly more racially diverse. Data also suggest that suicide rates are higher in rural areas than in urban ones [85]. Knowing this, the first explanation scholarship offers in explaining disparate suicide rates is that gun ownership is significantly more common among whites than non-whites, and is especially concentrated among whites in rural areas where white populations tend to be more dominant [54, 86]. Firearm ownership rates in rural areas, moreover, appear to have remained stable over the last several decades as ownership rates in urban areas have decreased [87], likely exacerbating white and non-white suicide disparities.

The second explanation for disparate suicide rates among white and non-white populations has less to do with the instrumentality of firearms and their concentration among white owners. Still, it suggests that the relative lack of racial diversity and lower population density of rural areas are important. Wadsworth and Kubrin [88], for example, argue that the relationship between poverty and suicide may be moderated to some degree by population density, particularly among poor racial minorities in large cities who often live in highly segregated neighborhoods. These factors—segregation and population density—may, they say, facilitate stronger social bonds among racial minorities that make the challenges of poverty more manageable and less emotionally challenging [88].

A third explanation related to wealth and racial disparities in firearm suicide can also be found in theories of status anxiety. Steidley and Kosla [89] describe status anxiety as a consequence of perceived status threat which results naturally from changes in a population's "political, economic, demographic, or cultural characteristics [89]." They also note that status anxiety—measured simply as the percentage of a state's population that is non-white—is a significant predictor of firearm demand among republicans [89]. In a separate analysis, Houle and Light [90] found that economic social anxiety among whites appeared to be a significant predictor of race-specific suicide disparities during the Great Recession. The connections between status anxiety and differential firearm suicide rates between races, however, remains largely unstudied. Even so, As the portion of the US population comprised of white individuals continues to decline [91], it is possible that that this anxiety may play a substantial role in producing wider suicide-related disparities across white and non-white populations.

CONCLUSION

Explanations of disparities in firearm mortality rates between races based on racism, culture, and economic disparities are varied, complex, and interrelated. No one of these explanations can be honestly discussed without some reference to the others. That said, some important points stand out at the end of this review. First, regardless of the explanation being forwarded, the distribution and availability of firearms among different races plays a

substantial role in predicting firearm-related homicide and suicide rates. Where there are more guns, there are also more gun deaths. On this point, it is interesting to note that while legal cynicism is associated with higher rates of gun ownership, and while black individuals seem, on average, to exhibit higher rates of legal cynicism than whites, white individuals appear to be more likely to own a gun—at least according to survey evidence and administrative data. One possible reason for these apparently contradictory findings is that, as a result of being more cynical of police and legal institutions, black individuals may simply be less likely than whites to report actually owning a gun even if ownership rates are, in reality, comparable. The decision to not disclose gun ownership may be especially likely among young black men, who are more likely than young white men to be involved in violent gang activity, and who may feel motivated to lie about gun ownership when asked due to a fear of legal repercussions. In contrast, a second explanation for black individuals reporting lower rates may simply be that, as guns are relatively expensive, and as black individuals are, on average, more likely to be poor than whites, that poverty disproportionately prevents black would-be gun owners from obtaining firearms. To the best of my knowledge, neither of these explanations has been the subject of any recent scholarship. Scholars seeking to explain racial disparities in gun deaths should attempt to determine the extent to which either is true.

Second, when explaining racial disparities in gun deaths, interpersonal racism seems to matter, but only to a limited degree. Racism seems to play a role in the disparate use of violence by police against non-white individuals, for example, when race-specific police interactions and arrests are used as baselines for scholars' calculations—even when controlling for poverty and crime rates among different populations. Symbolic racism also seems to partially explain attitudes toward guns, support for various gun laws, and the public discourse around gun violence. None of these relationships, however, is indicative of a direct relationship between self-reported racial attitudes and actual gun violence outcomes, and as such the degree to which racism can explain current disparities is, again, limited. Ultimately, however, interpersonal racism is limited as a more general explanation for racial disparities in gun-related homicides simply because it appears that most homicides with black victims have black perpetrators, and most homicides with white victims have white perpetrators. Even so, it appears that white individuals may be marginally more likely to be victimized by a member of another racial group than black individuals. Scholars should seek to determine the degree to which this is the case.

Third, while economic disparities appear, generally speaking, to be more predictive of firearm-homicide rate disparities, cultural attitudes appear to be more predictive of firearm-suicide rate disparities. This last point comes with a very large caveat in that what culture is and how it can be validly measured remain ill-defined by scholars seeking to empirically study race and violence using statistical methods. Accordingly, any conclusions drawn regarding a relationship between “culture” and gun violence should be treated with caution. Scholars should use caution, first, in assessing the validity of the results of other scholars' work; second, in comparing the work of multiple scholars; and, third, in producing their own scholarship. For the purposes of any statistical analysis involving culture, great care and effort will be required to operationalize culture in a way that is valid and meaningful for the study of gun violence.

Lastly, while the scholarship on race and violence often interacts variables of race with cultural variables or some measure of economic disadvantage, scholarship that makes use of statistical analysis has mostly ignored the possibility of interactive and compounding effects between cultural variables and economic ones, and the impact that these combined variables may have on violence. Future scholarship interested in explaining racial disparities

in gun-related homicide and suicide rates must account for a wide array of possible explanations, including explanations that account for the combined effects of poverty and culture.

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