

Differences by Victim Race and Ethnicity in Race and Ethnicity Motivated Violent Bias Crimes:
A National Study

Robert A. Tessler

A thesis

submitted in partial fulfillment of the
requirements for the degree of

Master of Public Health

University of Washington

2018

Committee:

Ali Rowhani-Rahbar (Chair)

Frederick P. Rivara

Monica S. Vavilala

Program Authorized to Offer Degree:

School of Public Health, Department of Epidemiology

© Copyright 2018

Robert A. Tessler

University of Washington

Abstract

Differences by Victim Race and Ethnicity in Race and Ethnicity Motivated Violent Bias Crimes:

A National Study

Robert A. Tessler

Chair of the Supervisory Committee:

Ali Rowhani-Rahbar

Department of Epidemiology

Background. Over 80% of bias motivated violent victimization is motivated by race or ethnicity and over 50% of bias victimization occurs in Non-Hispanic Whites (NHW). Our aim was to determine the risk and health impacts of race/ethnicity motivated violent victimization by victim race/ethnicity.

Methods. We examined data from the National Crime Victimization Survey (2003-2015) to estimate violent victimization risk by victim race/ethnicity and type of bias motivation (race/ethnicity or other). We examined incident and offender characteristics for race/ethnicity motivated victimization by victim race/ethnicity.

Results. The risk of race/ethnicity motivated violent victimization was greater for Non-Hispanic Blacks (NHB) and Hispanics than for NHWs (IRR=1.4; 95% CI: 1.0-2.0, and IRR=1.6; 95% CI: 1.2-2.1). Violent incidents for NHB victims more frequently resulted in injury or medical care. Nearly 40% of NHB victims reported difficulties at school or work related to the incident where only 21.5% of NHWs and 11.7% of Hispanic victims reported similar problems. Roughly 37% of NHB victims identified a NHW offender and 45% of NHW victims identified a NHB offender. Hispanic victims identified NHB or NHW offenders in over 70% of incidents.

Conclusions. Although literature suggests that NHWs account for the majority of bias victimizations, the risk of non-fatal violent victimization motivated by race/ethnicity is greater for Non-Hispanic Blacks and Hispanics. Crimes perpetrated against NHBs are likely more severe and victim/offender racial incongruity is common. Findings provide empiric evidence on race/ethnicity-related structural disadvantage with adverse health consequences.

INTRODUCTION

The United States Department of Justice prosecutes hate crimes defined as, "...acts of physical harm and specific criminal threats motivated by animus based on race, color, national origin, religion, gender, sexual orientation, gender identity, or disability."¹ Despite an overall trend towards decreasing violent victimizations between 2004 and 2015 in the United States, the rate of hate or bias motivated victimization has remained largely stagnant.^{2,3} In data from the National Crime Victimization Survey (NCVS) between 2011 and 2015, 80% of all bias crimes were race or ethnicity motivated and nearly 90% of all bias crimes involved violence.² Violent victimization and chronic community violence are known public health concerns related to physical injury, emotional trauma, and poor health outcomes that ripple throughout networks and communities.⁴⁻⁶

Bias motivated violent victimization may be more severe compared to victimizations of comparable non-bias motivated violent crimes.^{7,8} A review of hate crime victimizations from Boston area police records has demonstrated evidence of brutality, emotional injury, and psychological trauma associated with these crimes.⁷ Prior analyses suggest that the risk of injury may differ based on the specific bias motivation.⁷ Specifically, one reported has suggested that Anti-White violent crimes are associated with a higher risk of severe injury compared to non-bias violent crimes.⁷ Also, in NCVS data from 2011-2015 Non-Hispanic Whites accounted for over half of all bias violent victimizations.² This may be counter to commonly held perceptions on bias victimization. With regard to race and ethnicity motivated bias violent crimes, little is known about the risk of victimization across different racial and ethnic groups and if differences

exist in the severity or consequences of these crimes for different demographic (Non-Hispanic Black, Hispanic compared to Non-Hispanic White) populations.

We analyzed national data to characterize the risk of non-fatal race/ethnicity motivated violent crimes among Non-Hispanic Black and Hispanic individuals compared to Non-Hispanic Whites. Despite the previously mentioned report, given potential sample differences and methodologic limitations from prior work, we hypothesized that Non-Hispanic Black and Hispanic individuals are at greater risk for race/ethnicity motivated violent crime and that those crimes are more severe compared to Non-Hispanic Whites.

METHODS

Data Source

The Bureau of Justice Statistics' (BJS) NCVS collects annual data on personal and household victimization using a nationally representative sample of United States residential addresses. The survey was first administered in 1973 (named the National Crime Survey) and maintains four principle objectives: 1) collect thorough information on victims of crime and the consequences they suffer, 2) provide estimates of the numbers and types of crime, 3) establish uniform measures for selected crime types, and 4) compare victimization trends over time.⁹ In addition to collecting detailed information about the characteristics of sampled household members, all persons age 12 or older in sampled households are asked detailed, incident-level

questions about experiences with personal and property crimes both reported and not reported to police.⁹ BJS offers a concatenated file that includes the years 1992 to 2015 as a free download.¹⁰

Measures

The NCVS contains several variables on bias motivation. Prior reports published by the Department of Justice (DOJ) and BJS define hate or bias crime as an incident perceived by the victim as bias-motivated and confirmed by the presence of hate language or hate symbols, or the event was established separately by the police as a hate crime.² Categories for potential bias motivation are protected under the federal crime statutes.¹¹ The NCVS includes information on the specific perceived bias motivation such as race, ethnicity, gender, sexuality, religion, disability, an associated person (e.g. the characteristic of a friend, family member, or colleague), or a perceived characteristic of the victim whether or not they actually possess that feature. We define two distinct variables of perceived bias motivation: 1) race or ethnicity motivated, or 2) any other perceived bias motivation (i.e. all other possibilities). We included all perceived bias motivated crimes and did not exclude based on the absence of hate language, symbols, or police confirmation. Incidents not categorized in either bias victimization group comprised the group of non-bias victimizations. The NCVS alters the survey periodically; questions on specific bias motivation were introduced in 2003 and have remained consistent through the available data from 2015. For this analysis, we considered the years 2003 to 2015 only.

The exposure variable of victim race/ethnicity was created using two separate variables for race and ethnicity and coded to reflect three mutually exclusive groups: Non-Hispanic White (NHW),

Non-Hispanic Black (NHB), and Hispanic. American Indian/Alaska Native, Asian, Hawaiian/Pacific Islander, and all multi-racial combinations were not included due to limited power to detect differences in these groups. The NCVS provides victim education by number of years and specific degrees attained. In balancing granularity of data with practicality of use, we categorized educational attainment as elementary school only, high school (no graduation), high school graduation, some college, associated degree or bachelor's degree, or an advanced degree. We did not re-categorize marital status or region and the values reflect the raw NCVS responses for those questions.

We used standard DOJ definitions of violent crime, serious violent crime, and simple assault (Table 1).³ We included only violent victimizations (both serious violent crime and simple assault) and excluded property crime. Weapons are defined as firearms, knives, sharp objects, or blunt objects, or other. Firearm presence during the incident was a composite variable that included handguns, other guns, or unknown gun types. Injuries are coded separately in NCVS as sexual assault or attempted sexual assault injuries, knife or stab wounds, gunshot or bullet wounds, broken bones or teeth, internal injuries, knocked unconscious, bruises or cuts, or other. Medical care includes self-care, home-based care, and professional care from first-responders or hospital based medical providers. Incident characteristics including the number and race of offenders and the activity at the time of the incident are self-reported by victims. Victims also self-reported whether victimization led to subsequent life difficulties.

Statistical Analysis

We calculated survey weighted proportions of respondent characteristics based on the NCVS universe for the years 2003-2015 across the three race/ethnicity groups.¹² Average annual incidence rates were calculated for each victimization category and for each race/ethnicity group using frequency and survey weights as described in the NCVS User Guide for Direct Variance Estimation.¹² We calculated incidence rate ratios (IRR) for each victimization outcome using a survey weighted Poisson regression and a multi-level categorical variable for victim race/ethnicity as the exposure with NHW as the reference group. We estimated incidence rate differences (IRD) using the average marginal effect based on Poisson model results. We calculated estimates using three different statistical models. Model 1 included the race/ethnicity groups only (unadjusted). Given the differences in age distribution between the three race/ethnicity groups, we also calculated estimates after controlling for age (Model 2). Education, marital status, and region may occur on the causal pathway after race/ethnicity and before victimization potentially acting as mediators in the relationship.¹³ Controlling for these variables may attenuate any association between race/ethnicity and outcomes; however, these are often included in models to assess whether differences in such socioeconomic measures may account for any observed disparities by race/ethnicity.¹⁴⁻¹⁶ As such, we calculated estimates (Model 3) that included education, marital status, and region. We also calculated weighted proportions of incident characteristics among all race/ethnicity motivated violent bias crimes across the three race/ethnicity groups. Finally, we estimated yearly incidence rates for each crime type and each race/ethnicity group using two-year rolling averages and fit with natural cubic splines. Natural cubic splines were chosen to minimize the impact of any single yearly estimate given the limited number of observations for each year-group-victimization type combination and to avoid the assumption of linearity in the trends by year.¹⁷

RESULTS

For the years 2003 to 2015, the NCVS sample included 2,080,786 individuals age 12 years or older with a weighted distribution of 72.3% (95%CI 71.4 -73.3) NHW, 12.6% (95%CI 11.9 - 13.3) NHB, and 15.1% (95%CI 14.3-15.9) Hispanic origin. In this NCVS universe, a smaller proportion of NHB were male, married, and a greater proportion lived in the Southern United States compared to NHW. Non-Hispanic Black and Hispanic populations were younger and smaller proportions had advanced education compared to the population of NHW (Table 2).

The overall average annual rate of non-fatal violent victimization for all three race/ethnicity groups was 2525.3 per 100,000 (95%CI 2422.9-2627.6). Non-Hispanic Blacks had the highest average annual rate of non-fatal violent victimization in all three categories: 2768.8 per 100,000 for non-bias violent crime, 92.8 per 100,000 for perceived non-race and non-ethnicity bias motivated violent crime, and 143.8 per 100,000 for perceived race/ethnicity motivated bias violent crime (Table 3). The unadjusted rate of non-bias violent victimization was higher for NHB compared to NHW (IRR 1.2, 95%CI 1.1 -1.3); however, with adjustment for age as a continuous variable, this difference in rate did not persist. Hispanics had a lower risk of non-bias violent victimization compared to NHW in age-adjusted models (IRR 0.7, 95%CI 0.6-0.7).

The crude rate of race or ethnicity bias motivated violent victimization was higher for both NHB and Hispanics compared to NHW (IRR 1.4 95%CI 1.0-2.0, and IRR 1.6 95%CI 1.2-2.1). In age-

adjusted models, the estimate was attenuated for both NHB and Hispanics. The model that additionally accounted for education, marital status, and region provided similar estimates to the model adjusting only for age (Table 3). There were an estimated additional 46.7 (95%CI 1.4-92.1) and 60.3 (20.3-100.4) race/ethnicity motivated bias events per 100,000 person-years for NHB and Hispanics, respectively. There was no difference in rate of victimization between groups for non-race/ethnicity bias motivated violent victimization (Table 3). Figure 1 shows changes over time by victimization type and race/ethnicity of the victim.

Among race/ethnicity motivated violent victimization, weapon and firearm involvement did not differ between exposure categories (Table 4). Violent incidents more frequently resulted in injury or ended in some sort of medical care for NHB victims. Nearly 40% of NHB victims reported difficulties at school or work related to the incident where this was true in only 21.5% of NHW and 11.7% of Hispanic victims. Between 10% and 25% of victims across all three groups reported that the incident contributed to difficulties with friends or family, with the highest proportions for NHB and NHW victims, and less commonly for Hispanic victims (Table 4). The majority of incidents for all three groups involved a single offender. Single offenders were most commonly of a different race or ethnicity than the victim. For NHB victims, 37.2% identified a NHW offender, and for NHW victims 45.0% identified a NHB offender. Hispanics were more commonly victimized while in transit to work or school 29.1% (95%CI 16.0 -47.0) compared to NHB victims and NHW victims (14.5% and 14.4, respectively).

DISCUSSION

To our knowledge, this is the first detailed investigation of perceived race/ethnicity motivated violent victimization suggesting differences in risk based on victim race/ethnicity. After age-adjustment, we demonstrate a 30% higher risk of race/ethnicity bias motivated violent victimization for Non-Hispanic Blacks and Hispanics, compared to Non-Hispanic Whites. Despite NHWs accounting for the majority of bias violent crime according NCVS, the unadjusted risk for race/ethnicity motivated violent bias crime is 40% higher for NHBs and 60% higher for Hispanics. In models adjusting for age, marital status, education, and region the risk estimate for NHBs did not change from the model adjusting only for age, however, for Hispanics the elevated risk did not persist compared to NHWs. This may suggest that elevated risk of victimization for Hispanics may be weaved into downstream factors such as education, marital status, and region to a greater extent than for NHBs. In addition to the risk of race/ethnicity motivated bias victimization for NHBs and Hispanics, these data suggest a more frequent serious violent crime, including those entailing weapon and firearm involvement, more injuries, and higher proportions receiving medical care. These data also demonstrate that the downstream impact on work, school, and social life is substantial with the highest proportion of difficulties reported from NHBs.

Our results align with but build upon prior published statistics from BJS.^{2,3} Prior BJS reports have not included annual incidence rates for specific bias motivations. According to BJS, the average annual rate of violent bias crime victimization in the years 2004 through 2015 was 90 per 100,000.² We report for NHWs (over 70% of the sample) that the average annual rate of violent bias crime victimization was 97.1 per 100,000 for race/ethnicity motivated and 80.1 per 100,000 for other bias motivation (Table 2). Knowing the overall BJS rate is a weighted average

of rates by specific motivation (80% are race/ethnicity motivated), our results separated by motivation are congruent with the published overall annual rate of 90 per 100,000.

Pezzella and Fetzer analyzed the 2010 National Incident Based Reporting System (NIBRS) to evaluate the risk of severe injury among bias and non-bias violent crime.⁷ The authors compare specific biases (Anti-White, Anti-Black, Anti-Lesbian, etc.) to non-bias crimes and report the risk of serious injury. In their analysis, only Anti-White and Anti-Lesbian attacks resulted in higher odds of serious injury (OR 2.5 and 2.7, respectively) and Anti-Black attacks had lower odds of serious injury compared to non-bias crimes (OR 0.5). These findings contrast somewhat with our results where we found more injuries in race/ethnicity motivated bias crimes among NHBs than in NHWs and Hispanics. The discrepancy in findings is likely related to different data samples and different definitions used for bias crime. The NIBRS includes only bias crimes reported to the police while the NCVS includes unreported crimes. Additionally, the NIBRS is not a nationally representative sample and most major cities are not included.^{2,18}

The disaggregation of hate crimes into specific bias motivation has led to important public health discoveries. Prior analyses into anti-lesbian, gay, bisexual, and transgender (anti-LGBT) bias motivated victimization demonstrated concerning associations between exposure to bias motivated assault and risk of suicide and substance abuse.¹⁹⁻²¹ Further, the intersection of sexual orientation, race, and gender, among other identity defining characteristics may have important public health consequences when considering the effects of, and resilience from, bias victimization.^{21,22} Detailed and sophisticated analytic approaches are necessary to better

understand these relationships and the public health implications knowing that specific bias motivated victimizations may have variable risks and consequences in different scenarios and for different groups.

These data demonstrate that victims report a perpetrator from another race/ethnicity group in a majority of cases. Although this finding is expected given the nature of the topic, in the context of other results the implications may be broader. Specifically, although documented race/ethnicity bias victimization is relatively rare, hate crime is known to create personal and community instability, diminish inclusion and trust between groups, and can potentially exacerbate uneven power dynamics at a society level.⁷ Taking together the higher overall risk of victimization among NHBs and Hispanics, the greater burden of severity for NHBs, and the race/ethnicity profile of offenders suggests an environment of structural disadvantage of certain groups compared to others. For these reasons, taking a public health approach to understanding race/ethnicity motivated violent victimization is an appropriate step to capture how inequity is manifest in health outcomes amidst the complex interactions between social structures, individual risks, identity, and legal frameworks.

These data have limitations. The NCVS is a large, multiyear dataset and the data are subject to both sampling and non-sampling survey error.²³ Also, the information contained in the NCVS is entirely self-report. While this is an important feature when considering issues around potential underreporting of events to law enforcement, the information provided to this national survey is not verified by outside sources. Also, given the nature of the data collection mechanism, these

are exclusively non-fatal events. With the knowledge that bias crimes may in fact be more severe, limiting our outcome to non-fatal victimization would bias our results towards the null if at all. In consideration of the association between victim race/ethnicity and risk of race/ethnicity motivated violent victimization, to interpret the estimates in Model 3 as the direct effect of race/ethnicity several assumptions would have to be met, many of which are difficult to test in these data.¹³ Additional analyses to elaborate the complex interactions between race/ethnicity, socioeconomic status, and risk of race/ethnicity motivated violent victimization would ultimately be informative.

CONCLUSIONS

Although Non-Hispanic Whites account for the majority of bias victimizations, the risk of non-fatal violent victimization motivated by race/ethnicity is higher for Non-Hispanic Blacks and Hispanics compared to Non-Hispanic Whites. Also, the crimes perpetrated against Non-Hispanic Blacks are more severe in the immediate and post-victimization period. There is incongruity between victim and offender race/ethnicity in most cases, which, when considering the differential risk and severity of these crimes suggests an environment of structural disadvantage of certain groups compared to others. Programs seeking to attenuate racial or ethnic tensions are likely to create public health benefits, especially for communities of color.

REFERENCES

1. Hate Crimes, The United States Department of Justice. <https://www.justice.gov/crt/hate-crimes-0>. Accessed December 18, 2017.
2. Masucci M, Langton L. *Hate Crime Victimization, 2004-2015*. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics; 2017.
3. Truman JL, Morgan RE. *Criminal Victimization, 2015*. US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics; 2016.
4. Copeland WE, Keeler G, Angold A, Costello EJ. Traumatic events and posttraumatic stress in childhood. *Arch Gen Psychiatry*. 2007;64(5):577-584. doi:10.1001/archpsyc.64.5.577
5. Schilling EA, Aseltine RH, Gore S. Adverse childhood experiences and mental health in young adults: a longitudinal survey. *BMC Public Health*. 2007;7:30. doi:10.1186/1471-2458-7-30
6. Yimgang DP, Wang Y, Paik G, Hager ER, Black MM. Civil Unrest in the Context of Chronic Community Violence: Impact on Maternal Depressive Symptoms. *Am J Public Health*. 2017;107(9):1455-1462. doi:10.2105/AJPH.2017.303876
7. Pezzella FS, Fetzer MD. The Likelihood of Injury Among Bias Crimes: An Analysis of General and Specific Bias Types. *J Interpers Violence*. June 2015. doi:10.1177/0886260515586374
8. Fetzer MD, Pezzella FS. The Nature of Bias Crime Injuries: A Comparative Analysis of Physical and Psychological Victimization Effects. *J Interpers Violence*. October 2016. doi:10.1177/0886260516672940
9. *National Crime Victimization Survey, Concatenated File, 1992-2015*. United States Department of Justice, Office of Justice Programs. Bureau of Justice Statistics: Ann Arbor MI: Inter-university Consortium for Political and Social Research; 2016. <http://doi.org/10.3886/ICPSR36456.v1>.
10. National Crime Victimization Survey, Concatenated File, 1992-2015 (ICPSR 36456). <http://www.icpsr.umich.edu/icpsrweb/NACJD/studies/36456>.
11. Hate Crime Laws. The United States Department of Justice. <https://www.justice.gov/crt/hate-crime-laws>. Accessed January 29, 2018.
12. Shook B, Couzens GL, Berzofsky M. *User's Guide to National Crime Victimization Survey Direct Variance Estimation*. RTI International; 2014.
13. VanderWeele TJ, Robinson WR. On the Causal Interpretation of Race in Regressions Adjusting for Confounding and Mediating Variables: *Epidemiology*. 2014;25(4):473-484. doi:10.1097/EDE.000000000000105

14. Samuel CA, Landrum MB, McNeil BJ, Bozeman SR, Williams CD, Keating NL. Racial disparities in cancer care in the Veterans Affairs health care system and the role of site of care. *Am J Public Health*. 2014;104 Suppl 4:S562-571. doi:10.2105/AJPH.2014.302079
15. Siddiqi AA, Wang S, Quinn K, Nguyen QC, Christy AD. Racial Disparities in Access to Care Under Conditions of Universal Coverage. *Am J Prev Med*. 2016;50(2):220-225. doi:10.1016/j.amepre.2014.08.004
16. Rangrass G, Ghaferi AA, Dimick JB. Explaining racial disparities in outcomes after cardiac surgery: the role of hospital quality. *JAMA Surg*. 2014;149(3):223-227. doi:10.1001/jamasurg.2013.4041
17. Durrleman S, Simon R. Flexible regression models with cubic splines. *Stat Med*. 1989;8(5):551-561.
18. National Incident-Based Reporting System, Data Collection: Methodology. Bureau of Justice Statistics. <https://www.bjs.gov/index.cfm?ty=dcdetail&iid=301#Methodology>. Accessed January 29, 2018.
19. Duncan DT, Hatzenbuehler ML. Lesbian, gay, bisexual, and transgender hate crimes and suicidality among a population-based sample of sexual-minority adolescents in Boston. *Am J Public Health*. 2014;104(2):272-278. doi:10.2105/AJPH.2013.301424
20. Duncan DT, Hatzenbuehler ML, Johnson RM. Neighborhood-level LGBT hate crimes and current illicit drug use among sexual minority youth. *Drug Alcohol Depend*. 2014;135:65-70. doi:10.1016/j.drugalcdep.2013.11.001
21. Mereish EH, O’Cleirigh C, Bradford JB. Interrelationships between LGBT-based victimization, suicide, and substance use problems in a diverse sample of sexual and gender minorities. *Psychol Health Med*. 2014;19(1):1-13. doi:10.1080/13548506.2013.780129
22. Dunbar E. Race, gender, and sexual orientation in hate crime victimization: identity politics or identity risk? *Violence Vict*. 2006;21(3):323-337.
23. *National Crime Victimization Survey, Technical Documentation.*; 2014. <https://www.bjs.gov/content/pub/pdf/ncvstd13.pdf>.

TABLES

Table 1. Violent Crime, Serious Violent Crime, and Simple Assault

Violent Crimes
Completed rape
Attempted rape
Sexual attack with serious assault
Sexual attack with minor assault
Completed robbery with injury from serious assault
Completed robbery with injury from minor assault
07 Completed robbery without injury from minor assault
Attempted robbery with injury from serious assault
Attempted robbery with injury from minor assault
Attempted robbery without injury
Completed aggravated assault with injury
Attempted aggravated assault with weapon
Threatened assault with weapon
Simple assault completed with injury
Sexual assault without injury
Unwanted sexual contact without force
Assault without weapon without injury
Verbal threat of rape
Verbal threat of sexual assault
Verbal threat of assault

Serious Violent Crime = Pink
Simple Assault = Blue

Table 2. Characteristics for Non-Hispanic Blacks, Non-Hispanic Whites, and Hispanic Origin in NCVS (weighted proportions), 2003-2015

Variable	Non-Hispanic White (N=1,535,155)		Non-Hispanic Black (N=238,003)		Hispanic (N=307,628)	
	%	95% CI	%	95% CI	%	95% CI
Male	49.0	[48.9, 49.2]	45.5	[45.0, 45.9]	50.0	[49.6, 50.4]
Age, median (IQR)						
12 to 19	11.2	[11.0, 11.4]	16.5	[16.1, 17.0]	19.1	[18.7, 19.5]
20 to 29	14.5	[14.1, 14.8]	18.2	[17.8, 18.7]	23.2	[22.8, 23.7]
30 to 39	14.6	[14.4, 14.8]	16.9	[16.5, 17.2]	20.3	[19.9, 20.7]
40 to 49	17.1	[17.0, 17.3]	17.3	[16.9, 17.7]	16.5	[16.2, 16.8]
50 to 59	17.4	[17.1, 17.6]	14.9	[14.6, 15.3]	10.5	[10.3, 10.8]
60 to 69	12.6	[12.3, 12.8]	9.0	[8.7, 9.3]	5.9	[5.7, 6.2]
70+	12.8	[12.5, 13.1]	7.2	[6.8, 7.5]	4.4	[4.2, 4.6]
<i>Educational Attainment</i>						
Elementary School Only	6.9	[6.8, 7.1]	10.2	[9.9, 10.6]	23.5	[22.9, 24.2]
High School (No Graduation)	11.0	[10.7, 11.2]	18.6	[18.0, 19.2]	21.7	[21.3, 22.2]
High School (Graduation or equivalent)	27.4	[27.0, 27.9]	29.7	[29.1, 30.4]	25.0	[24.5, 25.6]
Some College, Associates, or Bachelor Degree	45.4	[44.9, 45.9]	36.9	[36.1, 37.7]	26.9	[26.3, 27.4]
Advanced Degree	9.3	[9.1, 9.5]	4.6	[4.4, 4.9]	2.9	[2.7, 3.1]
<i>Marital Status</i>						
Married	53.6	[53.3, 54.0]	31.0	[30.4, 31.6]	44.9	[44.4, 45.5]
Widowed	6.4	[6.2, 6.5]	5.8	[5.6, 6.1]	2.8	[2.6, 2.9]
Divorced	10.2	[10.0, 10.3]	10.2	[9.9, 10.5]	6.5	[6.3, 6.8]
Separated	1.4	[1.3, 1.4]	4.0	[3.8, 4.2]	3.1	[3.0, 3.2]
Never Married	28.5	[28.1, 28.8]	49.0	[48.5, 49.6]	42.7	[42.2, 43.1]
<i>Region</i>						
Northeast	19.6	[18.8, 20.4]	16.0	[14.9, 17.1]	13.9	[12.8, 15.1]
Midwest	27.0	[25.9, 28.2]	19.5	[18.1, 20.8]	10.2	[8.8, 11.7]
South	33.6	[32.4, 34.8]	55.4	[53.1, 57.8]	36.4	[33.7, 39.2]
West	19.8	[18.5, 21.0]	9.2	[8.4, 10.0]	39.6	[37.0, 42.2]

Table 3. Perceived Bias in Non-Fatal Violent Crime By Victim Race/Ethnicity, Incidence Rate and (average annual incidence per 100,000 US Population age 12 or older), Incidence Rate Ratios (IRR), and Incidence Rate Difference (IRD) 2003-2015

	Model 1		Model 2		Model 3		
	Rate* (95% CI)	IRR (95%CI)	IRD (95%CI)	IRR (95%CI)	IRD (95%CI)	IRR (95%CI)	IRD (95%CI)
Bias Motivated: Race or Ethnicity							
Non-Hispanic White	97.1 [79.1, 115.1]		Ref		Ref		Ref
Non-Hispanic Black	143.8 [102.1, 185.5]	1.4 [1.0, 2.0]	46.7 [1.4, 92.1]	1.3 [0.9, 1.8]	31.1 [-11.4, 73.6]	1.3 [0.9, 1.8]	29.8 [-14.9, 74.5]
Hispanic Origin	157.4 [123.4, 191.4]	1.6 [1.2, 2.1]	60.3 [20.3, 100.4]	1.3 [1.0, 1.7]	31.5 [-3.4, 66.4]	1.1 [0.8, 1.5]	17.0 [-18.9, 53.0]
Bias Motivated: Other Bias**							
Non-Hispanic White	80.1 [61.9, 98.4]		Ref		Ref		Ref
Non-Hispanic Black	92.8 [56.0, 129.6]	1.1 [0.7, 1.7]	12.6 [-27.4, 52.7]	0.9 [0.6, 1.4]	-1.0 [-39.4, 37.4]	0.9 [0.5, 1.4]	-5.2 [-45.6, 35.1]
Hispanic Origin	73.7 [39.0, 108.3]	0.9 [0.5, 1.4]	-6.4 [-45.3, 32.4]	0.7 [0.4, 1.1]	-25.2 [-60.7, 10.3]	0.6 [0.4, 1.0]	-31.0 [-65.3, 3.3]
Non-Bias Victimization							
Non-Hispanic White	2269.7 [2162.9, 2376.5]		Ref		Ref		Ref
Non-Hispanic Black	2768.8 [2526.1, 3011.5]	1.2 [1.1, 1.3]	499.1 [244.3, 753.8]	1.0 [0.9, 1.1]	92.5 [-143.4, 328.4]	1.0 [0.9, 1.1]	-13.7 [-247.8, 220.4]
Hispanic Origin	1987.3 [1840.0, 2134.5]	0.9 [0.8, 1.0]	-282.4 [-453.5, -111.3]	0.7 [0.6, 0.7]	-803.5 [-958.0, -649.1]	0.7 [0.6, 0.7]	-865.6 [-1031.0, -700.1]

*average annual incidence per 100,000 US Population age 12 or older

**Includes religion, disability, gender, sexual orientation, associated person, and perceived characteristics

Model 1 = Crude (No adjustment)

Model 2 = Adjusted for age as a continuous variable

Model 3 = Adjusted for age as a continuous variable, educational attainment, household income, and marital status

Table 4. Characteristics of Race/Ethnicity Motivated Bias Crimes by Race/Ethnicity, 2003-2015

Variable	Non-Hispanic White		Non-Hispanic Black		Hispanic	
	%	95% CI	%	95% CI	%	95% CI
<i>Type of Crime</i>						
Simple Assault	68.88	[60.5, 76.2]	61.06	[47.7, 72.9]	66.27	[55.4, 75.7]
Serious Violent Crime	31.12	[23.8, 39.5]	38.94	[27.1, 52.3]	33.73	[24.3, 44.6]
<i>Incident Characteristics</i>						
Involved a Weapon	21.6	[15.7, 28.8]	28.3	[19.2, 39.5]	24.4	[16.0, 35.3]
Involved a Firearm	5.9	[3.9, 8.8]	7.8	[4.2, 14.3]	9.2	[5.2, 15.7]
Single Offender***	53.7	[46.5, 60.8]	63.5	[50.5, 74.8]	61.7	[49.0, 72.9]
Mutiple Offenders***	42.6	[35.6, 49.9]	35.7	[24.5, 48.6]	36.9	[26.2, 49.2]
Single Offender-White***	10.8	[5.6, 19.8]	37.2	[18.7, 60.4]	33.6	[16.0, 57.4]
Single Offender-Black or African American****	45.0	[29.7, 61.3]	7.4	[2.2, 22.2]	39.9	[19.5, 64.5]
Single Offender - Hispanic or Latino****	3.5	[1.5, 7.6]	15.5	[5.3, 37.5]	5.5	[1.9, 15.1]
<i>Activity at time of Incident</i>						
Working	22.8	[12.9, 37.1]	12.9	[6.6, 23.9]	9.7	[4.7, 19.1]
On Way to/from Work/School	14.4	[8.8, 22.8]	14.5	[7.8, 25.5]	29.1	[16.0, 47.0]
Shopping/Errands	7.6	[4.5, 12.6]	8.2	[2.2, 26.1]	8.3	[3.8, 17.3]
School	13.3	[5.8, 27.7]	12.2	[5.3, 25.5]	21.4	[8.1, 45.8]
Home	21.9	[13.0, 34.5]	30.2	[16.0, 49.4]	20.9	[9.3, 40.6]
Leisure-Not at Home	20.0	[13.8, 28.0]	22.0	[12.5, 35.8]	10.5	[5.7, 18.8]
<i>Harms</i>						
Suffered an Injury	20.7	[13.7, 30.1]	31.6	[20.9, 44.7]	19.2	[12.6, 28.1]
Being A Victim Led to Problems at School or Work**	22.3	[13.5, 34.5]	39.6	[25.3, 56.0]	11.7	[6.3, 20.7]
Being A Victim Led to Problems with Family or Friends**	21.5	[12.8, 33.9]	23.2	[11.5, 41.2]	13.8	[7.8, 23.3]
<i>Victim Response</i>						
Received Medical Care* for Injuries	7.4	[5.2, 10.4]	14.5	[7.8, 25.4]	10.6	[5.4, 19.6]
Received Medical Care at a Clinic, Emergency Room, or Hospital	4.8	[3.2, 7.1]	5.9	[2.8, 12.0]	4.1	[2.0, 8.2]
Reported Incident to Police	43.9	[35.4, 52.8]	47.4	[34.4, 60.8]	46.3	[34.4, 58.7]

*Includes Self-Treatment

**Variable only available after 2008, 3rd quarter. Estimates are from 2008.3 to 2015

***Proportions may not =100% due to respondent's not knowing or an uninterpretable entry. See NVCS Codebook for details on Residue entries

****Due to coding changes in offender race/ethnicity in the NCVS, estimates for are based on the years 2012-2015

FIGURE LEGEND

Figure 1. Crime Type by Victim Race/Ethnicity by Year (fit with natural cubic spline)

