

Supplemental Material #1: Calculating Categories of Crime Across the Four Datasets

We sought to create analogous categories of the three types of crime (murder/non-negligent manslaughter, violent crime, and weapons violations) across all the datasets. The SRS categorizes crime in terms of murder/non-negligent manslaughter, violent crime (including murder/non-negligent manslaughter, aggravated assault, rape, robbery), and weapons violations.

The SRS defines aggravated assault as:

unlawful attack...for the purpose of inflicting severe or aggravated bodily injury...usually accompanied by the use of a weapon or by other means likely to produce death or great bodily harm. Attempted aggravated assault that involves the display of—or threat to use—a gun, knife, or other weapon is included

For the NIBRS, matching categories were available for murder/non-negligent manslaughter and weapons violations, as the NIBRS defines these categories in the same way as in the SRS. The category of violent crime, however, created some difficulty. The NIBRS does not have the same "aggravated assault" category as the SRS; it instead includes aggravated assault as part of the more general (and overall less severe) "assault offenses" category. Similarly, the NIBRS does not have the same "rape" category as the SRS, instead including it in the more general (and again overall less severe) "sex offenses" category.

Our solution was to be as fair as possible in dealing with the violent crime data by calculating violent crime from the NIBRS in two different ways. The first, which we term the "more severe" violent crime definition, included only murder/non-negligent manslaughter and robbery as these were the two categories defined in the same way as those in the SRS. The second, which we term the "less severe" violent crime definition, included murder/non-negligent manslaughter, assault offenses, sex offenses, and robbery.

The NCVS, as a victim self-report dataset, does not have any murder/non-negligent

manslaughter data. Regarding violent crime, the NCVS also does not classify violent crime in the same manner as the SRS. As with the NIBRS, we again aimed to be as fair as possible by computing the violent crime category for the NCVS in two different ways. The first, which we term the "more severe" violent crime definition, was a composite of the Violent Crime (V4529) items that were the most direct categories of crime corresponding to the violent crime definition in the SRS: 01 (completed rape), 02 (attempted rape), 03 (Sexual attack with serious assault), 05 (Completed robbery with injury from serious assault), 06 (Completed robbery with injury from minor assault), 07 (Completed robbery without injury from minor assault), 08 (Attempted robbery with injury from serious assault), 09 (Attempted robbery with injury from minor assault), 10 (Attempted robbery without injury), 11 (Completed aggravated assault with injury), 12 (Attempted aggravated assault with weapon), 13 (Threatened assault with weapon). The second, which we termed the "less severe" violent crime definition, was a composite of all 20 Violent Crime (V4529) items. (Items 4 and 14-20 were omitted from the "more severe" definition because they did not match the aggravated assault, rape, or robbery definitions of the SRS.)

As for weapon violation data, as the NCVS is victim self-report, it does not have any legal classifications of whether weapon law was violated. The NCVS does however ask victims about whether a weapon was used (V4049) in the offense, and we used this item as an analogue to the weapons violation data from the SRS.

For the CDC data, only an analogue of murder/non-negligent manslaughter was possible as the CDC are data compiled from death certificates. The CDC's WONDER system records the number of individuals killed by other citizens across 25 different types of assaults (ICD-10 codes; X85-Y09). A composite of all these were used to create a measure analogous to the SRS

murder/non-negligent manslaughter data.

Supplemental Material #7 and the analysis script available from the first author's website lists the web addresses from which all data were obtained.

Supplemental Material #2: Why Biased Policing Does Not Account for the Results

As noted in the text, if our criminal activity data are themselves subject to racial bias, such that police are biased in over-arresting or over-reporting Black citizens without any actual race-based differences in criminal activity, then the denominator in the odds calculation for Black citizens would be artificially high, potentially masking anti-Black bias in police shootings. Given the importance of this issue, we now describe in detail why the data we use are appropriate measures of criminal activity and why it is unlikely that any potential policing bias in these data undermines the conclusions from our analyses.

There are at least five reasons why policing bias does not account for or substantively change the conclusions of our analyses. First, we use four datasets of criminal activity: SRS, NIBRS, NCVS, and the CDC. The first two are reports that originate with the police, yet the latter two are self-reported victimization and death certificate data, respectively. There is no reasonable possibility of biased policing impacting the NCVS or CDC data and these benchmarks did not reveal any systematic anti-Black bias.

Second, comparing the results for police shootings benchmarked on *reports* vs. *arrests* does not support a biased policing account. If biased policing was present, this would result in a greater number of Blacks (compared to Whites) *arrested* for crimes relative to the number of Blacks (compared to Whites) *reported* to the police (i.e., police would be over-arresting Blacks relative to Blacks' reported involvement in crime). As the number of Blacks arrested increases the denominator in the odds ratio increases as well, which pushes the odds ratio of being fatally shot by police when benchmarked on arrests further in the anti-White direction. If police are arresting Blacks at rates higher than they are being reported for crime (i.e., biased policing is occurring), then this means we should see greater anti-White bias in odds of being shot when

benchmarked on *arrests* relative to the odds when benchmarked on *reports*. Yet this is not observed. The odds ratios for the two benchmarks are almost always equal, suggesting that Blacks are arrested at about their reported rate of crime, or the odds benchmarked on arrests show *greater* anti-White bias, suggesting that Blacks are under-arrested given their rate of reported crime. In any case, the pattern of data is inconsistent with the claim that police over-arrest Blacks and that this undermines our findings of no anti-Black bias in the odds of being fatally shot.

Third, the severity of the murder/non-negligent manslaughter data -- and the manner in which such crimes are handled -- argue against the "biased policing" interpretation. When a murder has occurred, it is unlikely that officers use discretion in whether to investigate the murder and whether to arrest a suspect if they believe they have evidence in favor of arresting that person. If anything, the argument has been made that police would investigate more thoroughly for White victims relative to Black victims, if police "didn't care about Blacks" (consistent with Black's theory of law; Black, 1976). This would imply that Blacks are *under-arrested* for murder, not over-arrested, because the large majority of murders (e.g., 87% according to 2015 SRS data) are within-race and not between-race.

Along these lines, a very low rate of fatal police shootings begin with officers patrolling neighborhoods (i.e., not in response to reports from police dispatch) or engaging in otherwise discretionary stops of citizens. Moreover, although these do have the consequence of raising the crime rates of crimes such as drug possession or other "street corner" crimes in high minority neighborhoods, these are *not* the kinds of crimes on which we benchmark the fatal police shooting data.

Data on uncleared (i.e., unsolved) homicides further suggest that the biased policing

explanation would not meaningfully change the conclusions presented in the main manuscript. Data from recent years indicate that homicides with Black victims may be cleared at lower rates than those with White victims (e.g., Litwin & Xu, 2007). Given that homicide offenders are overwhelmingly the same race as their victims, the homicide arrest rate of Black offenders is, if anything, lower than the actual homicide rate of Black offenders. Once again, this would have the consequence of biasing the results presented in the main manuscript in the direction of *overestimating* -- not underestimating -- any anti-Black bias in police use of deadly force.

Fourth, the weapons violation data provides an important test of the biased policing interpretation. Of all the measures of criminal activity reported here, arrests for weapons violations are the most subject to officer discretion (as these arrests can be the result of stop and frisk, traffic stops, and so on). If biased policing is meaningfully skewing the odds ratios, it would be most evident in the weapons violation arrests, which means that this measure should show the strongest anti-White disparity out of all the crime measures. As we show, exactly the opposite pattern holds.

Finally, one can ask about the degree of error needed in these datasets to eliminate or even reverse the results presented in the main manuscript, such that anti-Black bias in fatal shootings is actually observed. As we show, Whites are about 2.6 times more likely to be fatally shot relative to Blacks given rates of murder/non-negligent manslaughter arrests reported in the SRS. In order for the odds ratio to reduce to 1.0 (no bias), it would require Whites to be under-arrested and Blacks to be over-arrested for murder by *more than 40% each*. That is, Whites would have to commit an additional 1,620 murders for which they are not arrested and Blacks would have to be arrested for 1,856 murders which they did not commit in order to completely eliminate bias in officers' fatal shooting behavior. In order to show an anti-Black bias of the same

magnitude for which we see currently for Whites (2.6 times), Whites would have to be under-arrested and Blacks over-arrested for murder *by more than 69%*. That is, Whites would have to commit an additional 2,794 murders for which they are not arrested and Blacks would have to be arrested for 3,202 murders which they did not commit in order for the fatal shooting data to show an anti-Black bias. There is little reason to believe that the arrest data show such enormous amounts of skew.

Given these five reasons, the crime activity datasets are appropriate for the present purposes. That is, these datasets provide a reasonable approximation of criminal activity and "biased policing" explanations would not account for the patterns observed.

Supplemental Material #3: Ratings of Citizen Fighting with Officers

This was determined by four independent coders. Coders were instructed to mark as "fighting" only those cases with clear aggression against officers, "if the description of the citizen includes the citizen actively struggling or fighting with the officer." (If it was unclear from the database summary or if details were not available, further news articles were probed until a classification could be made.) Thus, behaviors such as fleeing, "advancing toward" an officer, or driving a vehicle "in the direction" of an officer were coded as not fighting. Note that this coding scheme makes anti-Black bias in fatal shootings *most* likely to be observed if officers are using race to disambiguate uncertain situations, as these more ambiguous situations are included in the "no fighting" dataset. Data are analyzed for those cases in which agreement was reached by at least three of four coders.

Supplemental Material #4: Full Multiverse Analysis

All Shootings (N = 1,561)										Unarmed Shootings (N = 102)										Reaching Shootings (N = 45)									
2015			2016			Both				2015			2016			Both				2015			2016			Both			
15	16	B	15	16	B	15	16	B		15	16	B	15	16	B	15	16	B		15	16	B	15	16	B	15	16	B	
0	0	0	0	0	0	0	0	0	1	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	1	1	1	0.06	0.06	0.06	0.3	0.3	0.3	1	
0	0	0	0	0	0	0	0	0	2	0.05	0.03	0.04	0.06	0.04	0.06	0.07	0.03	0.05	2	1	1	1	0.09	0.06	0.09	0.41	0.4	0.4	2
0.01	0	0	0	0	0	0	0	0	3	1	1	1	0.68	0.89	0.79	0.89	1	0.89	3	0.22	0.32	0.22	1	0.85	0.85	0.67	0.67	0.67	3
0	0	0	0	0	0	0	0	0	4	0.76	0.55	0.65	1	0.79	0.89	0.89	0.67	0.78	4	0.33	0.47	0.46	0.7	0.57	0.57	0.83	1	1	4
0	0	0	0	0	0	0	0	0	5	0.03	0.02	0.03	0.04	0.03	0.03	0.03	0.03	0.03	5	1	1	1	0.06	0.06	0.06	0.3	0.3	0.3	5
0	0	0	0	0	0	0	0	0	6	0.01	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.02	6	0.81	1	0.81	0.03	0.04	0.03	0.21	0.29	0.29	6
0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	7	0.18	0.19	0.19	0	0	0	0.01	0.01	0.01	7
0	0	0	0	0	0	0	0	0	8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	8	0.81	0.81	0.81	0.04	0.04	0.04	0.29	0.29	0.29	8
0	0	0	0	0	0	0	0	0	9	0.88	0.88	0.88	1	1	1	1	1	1	9	0.32	0.32	0.32	0.7	0.7	0.7	0.83	0.83	0.83	9
0.65	0.57	0.59	0.91	1	0.97	0.91	0.79	0.85	10	0.43	0.43	0.43	0.2	0.2	0.2	0.3	0.3	0.3	10	0.12	0.07	0.12	0.69	0.69	0.69	0.27	0.27	0.27	10
0	0	0	0	0	0	0	0	0	11	0.37	0.37	0.37	0.59	0.59	0.59	0.48	0.48	0.48	11	0.63	0.63	0.63	0.45	0.45	0.45	1	1	1	11
0	0	0	0	0	0	0	0	0	12	0.55	0.45	0.46	0.79	0.6	0.69	0.67	0.48	0.57	12	0.47	0.48	0.47	0.57	0.45	0.45	1	1	1	12
0.79	0.43	0.94	0.79	0.17	0.52	1	0.27	0.7	13	0.53	0.64	0.53	0.26	0.4	0.26	0.37	0.47	0.38	13	0.12	0.13	0.12	0.69	1	0.84	0.27	0.39	0.38	13
0	0	0.14	0	0.01	0.04	0	0	0.08	14	0.65	0.18	0.76	0.89	0.05	0.49	0.78	0.09	0.66	14	0.46	0.03	0.2	0.57	0.4	1	1	0.11	0.51	14
0.85	0.5	0.73	0.45	0.21	0.34	0.62	0.33	0.52	15	0.53	0.64	0.64	0.27	0.33	0.33	0.38	0.46	0.46	15	0.12	0.13	0.12	0.84	0.85	0.84	0.38	0.38	0.38	15
0	0	0	0	0	0	0	0	0	16	0.04	0.04	0.04	0.06	0.05	0.06	0.05	0.05	0.05	16	1	1	1	0.09	0.09	0.09	0.4	0.4	0.4	16

Supplemental Figure. Multiverse analysis crossing year of police shooting with year of crime benchmark for *all fatal police shootings* (left panel), *fatal shootings while unarmed & not aggressing* (center panel), and *fatal shootings while reaching for/holding a harmless object* (right panel). Each square displays the *p*-value for the Fisher's Exact test of whether statistically-significant anti-Black or anti-White bias is observed. *White squares* represent statistically-significant anti-White bias. *Black squares* represent statistically-significant anti-Black bias. *Grey squares* represent no statistically-significant bias in one direction or the other. Rows 1-16 refer to the 16 different types of crime data on which shootings are benchmarked (1 = SRS Murder Reports; 2 = SRS Murder Arrests; 3 = SRS Violent Crime; 4 = SRS Weapon Viol.; 5 = NIBRS Homicide Reports; 6 = NIBRS Homicide Arrests; 7 = NIBRS Violent Crime [more severe] Reports; 8 = NIBRS Violent Crime [more severe] Arrests; 9 = NIBRS Violent Crime [less severe] Reports; 10 = NIBRS Violent Crime [less severe] Arrests; 11 = NIBRS Weapon Viol. Reports; 12 = NIBRS Weapon Viol. Arrests; 13 = NCVS Violent Crime [more severe]; 14 = NCVS Violent Crime [less severe]; 15 = NCVS Weapon Viol.; 16 = CDC Death by Assaults).

Uppermost level of the top horizontal side refers to whether the police shooting data are drawn from 2015, 2016, or the average 2015 & 2016 ("B"). Lower level of the top horizontal side refers to whether the crime data are drawn from 2015, 2016, or the average 2015 & 2016 ("B").

Supplemental Material #5: Biased Policing in Discretionary Stops

We randomly selected a 3-month period from the 2015-2016 dataset to examine in greater detail. Each fatal police shooting was coded by three coders for whether the officer made contact with the citizen in a non-discretionary manner (e.g., in response to a 911 call or other dispatch) or a discretionary manner (e.g., pulling a car over for a traffic violation or interrogating a suspicious person).

First, we note that a very low percentage of fatal shootings begin with a discretionary stop by a police officer, 23 out of 196 (~12%) fatal shootings examined during this period. Moreover, this percentage is even lower (10 out of 196, ~5%) if one counts only those cases in which the citizen has not violated a law before being detained by officers. Therefore, regardless of any racial disparities in these numbers, it is important to first point out that the modal police shooting does not begin with discretion on the part of the officer, as tragic as these shootings might be. This conclusion is broadly consistent with Geller and Karales' (1981) summary of police shooting incidents as:

The most common shooting of a civilian by a police officer in urban America is one in which an on-duty, uniformed, white officer shoots an armed, Black male between the ages of 17 and 30 at night in a public location, in connection with an armed robbery.

Regarding race bias in these discretionary stops, we do find some evidence of racial disparities in discretionary stops. Of the 196 cases examined, 11 were of Black citizens and 12 were of White citizens, approximately equal numbers despite Blacks making up a much smaller proportion of the citizenry. Moreover, of those fatal shooting cases examined only 66 were Black citizens while 130 were White citizens.

However, a counterpoint based on the arguments of this paper might be levied that officers are more likely to have contact with Black citizens based on their greater patrolling of

high crime areas and the greater proportion of minority residents in these areas. Therefore the higher percentage of discretionary stops might be due to more frequent contact with patrolling of Black neighborhoods even while Blacks make up a smaller proportion of citizens. It is also possible that Black citizens may be more likely to violate traffic laws, again pushing for higher police contact. This highlights the difficulty of answering such questions with much certainty. The most we can say on this point is that the number of police shootings that start with truly discretionary stops of citizens who have not clearly violated the law is very low and therefore has a small impact on the overall analyses.

Supplemental Material #6: Past Research

As a means of placing this research in the broader literature on racial disparities in fatal police shootings, we first start by reiterating the major purpose of this work. The central contribution is to question the appropriateness of comparing the proportions of Black and White citizens shot by the police to each group's overall population proportion. Although there is a strong tradition of this per capita comparison in the deadly force literature (e.g., Takagi, 1974) and in the literature on group disparities in general, the incorrect assumptions underlying this comparison can render the results misleading. Instead, we show that the per capita differences in fatal shootings between Blacks and Whites are explained by exposure to the police, as indexed by crime rates. In other words, in answering the question of whether Black citizens are shot "more than we would expect," it is necessary to ask, "more than we would expect *given what?*"

We stress that this is only one avenue for understanding the complex nature of police officer deadly force decisions. Our results are in no way a final answer to understanding this difficult topic and represent only one piece of the puzzle. In light of this, it is useful to provide to readers unfamiliar with the topic a broad overview of past research.

Two themes permeate the existing literature on fatal police shootings: The messiness of prior published results and the difficulty of properly studying the topic due to data quality and sparseness. Indeed, in a recent review on the topic, Nix et al. (2017) conclude that "Collectively, the research results leave us with more questions than answers (p. 316)." Past work has found both evidence of anti-Black bias (e.g., Ross, 2015), no evidence of anti-Black bias (e.g., Fryer, 2016), and even reversals showing pro-Black bias (e.g., James, James, & Vila, 2016). At least some of this difficulty may be due to the poor quality of the police shooting data at any federal level. As departments are not required to report any shootings to a central database, it is only

recently with various journalistic and "crowd-sourcing" efforts such as those by The Guardian and The Washington Post that any remotely complete dataset has been available (see e.g., Klinger, Rosenfeld, Isom, & Deckard, 2016; Williams, Bowman, & Jung, 2016).

These difficulties have long been recognized by researchers trying to understand police deadly force decisions. For instance, Geller and Karales' (1981) summary could have been written just as well today, even as it is over 30 years old:

Several researchers have noted that, while black civilians constitute a large majority of the police shooting victims, they are also a large majority of those arrested for, or reported to have committed violent crimes of the sort that might be expected to lead to a shooting. The explanation of black over-representation among police shooting victims by reference to arrest or reported crime rates is the subject of heated public debate. Some people contend that this correlation disproves allegations of racism by police. Others contend that it proves nothing, arguing that bigotry influences both the decision to arrest and officer shooting practices. Caught in the middle are the majority of the researchers who find the racial breakdown of arrests meaningful but not dispositive of the issue of whether some shootings are racially motivated. Such researchers are struggling to devise a researchable measure which will be better than "violent" arrest rates or reported crime rates for estimating the population "at risk" of being shot by police (p 1818-1819).

With this in mind, there are three broad approaches beyond the benchmark approach that have dominated the literature on racial disparities in fatal police shootings. Given the poor quality of prior police shooting datasets and the problems of making local inferences from national-level data (such as failure to appreciate department-to-department heterogeneity), one solution has been to take a detailed look at one or a very small number of cities to understand the roles of race and crime in police shootings. When one can obtain the necessary data at the neighborhood, census tract, or precinct level, this approach can yield a rich understanding (even if it is an understanding limited to a single department). An example of this approach is Klinger

et al. (2016), who provided detailed analyses of 230 police shootings in St. Louis, MO over a nine-year period. Klinger et al. were able to ask questions about racial disparities in these shootings while controlling (in regression models) a host of important factors, including neighborhood violent crime rates. Among their many findings, one relevant finding was that the percent Black residence in a neighborhood was unrelated to likelihood of police shootings once neighborhood firearm violence was accounted for. Consistent with our own results, they conclude, "These results suggest that police use of deadly force is a function of serious crime—firearm violence in particular. Race does matter but only insofar as it increases the level of firearm violence and, even then, only to a point" (p. 212). A similar conclusion was reached by Geller and Karales (1981), who conducted a detailed analysis of shootings by the Chicago Police Department and found that Blacks were no more likely to be shot once exposure to forcible felony arrests was taken into account.

A second major approach is to conduct modeling of police shooting data across the entire nation, while using crime data from the smallest possible unit of analysis. This approach is exemplified in the recent work by Ross (2015). Ross examined nationwide county-level race bias in police shootings while statistically controlling for a host of county-level variables, including county-level race-specific assault and weapons arrest data, in multilevel Bayesian models. This analysis revealed no relationship between crime and race bias in police shootings. How can we reconcile the discrepancy between these results and our own? The most likely answer is that Ross (2015) starts with the assumption that the relevant pool of individuals against which the occurrence of police shootings should be compared is the entire population of a county, rather than the number of individuals involved in violent crime. Given this assumption, he finds evidence of racial bias and no effect of race-based crime rates. Indeed, our analyses show similar

results under this assumption (using population size as a benchmark). However, it is this problematic assumption that we question in this paper. The approach of statistically modeling crime data (as Ross does) is asking a slightly different question than the one asked in our work, though both shed light on the general complex topic of police shootings.

Combining the different approaches described thus far, an ideal case would be to have neighborhood-level analyses on police exposure in criminal contexts for all neighborhoods in the entire U.S. Even while Ross's (2015) analysis uses more local crime data, the county level is still an enormously wide region in any metropolitan area, which itself will have considerable heterogeneity.

A final approach is to use experimental laboratory tasks to assess officers' likelihoods of incorrectly shooting unarmed citizens in a more controlled environment. The most common of these tasks is Correll's (Correll et al., 2002) First-Person Shooter Task, in which participants are shown brief images of Black or White targets holding guns or harmless objects, requiring participants to press a "shoot" or "don't shoot" button in response to each. In this way, false alarms to shoot unarmed Black males can be computed.

While this task yields robust evidence of racial bias in participants' shooting decisions (Mekawi & Bresin, 2015), the contribution of these tasks to understanding real-world decisions is unclear. First, robust evidence of racial bias is found with untrained undergraduates, while trained police officers are much less likely to show any bias in their actual decisions. Second, the lack of realism of any kind in the First-Person Shooter Tasks calls into question whether the decision components at play in the task are those that match real-world decision (see Cesario, 2018). For example, Johnson, Cesario, and Pleskac (2018) found that simply providing dispatch information -- a variable present in nearly all police shootings -- eliminated race bias in this task.

Moreover, other researchers who have used more realistic laboratory shooting simulators have also failed to find evidence of racial bias (e.g., James et al., 2014).

In sum, even at a broad level it is clear that the question of racial disparity in police shootings has more questions than answers, and the uncertainty in the existing answers is in stark contrast to the certainty often portrayed in the public discussions on this topic.

Supplemental Material #7: Data Sources

Each number corresponds to a row in Table 1:

1. FBI's 2015 & 2016 Uniform Crime Reports Summary Reporting System (SRS), number of offenders **reported** to law enforcement for **murder/non-negligent manslaughter**:
*https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/expanded_homicide_data_table_3_murder_offenders_by_age_sex_and_race_2015.xls
*<https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/tables/expanded-homicide-data-table-2.xls>
2. FBI's 2015 & 2016 Uniform Crime Reports Summary Reporting System (SRS), number of offenders **arrested** by law enforcement for **murder/non-negligent manslaughter**:
*<https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-43>
*<https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/topic-pages/tables/table-21>
3. FBI's 2015 & 2016 Uniform Crime Reports Summary Reporting System (SRS), number of offenders **arrested** by law enforcement for **violent crime**, including: "murder and nonnegligent manslaughter, rape, robbery, and aggravated assault":
*<https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-43>
*<https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/topic-pages/tables/table-21>
4. FBI's 2015 & 2016 Uniform Crime Reports Summary Reporting System (SRS), number of offenders **arrested** by law enforcement for **weapons violation**:
*<https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-43>
*<https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/topic-pages/tables/table-21>
5. FBI's 2015 & 2016 Uniform Crime Reports National Incident-Based Reporting System (NIBRS), number of offender incidents **reported** by law enforcement for **murder/non-negligent manslaughter**:
*<https://ucr.fbi.gov/nibrs/2015/tables/data-tables>
*<https://ucr.fbi.gov/nibrs/2016/tables/data-tables>
6. FBI's 2015 & 2016 Uniform Crime Reports National Incident-Based Reporting System (NIBRS), number of offenders **arrested** by law enforcement for **murder/non-negligent manslaughter**:
*<https://ucr.fbi.gov/nibrs/2015/tables/data-tables>
*<https://ucr.fbi.gov/nibrs/2016/tables/data-tables>
7. FBI's 2015 & 2016 Uniform Crime Reports National Incident-Based Reporting System (NIBRS), number of offender incidents **reported** by law enforcement for the **more severe definition of violent crime**, defined as murder/non-negligent manslaughter and robbery:
*<https://ucr.fbi.gov/nibrs/2015/tables/data-tables>
*<https://ucr.fbi.gov/nibrs/2016/tables/data-tables>

8. FBI's 2015 & 2016 Uniform Crime Reports National Incident-Based Reporting System (NIBRS), number of offenders **arrested** by law enforcement for the **more severe definition of violent crime**, defined as murder/non-negligent manslaughter and robbery:

*<https://ucr.fbi.gov/nibrs/2015/tables/data-tables>

*<https://ucr.fbi.gov/nibrs/2016/tables/data-tables>

9. FBI's 2015 & 2016 Uniform Crime Reports National Incident-Based Reporting System (NIBRS), number of offender incidents **reported** by law enforcement for the **less severe definition of violent crime**, defined as murder/non-negligent manslaughter, assault offenses, sex offenses, and robbery:

*<https://ucr.fbi.gov/nibrs/2015/tables/data-tables>

*<https://ucr.fbi.gov/nibrs/2016/tables/data-tables>

10. FBI's 2015 & 2016 Uniform Crime Reports National Incident-Based Reporting System (NIBRS), number of offenders **arrested** by law enforcement for the **less severe definition of violent crime**, defined as murder/non-negligent manslaughter, assault offenses, sex offenses, and robbery:

*<https://ucr.fbi.gov/nibrs/2015/tables/data-tables>

*<https://ucr.fbi.gov/nibrs/2016/tables/data-tables>

11. FBI's 2015 & 2016 Uniform Crime Reports National Incident-Based Reporting System (NIBRS), number of offender incidents **reported** by law enforcement for **weapons violations**:

*<https://ucr.fbi.gov/nibrs/2015/tables/data-tables>

*<https://ucr.fbi.gov/nibrs/2016/tables/data-tables>

12. FBI's 2015 & 2016 Uniform Crime Reports National Incident-Based Reporting System (NIBRS), number of offender **arrests** by law enforcement for **weapons violations**:

*<https://ucr.fbi.gov/nibrs/2015/tables/data-tables>

*<https://ucr.fbi.gov/nibrs/2016/tables/data-tables>

13. BJS's 2015 & 2016 National Crime Victimization Survey (NCVS), number of victimizations **reported** for the **more severe definition of violent crime**, defined as a composite of the Violent Crime (V4529) items 01 (completed rape), 02 (attempted rape), 03 (Sexual attack with serious assault), 05 (Completed robbery with injury from serious assault), 06 (Completed robbery with injury from minor assault), 07 (Completed robbery without injury from minor assault), 08 (Attempted robbery with injury from serious assault), 09 (Attempted robbery with injury from minor assault), 10 (Attempted robbery without injury), 11 (Completed aggravated assault with injury), 12 (Attempted aggravated assault with weapon), 13 (Threatened assault with weapon), from "DS4: Incident Record-Type File":

*<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/36448>

*<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/36828>

14. BJS's 2015 & 2016 National Crime Victimization Survey (NCVS), number of victimizations **reported** for the **less severe definition of violent crime**, defined as a composite of all 20 Violent Crime (V4529) items, from "DS4: Incident Record-Type File":

*<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/36448>

*<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/36828>

15. BJS's 2015 & 2016 National Crime Victimization Survey (NCVS), number of victimizations **reported** for the **weapons violation**, defined as reporting a weapon used during a victimization, from "DS4: Incident Record-Type File":

*<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/36448>

*<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/36828>

16. CDC's 2015 & 2016 WONDER, number of **recorded** individuals **killed** by other citizens, defined as death by any of 25 assault types, from "ICD-10 codes; X85-Y09":

*<https://wonder.cdc.gov/controller/datarequest/D76> (grouping results based on "Injury Intent, Race" and restricting to "2015")

*<https://wonder.cdc.gov/controller/datarequest/D76> (grouping results based on "Injury Intent, Race" and restricting to "2016")

17. The Guardian's 2015 & 2016 database of **number of individuals killed by police gunfire**, from "The Counted," restricted to "classification=gunshot":

*<https://www.theguardian.com/us-news/series/counted-us-police-killings>

18. The Guardian's 2015 & 2016 database of **number of individuals killed by police gunfire while unarmed and not aggressing**, from "The Counted," restricted to "classification=gunshot" & "armed/unarmed=unarmed" and manually coded for no aggression against officer:

*<https://www.theguardian.com/us-news/series/counted-us-police-killings>

19. The Guardian's 2015 & 2016 database of **number of individuals killed by police gunfire while reaching for/holding harmless object**, from "The Counted," restricted to "classification=gunshot" & "armed/unarmed=unarmed" and manually coded for reaching for or holding a harmless object:

*<https://www.theguardian.com/us-news/series/counted-us-police-killings>

References: Supplement

Black, D.J. (1976). *The behavior of law*. New York, NY: Academic Press.

Cesario, J. (2018). Questioning the use of experimental social psychology to understand group disparities. *Manuscript in preparation*.

James, L., Klinger, D., & Vila, B. (2014). Racial and ethnic bias in decisions to shoot seen through a stronger lens: Experimental results from high-fidelity laboratory simulations. *Journal of Experimental Criminology, 10*, 323–340.

Johnson, D.J., Cesario, J., & Pleskac, T.J. (2018). How prior information and police experience impact decisions to shoot. *Manuscript under review*.

Litwin, K.J., & Xu, Y. (2007). The dynamic nature of homicide clearances: A multilevel model comparison of three time periods. *Homicide Studies, 11*, 94–114.

United States Department of Justice. (2016). National crime victimization survey, 2015 (ICPSR36448-v1). *Office of Justice Programs, Bureau of Justice Statistics*. Ann Arbor, MI: Inter-University Consortium for Political and Social Research [distributor].