Despite increased research on women’s criminal offending patterns, research on women’s involvement in bias crimes is almost nonexistent. This study examines bias crime incidences that are considered crimes against persons (e.g., assault, murder, robbery, sexual assault) collected in the National Incidence-based Reporting System from 2009–2012 to determine what features characterize crimes committed by men or women. Results indicate that female bias crime suspects choose different victims than male suspects; female suspects are more likely than men to target friends and family members, more likely to target other women, and more frequently commit crimes based on race/ethnicity/national origin than religion or sexual orientation-based bias crimes, and were less likely to use a firearm. Men and women were similar in their suspect characteristics (such as using alcohol/drugs before the crime) and the overall incident characteristics (such as causing injury). These results suggest that we need to more critically examine current models of bias crime commission, and to include bias crimes as another avenue to help uncover differences in male and female offending.

Keywords: Bias crimes; Hate Crimes; Females; Perpetrators; Victims; Gender differences

Introduction

There is clear evidence of a “gender gap” in criminality, a consistent finding – that across times and locations males commit more crime than females. Research has also shown that the gap between males and females differs by crime type, such as the finding that males and females commit theft and robbery at more similar rates than murder for both juveniles and adults (Cauffman, 2008; Walklate, 2004). However, one area of crime research that has not received significant attention is the gender gap in bias crime offenses. In the United States, states utilize a variety of definitions of bias crimes, but the federal government defines them as “criminal offense against a person or property motivated in whole or in part by an offender’s bias against a race, religion, disability, sexual orientation, ethnicity, gender, or gender identity” (Federal Bureau of Investigation [FBI], 2016). Federal crime data in the United States has found that the percentage of females involved as perpetrators in bias crimes ranges from one quarter to one third of bias crime offenders each year (Wilson, 2014). Similarly, the FBI reported that in 2015 women were involved in 26% of offenses and were 27% of arrestees (FBI, 2016), while a study from the Bureau of Justice Statistics focused on female offenders of crimes in general found that 14% of all violent offenders and 22% of arrestees are women (Greenfeld & Snell, 1999). Despite this finding that women are committing bias crimes in similar percentages to non-bias crimes, research on women’s involvement in bias crimes is almost nonexistent, and no theories currently exist to explain when, how, or why females commit bias crimes and whether male and female offenders may have different bias crime characteristics.

Given these challenges to understanding women’s participation in bias crimes, the purpose of this study is to explore characteristics associated with male and female suspects involved in bias crimes in the United States. While there is no existing theory to explain females’ participation, this exploratory analysis of bias crime characteristics intends to begin the process of developing a theory of female bias crime offending by describing the ways that males and female suspects are similar or different. To that end, this study utilized data from a national sample to examine similarities and differences in crime characteristics for females and males in bias crime offending. These characteristics include victim characteristics, offender characteristics, and characteristics about the commission of the crime itself (incident characteristics) to better understand females’ patterns of bias crime offending.
Characteristics of Bias Crimes and Non-Bias Crime Perpetrators

In 2015 there were over 1 million violent crimes and almost 8 million property crimes reported to law enforcement in the United States (FBI, 2016). According to the National Crime Victimization Survey in 2015, there are approximately 5 million violent victimizations, of which only about 47% are reported to law enforcement (Truman & Morgan, 2016). Men made up 73% of the arrestees in violent crimes and 63% of arrestees in property crimes in the Uniform Crime Reports (FBI, 2016), and men made up 63% of known offenders and 72% of arrestees in the National Incident-Based Reporting System (NIBRS, 2016).

Males and females have been found to offend in different ways and for different reasons. While men make up the vast majority of offenders in the United States, women have comprised a increasing percentage of offenders in the last two decades as men’s criminal conduct is decreasing at a more rapid rate than women’s criminal conduct (Lauritsen, Heimer, & Lynch, 2009). The most significant factor in the increased presence of women in the criminal justice system has been their participation in the illegal drug trade (e.g., California Department of Corrections and Rehabilitation, 2008). More than 50% of women are sentenced for property or drug offenses, while in contrast, more than 50% of men are sentenced for violent crimes (Carson & Anderson, 2016). The one area where women have been found to be the greater portion of offenders is in prostitution and commercialized vice (FBI, 2015).

In a cohort study in Finland, Elonenheimo and colleagues (2014) found that men had a peak in criminality during adolescence, while women did not have a specific peak but had similar levels of criminality across the lifespan. Similar to findings about women’s participation in violent crime overall (Koons-Witt & Schram, 2003), when examining homicide specifically, Pizarro, DeJong, and McGarrell (2010) found that women were more likely to kill someone using a knife while men were more likely to use a gun, to be slightly older on average than men, and report greater economic deprivation. In addition, women are more likely to offend against people they know rather than strangers (Mahony, 2013). Women offenders have also been found to predominantly victimize other women while men predominantly victimize other men during their offense (Greenfeld & Snell, 1999).

There are differences in the location of offenses by gender as well. According to the latest figures from The National Crime Victimization Survey (BJS, 2017), females were much more likely to commit violent crimes at or near the victim’s home (49% of females versus 31% of males). Males on the other hand, were more likely to commit violent crimes in a commercial location, 40%, compared to 20% of the female offenders. The percentages for locations reverse when we look at property crimes, particularly for personal theft or larceny. Females are roughly half as likely (12%) to commit such crimes at or near the victim’s home compared to male offenders (25%). Females are much more likely than males to commit their property crimes at commercial establishments than males, 74% and 47%, respectively. Males and females also use alcohol and other drugs in similar rates before committing violent offenses (Greenfeld & Snell, 1999).

Among non-bias crimes, the pathways perspective to offending offers the greatest theoretical contribution for female offender trajectories because it incorporates gendered differences in risk factors for offending overall (Belknap & Holsinger, 2006) as well as the manner in which the lives of girls and women in the criminal justice system are shaped differently than boys and men (Bloom, et al., 2003; Chesney-Lind, 2006; Holsinger & Van Voorhis, 2005). The pathways research suggests that female offenders, as an aggregate, are more likely to have experienced childhood victimization that is directly linked to their current offending (Pollock, 2014). The pathways research demonstrates that female offenders are more likely than their male counterparts to be/have: women of color, in their early- to mid-thirties, convicted of a drug or related offense, fragmented family histories, other family members also involved with the criminal justice system, survivors of physical and/or sexual abuse as children and adults, significant abuse problems, multiple physical and mental health problems, unmarried mothers of minor children, high school degrees/GED, but limited vocational training and sporadic work histories (Bloom et al., 2003). Thus, the pathways to offending, on average, are distinctly different for women than men (Belknap & Holsinger 2006; Bloom et al. 2003; Chesney-Lind 2006; Modley 2000). Despite early promise in explaining the differences between male and female offenders, neither the pathways model nor any other model of gendered offending has currently included bias crimes as a part of their theoretical underpinning.

Characteristics of Bias Crimes and Bias Crime Perpetrators

While bias crimes share many characteristics with non-bias crimes, scholars have highlighted the important ways in which they differ. Bias crimes have many distinguishing features, such as being committed by groups of perpetrators (Craig, 2002) who are strangers to the victim/s (Messner, McHugh, & Felson, 2004), and that occur in open or public spaces (Messner, et al., 2004) in larger percentages than non-bias crimes. Bias crimes are also more likely to be crimes against persons as opposed to crimes against property (FBI, 2015), and to cause more injury or harm to victims (Levin, 1992; Messner, et al., 2004) than non-bias crimes. These injuries are often related to the presence of weapons (Harlow, 2005; Strom, 2001), although reports of weapons use and rates of injuries have varied when examining different years and different data sources (Wilson, 2014). Bias crimes have been determined to be particularly heinous even in relatively “minor” crimes such as vandalism because of the increased levels of negative health and mental health outcomes for victims that are long-lasting, and
that these crimes also have negative impacts to victims’ communities that extend beyond non-bias crimes (Cogan, 2002; Fetzer & Pezzella, 2019). Scholars have noted that these differences are typically a matter of degree, rather than the presence or absence of a characteristic. For example, bias crimes are more likely to be perpetrated by strangers than non-bias crimes rather than bias crimes are perpetrated by strangers and non-bias crimes are not.

The variability in perpetrator information and breadth of people who perpetrate bias crimes has made characterizing bias crime offenders difficult, however, the one defining characteristic that emerges in most studies is the fact that males are responsible for the bulk of bias crimes. In fact Craig (2002) argued that constructing “a profile of the typical hate crime offender beyond predicting that he is male is debatable” (p. 97). The idea that men are primarily responsible for bias crimes is so pervasive that when evaluating potential jurors’ conceptions of bias crime, Plumm and Terrance (2013) found that layperson had a difficult time seeing women as bias crime offenders at all, even when they acted in ways identical to men whom they labeled as bias crime offenders. Current theories about bias crime offending have primarily focused on explaining male offender’s violence as part of proving their masculinity (e.g., Bufkin, 1999), females as victims, and gender as a potential protected category for inclusion in bias crime policy and laws (e.g., Hodge, 2011; McPhail, 2002), rather than more closely examining the women who do commit bias offences. One study that explicitly included sex as a predictor category for perpetrator characteristics found that women’s perpetration of bias crimes resulted in less impact on victims (were less violent) than male perpetrators or mixed sex groups (Crèvecoeur-MacPhail, 2017). However, no other perpetrator characteristics were compared between males and females.

Despite this critique that bias crime perpetrators share only their sex as a common factor, various research has offered some hints as to other shared characteristics of bias crime perpetrators. For example, studies of bias crime perpetrator characteristics have found that a disproportionate number are young adults or juveniles (Craig, 2002; Godinet & Stotzer, 2017; Iganski, Kielinger, & Patterson, 2005). Other studies have uncovered intriguing psychological issues that may increase the likelihood of an individual perpetrating a bias crime, such as a history of substance abuse or psychiatric issues (Dunbar, Quinones, & Crevecoeur, 2005), or having issues with individualizing, autonomy, and/or self-esteem (Van Der Meer, 2003). Offenders are also more likely to have been using drugs or alcohol during or just prior to the commission of a bias crime compared to non-bias crimes (Messner, et al., 2004). Results have been mixed in regard to prior criminal involvement, with most studies suggesting that bias crime perpetrators are more likely to have prior histories with the criminal justice system (Dunbar, Quinones, & Crevecoeur, 2005; Roxell, 2011), and that they are more likely to be crime “generalists” rather than specialists (Messner, et al., 2004; Roxell, 2011). Some research has also found that many bias crime perpetrators tend to be unemployed or have low socioeconomic status (Iganski & Smith, 2011). Despite these burgeoning studies of important differences in bias crime offenders compared to non-bias crime offenders, the majority of studies have found that “offenders were not consciously acting-out their prejudice or bigotry by targeting victims in premeditated violent attacks. Instead…many perpetrators of hate crime are ‘ordinary people’ who offend in the unfolding contexts of their everyday lives: prompted not by a particular ideological conviction or volition, but expressing instead sentiments that lie beneath the surface of everyday cognition for many people” (Iganski & Smith, 2011, p. 18).

The most commonly cited typology of bias crime offenders was created by Levin and McDevitt (1993), with an additional category in the typology added by McDevitt, Levin, and Bennet (2002). Based on a case review of 169 cases from Boston, this typology highlights four main categories that the majority of bias crimes fit into: 1) thrill seeking bias crimes (those motivated by a desire for excitement or the “thrill” of harming targets), 2) defensive bias crimes (where offenders feel that they are protecting their turf, most often their neighborhood, from those perceived as outsiders), 3) retaliatory bias crimes (those that are in response to a prior offense that targeted their group, or was perceived to target their group), and 4) mission-based bias crimes (those crimes fueled by deep hatred or animosity from individuals committed to a philosophy, such as white supremacists, racist skinheads, etc.). Thrill-seeking bias crimes were identified as the most common, where groups of predominantly young males who had often been drinking alcohol look for a socially acceptable victim to target for harassment, robbery, or assault as a way of reaffirming their masculinity and demonstrating power. Although frequently seen as the most prototypical bias crime offender, those who were motivated to do harm because of deeply held racist, misogynist, heterosexualist, or other privileged beliefs were the least common type of bias crime offender. Others have attempted to characterize other specific types of bias crime, such as online hate crimes (Jacks & Adler, 2015), or hate against Muslims on social media (Awan, 2014), though none have been expansive as Levin and McDevitt’s typology.

While widely cited, a later critique of Levin’s and McDevitt’s typology that attempted to replicate the findings highlight that roughly a third of cases that do not fit neatly into these four categories (Phillips, 2009), and that additional categories may be necessary (Pezzella, 2017), suggesting that there is still more to learn about bias crime offenders. Rather than separating bias crime types into a typology, some scholars have proposed underlying mechanisms for what may be driving bias crimes overall. Perry (2001) proposed a “doing difference” framework that argues high status group members (e.g., white heterosexual males) are motivated to use bias crime as a tool to maintain the status quo and thus their power and control over lower status group members (e.g., non-whites, non-heterosexuals, and non-male identified people). Other scholars have attempted to explain participation in bias crime using a strain theory framework (e.g., Levin & McDevitt, 1999). Strain theory (Merton, 1968) suggests that people who are limited in resources to attain the goals of capitalism (e.g., possessions,
property, jobs) may use crime as a mechanism to achieve those goals. Applied to bias crimes, strain theory has been used to explain that bias crime offenders commit their bias crimes due to a perception that group members are taking those resources of accomplishments that are rightfully theirs. Later scholars have suggested that perhaps both these theories plus the addition of the individual characteristic of low self-control may better explain bias crime offending (Walters, 2011).

These unifying theories often cannot fully explain the important differences in bias crime offenses, such as why gay men bear a disproportionate amount of physical violence while Jewish people’s property is most often the target of vandalism and destruction (Stotzer, 2012), or why all potential perpetrators (e.g., white heterosexual males) do not become bias crime perpetrators and only some do, the role of temporal contexts that change bias crime offending such as the post-9/11 rise in Islamophobia (Kaplan, 2006), or why members outside of high status groups (e.g., women, racial/ethnic minorities) might become perpetrators of bias crimes. While overarching explanatory frameworks are certainly needed in bias crime literature (Perry, 2003), first understanding the characteristics of bias crimes is critical to generating better theory.

To that end, this study examines bias crime incidences that are considered crimes against persons (e.g., assault, murder, robbery, sexual assault) collected in the National Incident-Based Reporting System (NIBRS) to a) describe female involvement in bias crimes, b) to determine along what characteristics females and males demonstrate similarities or differences in bias crime offending, and c) to determine which characteristics best differentiate bias crimes committed by female and male offenders. Given the exploratory nature of these questions, no specific hypotheses are proposed, rather, a set of relevant variables related to crime characteristics are explored.

**Methods**

**Sample**

Data came from the National Incidence-Based Reporting System (NIBRS) for 2009-2012, a part of the National Archive of Criminal Justice Data hosted by the Interuniversity Consortium for Political and Social Research. The data are gathered by the Federal Bureau of Investigation from local law enforcement agencies on a voluntary basis, thus, while the data does span the United States, it does not reflect a representative sample. For example, no jurisdictions in California participate, and most law enforcement agencies in large urban settings also do not participate. Unlike other forms of data collection, such as the Uniform Crime Reports, the data is not in aggregate form, but collected at the incident level from participating agencies. Thus, while limited, it is a unique dataset with millions of incidents reported each year that is critical to examine criminological questions that require an incident-based file arrangement. NIBRS data has also been successfully utilized multiple times in the past to further our understanding of bias crimes (e.g., Messner, et al., 2004; Pezzella, & Fetzer, in press).

Data collected in NIBRS is composed almost entirely of categorical variables that describe suspect information, victim information, incident information, and some procedural information such as arrests and dispositions. For the purpose of this analysis, the primary variables of interest were those incidents from the over 12 million cases reported in 2009-2012 that were marked as bias crimes, 10,051 incidents in total. For the purpose of this study, four variables related to victims, three variables related to suspect characteristics, and four variables related to the incident itself were selected for inclusion.

The NIBRS data has information about the offenses associated with the crime, such as murder, assault, vandalism, etc. These bias crime offenses were recoded into the three primary types (Category of Crime) utilized by the FBI (2012), including crimes against persons (e.g., murder, sexual assault, robbery), crimes against property (e.g., vandalism, arson) and crimes against society (e.g., weapons violations, narcotics offenses). Some incidents crossed multiple categories of offenses, such as a mugging, which might have both an assault and a robbery offense, one which is categorized as a crime against person and the other a crime against property. In those cases, the case was marked as having mixed offenses. Initial analysis found that there were very few cases of crimes against society (2.2%) among the bias crimes, and it is not clear whether these incidents were mislabeled (such an incident marked as a bias crime with the primary offense as embezzlement), given that in most jurisdictions the categories of crime covered by bias crime laws are primarily crimes against persons or property. The majority of bias crimes in this sample were crimes against persons (52.9%) followed by property crimes (39.6%), but the bias crimes against property suffered from a significant lack of information about suspects. Because property crimes, such as vandalism, are discovered long after an offender has left, the missing data for property crimes was a significant barrier to including them in the analysis. Therefore, the sample was restricted to those 5,319 crimes that had at least one offense against a person.

**Primary Variable of Interest**

Of the 5,827 crimes against person, the majority contained information about the sexes of suspects (85%). Given that there can be multiple suspects, the data for sex were recoded into three categories; 1) when all suspects with an identified sex in an incident were male (80.2%), 2) when all suspects were with an identified female (14.8%), or 3) when there was a mixed group of male and female suspects. Given that the primary variable of interest in this study is the differences between men’s and women’s bias crime offending, the 247 incidents where there were groups of mixed sex were dropped from the analysis, leaving 4,698 incidents in the analysis.
Victim characteristics

The original NIBRS datasets provide information on the number of victims in the incident. This count variable was converted into a binary variable of whether a victim was alone in the incident, or whether there were multiple victims (Victims in a Group). NIBRS also tracks victim sex, when it is known. Victim Sex was created by recoding across all victim information in each incidence; if all victims in the incident were male, they were coded male, if all victims were female, they were coded as female, but in the case where both males and females were victims, the incident was coded as “mixed sex”.

The NIBRS data classifies the type of bias into 22 types, which break down into six primary categories based on the FBI (2012) definitions. Data about Bias Type were recoded into four categories, including one single category that combines bias based on race, ethnicity or national origin, a second that represents bias crimes based on sexual orientation, the third was bias crime based on religion, and last, a category for bias crimes based on someone’s disability.

Last, NIBRS codes the relationships among all victims and perpetrators. Given this could mean 10 or more relationships among multiple people, the data were simplified into three categories, based on the closest relationship (Messner, et. al. 2004) among any of suspects and victims (Suspect/Victim Relationship). For example, if there were two suspects and one victim, and one suspect was a cousin of the victim while the other suspect was a stranger, the incident was marked as being among “intimates” (meaning family, girl/boyfriends, friends, etc.), while cases where no suspects and victims knew one another, the relationship was listed as “strangers.” In the middle were cases where the closest relationship was among those who were not strangers, but not necessarily an intimate acquaintance, such as co-workers, neighbors, etc.

Suspect characteristics

Similar to the victim characteristics, suspect composition (either alone or in a group) was recoded into a binary variable (Suspect in a Group). The NIBRS data also has a variable that marks crimes that show evidence of certain types of items being used either before or during the commission of the crimes, such as computers, alcohol, or narcotics. This existing variable was recoded into a binary variable (AOD Use) to indicate whether there were signs that offenders had used alcohol or other drugs prior to committing the bias crime. Given the worrying number of youth involved in bias crimes (Godinet & Stotzer, 2017), all incidents were coded as either having an offender under the age of 18 or not (Youth Involvement).

Incident characteristics

The NIBRS data also classifies incidents as occurring at one of 56 locations. This variable was recoded into three categories (Location of Incident) similar to Messner et al. (2004) and their coding, including when a crime occurred in someone’s home, when the crime occurred in a public place that is enclosed and has clear boundaries (such as an office building, a restaurant, or school), and when the incident occurred in a public place that was not enclosed or did not have clear boundaries (e.g., public parks, campgrounds, rest areas) or was while people were in transit (e.g., streets or alleys, bus stops, parking garages).

For crimes against persons, the NIBRS data includes the types of weapons, if any, were used in the offense (Weapons Used). The 21 categories of weapon type were collapsed into five categories; “None,” when no weapons were used, “Firearms” when a gun was present, “Other Instruments” when tools such as knives or blunt objects were used, “Personal Weapons” when people used their hands, feet, teeth, or other parts of their body, and “Other” which included tools such as poison, motor vehicles, or tools used to asphyxiate.

NIBRS data also includes information about the type of injury that victims experienced (Injuries). These were originally entered in eight categories, but for the purpose of this analysis were recoded into three – no injuries, minor injuries (e.g., small lacerations, bruises), and major injuries (e.g., unconsciousness, broken bones, severe lacerations). Similar to other variables, there could be multiple victims with a variety of injuries. The incident was coded by the most severe injury type. For example, if two victims received minor injuries and one received major injuries, the incident was coded as major injuries.

Last, the type of offense was recoded into five categories, intimidation, assaults (aggravated or simple assault), murders or homicides (murder, nonnegligent manslaughter and negligent manslaughter), kidnapping, and sex offenses (forcible rape or sodomy, and sexual assault with an object, forcible fondling) to create the Bias Type variable.

Data Analysis

To examine similarities and differences between female and male suspects of bias crimes, and to determine variables that were significantly associated with sex of the suspect, bivariate statistics (chi squares) were used. To gain a better understanding of women suspects and the degree to which selected factors predict whether it was a female suspect of bias crimes, logistic regression was used. This is the method of choice when predicting the likelihood that it is a woman suspect given that the main variable of interest was measured as a dichotomous variable (women=1, men= 0). The variables that retained significance in the bivariate analyses constructed a model that would best fit the data in predicting women as suspects. All variables were added simultaneously due to the exploratory nature of this study and the limited available information and theory on women offenders of bias crimes.
Results
Of the 4,698 cases of bias-motivated crimes against persons with information about the sex of the suspects, women were suspects in 15.6% of incidents. The most common type of bias motive in the incident was bias based on race/ethnicity/national origin (69.6%), followed by sexual orientation (21.3%), religion (6.5%) and disability (2.3%). Victims were most often men (64.2%) and alone (78.2%). These crimes occurred in diverse locations (residence – 36%, enclosed public place – 30.3%, open/in transit public places – 33.7%) with signs of alcohol use prior to the commission of the crime in 17.0% of cases. Suspects were most often alone (79.0%) and targeted people that they know (62.9%). In most incidents, the suspect used their own body as a weapon (61.5%) and in 11.1% of incidences caused major injuries (45.5% minor injuries).

While suspect information is very limited, among the 8,039 suspects for whom both sex and race was listed, the majority were white (70.9%), followed by black (26.7%), American Indian/Alaska Native (1.5%), and Asian/Pacific Islander (0.9%). Both males and females followed the same pattern, although a statistically significant difference emerged ($\chi^2 = 32.15, p < .001$). Males were slightly more likely to be white (71.9% compared to 66.5%), slightly less likely to be black (25.8% compared to 30.3%), slightly less likely to be American Indian/Alaska Native (1.3% compared to 2.6%), and slightly more likely to be Asian/Pacific Islander (1.0% compared to 0.5%) than females. Among the 7,662 offenders who had both a sex and an age listed, suspects were found to be in their late 20s with a statistically significant difference between males and females ($t = 3.09, p < .002$).

Comparing male and female suspects – bivariate statistics
As can be seen in Table 1, incidents that involved male and female suspects involved in bias crimes differed markedly across multiple variables when chi-squares tests were conducted on each characteristic of the crime. In regard to victim characteristics, men and women targeted victims who were alone in most of the incidents. However, women were more likely to target other women as victims (59.9%) while men victimized a higher percentage of men (69.9%). In the majority of cases both men and women targeted known others, but a higher percentage of men than women targeted strangers. While the majority of incidents were bias crimes based on race/ethnicity/national origin, women were involved in a greater percentage of those incidents than men, while a larger percentage of men were involved in bias crimes based on a victim’s real or perceived sexual orientation.

Two of the three variables reflecting suspect characteristics were found to be statistically significant. Men and women had similar rates of having used alcohol or drugs prior to the commission of the bias crime, with incidents involving male suspects reflecting a slightly higher percentage (17.5%) than incidents involving women suspects (14.2%). A higher percentage of incidents involving male suspects were also committed by a group of suspects (as opposed to a lone offender) when compared to female suspects. However, the percentage of female or male youth involved in these bias crime incidents did not differ at a statistically significant level.

When examining the incident characteristics, three of four variables were statistically significant. The greatest percentage of women committed their bias crimes in residences while men were more equal opportunity offenders when it came to location. However, the largest difference was in the percentage of men who committed their crimes in open public locations (35.6%), such as streets, alleys, and parking lots, compared to women suspects (11.1%). In regard to weapons, a slightly higher percentage of male suspects used firearms or other weapons, while women used a slightly higher percentage of personal weapons. This resulted in cases involving female suspects reporting a slightly lower percentage with injuries, while incidents involving male suspects had a higher percentage that also involved major injuries to the victims. Given that the vast majority of offenses were labeled as either intimidation or assaults, there was no statistically significant difference between men and women in crime type.

Comparing male and female suspects – logistic regression
As shown in Table 2, eight of the variables from the bivariate analyses that were significantly associated with suspect sex were then entered in the multivariate analysis. Because of the exploratory purpose of the analysis, a simultaneous method of entering the variables was used. As can be seen in Table 1, of the 4,698 cases that had sex of suspects identified and that did not contain mixed sex groups of suspects, there were variables with notable amounts of missing data – the utilization of weapons and injuries in particular. Given the high degree of missingness, imputation is not recommended, particularly for categorical variables. Therefore, we omitted any cases that had missing data, leaving 2,221 cases in the final logistic regression. An examination of those cases that had missing data compared to those without, those with missing information were slightly more likely to be crimes based on religious bias, to have occurred in residences, and to have suspects who were identified as acquaintances.

The results of the full model was statistically significant, $X^2 (17) = 280.436, p < .0001$ (Table 2). Based on the Nagelkerke $R^2$, the variables in the model predicted 20% of the variability in sex of the suspect of bias crime and correctly classified 84.2% of cases. The full model showed only the five of the eight variables were statistically significant. A closer examination of the results in Table 2 showed victim’s sex to indicate the biggest difference controlling for other factors in the model. Females were over five times more likely than males to be the target of bias crimes by a female suspect (OR = 5.292, 95% CI
Table 1: Descriptive Statistics for Crimes against Persons by Suspect Sex.

| Victim Characteristics | Total (n = 4,698) | Female Suspect/s (n = 732) | Male Suspect/s (n = 3,966) | χ² |
|------------------------|------------------|-----------------------------|----------------------------|----|
| Victims in a group (n = 4,698) | 1,023 (21.7%) | 155 (21.2%) | 868 (21.9%) | 0.18 |
| Sex of victim/s (n = 4,664) | | | | 433.77*** |
| Male | 2,992 (64.2%) | 240 (33.0%) | 2,752 (69.9%) | |
| Female | 1,322 (28.3%) | 436 (59.9%) | 886 (22.5%) | |
| Mixed sex group | 350 (7.5%) | 52 (7.1%) | 298 (7.6%) | |
| Suspect/victim relationship (n = 3,997) | | | | 53.08*** |
| Strangers | 1,482 (37.1%) | 162 (25.0%) | 1,320 (39.4%) | |
| Acquaintances | 2,057 (51.5%) | 382 (59.0%) | 1,675 (50.0%) | |
| Intimates | 458 (11.5%) | 104 (22.7%) | 354 (10.6%) | |
| Bias Type (n = 4,697) | | | | 28.64*** |
| Race/Ethnicity/National Origin | 3,269 (69.6%) | 561 (76.6%) | 2,708 (68.3%) | |
| Religion | 307 (6.5%) | 43 (5.9%) | 264 (6.7%) | |
| Sexual Orientation | 999 (21.3%) | 104 (14.2%) | 895 (22.6%) | |
| Disability | 122 (2.6%) | 24 (3.3%) | 98 (2.5%) | |
| Suspect Characteristics | | | | |
| AOD use (n = 4,698) | 800 (17.0%) | 104 (14.2%) | 696 (17.5%) | 4.89* |
| Suspects in a group (n = 4,698) | 989 (21.1%) | 110 (15.0%) | 879 (22.1%) | 18.58*** |
| Youth Involvement (n = 4,373) | 888 (20.3%) | 155 (22.5%) | 733 (19.9%) | 2.36 |
| Incident Characteristics | | | | 39.14*** |
| Location of Incident (n = 4,321) | | | | |
| Residence | 1,556 (36.0%) | 297 (43.5%) | 1,259 (34.6%) | |
| Public Places – Enclosed | 1,309 (30.3%) | 225 (32.9%) | 1,084 (29.8%) | |
| Public Places – Open/In transit | 1,456 (33.7%) | 161 (11.1%) | 1,295 (35.6%) | |
| Weapons Used (n = 2,935) | | | | 30.50*** |
| None | 254 (8.7%) | 41 (9.3%) | 213 (8.5%) | |
| Firearms | 183 (6.2%) | 7 (1.6%) | 176 (7.1%) | |
| Other Instruments | 369 (12.6%) | 37 (8.4%) | 332 (13.3%) | |
| Personal Weapons | 1,804 (61.5%) | 297 (67.5%) | 1,507 (60.4%) | |
| Other | 325 (11.1%) | 58 (13.2%) | 267 (10.7%) | |
| Injuries (n = 2,986) | | | | 26.71*** |
| None | 1,298 (43.5%) | 221 (49.3%) | 1,077 (42.4%) | |
| Minor Injury/ies | 1,356 (45.4%) | 208 (46.4%) | 1,148 (45.2%) | |
| Major Injury/ies | 332 (11.1%) | 19 (4.3%) | 313 (12.3%) | |
| Crime Type (n = 4,698) | | | | 8.92 |
| Intimidation | 1,702 (37.3%) | 284 (39.0%) | 1,418 (37.0%) | |
| Assault | 2,778 (60.9%) | 440 (60.4%) | 2,338 (61.0%) | |
| Homicide/Manslaughter | 13 (0.3%) | 0 (0.0%) | 13 (0.3%) | |
| Kidnapping | 14 (0.3%) | 0 (0.0%) | 14 (0.4%) | |
| Sex Offenses | 55 (1.2%) | 4 (0.5%) | 51 (1.3%) | |

Note: p < .000, * p < .05, ** p < .01, *** p < .001.
Portions of the text and table from the original document are transcribed below:

...and victims of mixed sex groups were also two times more likely to be the target of bias crimes by a female suspect (OR = 2.004, 95% CI = 1.208–3.325) compared to male only victims. Furthermore, suspect/victim relationship was significant in the model. Specifically, an intimate was more likely to be the target of female suspects compared to strangers (OR = 1.568, 95% CI = 1.161–2.117). Bias type shows significance but in the opposite direction to indicate that religious and sexual orientation bias crimes (OR = 0.435, 95% CI = 0.229–0.826 & OR = 0.482, 95% CI = 0.346–0.671 respectively)

Table 2: Logistic Regression Analysis for Variables Predicting Female Bias Crime Suspect.

| Predictors                        | B (SE)        | Confidence Interval (95%) |
|-----------------------------------|---------------|---------------------------|
| Constant                          | -2.385 (0.299)*** |                           |
| Victim Characteristics            |               |                           |
| Sex of victim/s (n = 4,664)       |               |                           |
| Male                              |               |                           |
| Female                            | 1.666 (0.137)*** | 5.292 4.045 6.922         |
| Mixed sex group                   | 0.695 (0.258)* | .004 1.208 3.325          |
| Suspect/victim relationship (n = 3,997) |           |                           |
| Strangers                         |               |                           |
| Acquaintances                     | 0.386 (0.216)  | 1.470 0.962 2.247         |
| Intimates                         | 0.450 (0.153)** | 1.568 1.161 2.117         |
| Bias Type (n = 4,697)             |               |                           |
| Race/Ethnicity/National Origin     |               |                           |
| Religion                          | -0.833 (0.327)** | 0.435 0.229 0.826         |
| Sexual Orientation                | -0.730 (0.169)*** | 0.482 0.346 0.671         |
| Disability                        | -0.272 (0.321) | 0.762 0.406 1.429         |
| Suspect Characteristics           |               |                           |
| AOD use (n = 4,698)               | -0.085 (0.159)  | 0.918 0.673 1.254         |
| Suspects in a group (n = 4,698)   | -0.219 (0.167)  | 0.803 0.579 1.114         |
| Incident Characteristics          |               |                           |
| Location of Incident (n = 4,321)  |               |                           |
| Residence                         |               |                           |
| Public Places – Enclosed          | -0.240 (0.168)  | 1.272 0.915 1.768         |
| Public Places – Open/In transit    | -0.150 (0.177) | 0.861 0.608 1.218         |
| Weapons Used (n = 2,935)          |               |                           |
| None                              |               |                           |
| Firearms                          | -1.225 (0.479)** | 0.294 0.115 0.751         |
| Other Instruments (knives, bats)  | -0.161 (0.305) | .851 0.468 1.547          |
| Personal Weapons (hands, feet)    | 0.109 (0.225)  | 1.115 0.717 1.733         |
| Other                             | 0.150 (0.274)  | 1.168 0.683 1.998         |
| Injuries (n = 2,986)              |               |                           |
| None                              |               |                           |
| Minor Injury/ies                  | -0.067 (0.134)  | 0.935 0.719 1.216         |
| Major Injury/ies                  | -0.485 (0.286) | 0.616 0.352 1.078         |

Note: Cox & Snell $R^2 = .119$ & Nagelkerke $R^2 = .204$. Model $X^2 (16) = 280.436, p < .000$. * $p < .05$, ** $p < .01$, *** $p < .001$; * Reference category.
were less likely to have been committed by women suspects compared to bias crimes based on race and ethnicity. The use of weapons was also found to be significant in the model (OR = 0.294, 95% CI =0.115–0.751), with men being more likely than women to use firearms rather than have no weapons.

Conclusions and Discussion
The results of this study of NIBRS data from 2009-2012 show that crimes against persons involving males and females who are suspects in bias crimes share many similar characteristics, but there are also important differences that deserve attention. Females demonstrated the greatest differences in their victim selection, being more likely than males to victimize their friends and family members, to victimize other women or a group of victims that include women, and were more likely to be motivated by a victim’s race/ethnicity/national origin than other bias types. However, incidents involving male and female offenders had similar suspect characteristics and incident characteristics outside of the use of weapons, suggesting the greatest difference between male and female bias crime offenders is how they select their victims.

While males and females demonstrated differences at the bivariate level in regard to the use of alcohol or other drugs before the commission of the crime and being in groups of suspects rather than acting alone, these differences did not retain statistical significance in the logistic regression. In regard to characteristics of the crime itself, bivariate statistics suggested women were more likely than men to commit their crimes in residences rather than public spaces. However, this difference in location was not significant in the logistic regression. While injury severity was statistically significant at the bivariate level, neither was significant in the logistic regression, but weapons use was significant with women being less likely than men to use a firearm.

Many of these differences reflect the differences between men and women who commit non-bias crimes. For example, men are more likely to use firearms in non-bias crimes than women, which held true among these bias crimes as well. Similar to the pattern of offending among non-bias crimes, women were more likely to victimize people they knew, particularly intimates, while men targeted strangers in a higher percentage. Also similar to non-bias crimes, female bias crime suspects victimized other women in higher percentages while men predominantly victimized other men.

New information uncovered in this analysis was the fact that women were overrepresented among bias crimes based on a victim’s race/ethnicity and underrepresented among bias crimes based on sexual orientation or religion. In these ways men and women may differ in their bias crime violence in ways that are similar to the ways that men and women differ in perpetrating non-bias crimes. And, too, women may also be exhibiting patterns that align with theories around multiple marginality, that gender, race, and class all intersect to shape the social space within which women commit crime (Chesney-Lind, 2006). These data cannot be used to explain why female bias crime offenders were more likely to commit crimes in residences, against individuals they knew, and without weapons. However, the general pattern of female offender restrictions within patriarchal structures would suggest that limited opportunities restrict their ability to commit bias crimes as well. In other words, gender roles and socialization may very well restrict the opportunities to commit both bias and non-bias crimes, so crimes are closer to home and without the benefit of weapons. A pathways perspective would also suggest that female bias crime offenders are more relational in their crime choices (Belknap & Holsinger, 2006).

A pathways perspective is useful in the interpretation of the important differences that emerged when comparing these results among bias crimes to the pattern of male and female offending in non-bias crimes. Female suspects were more likely to target victims in residences among non-bias crimes, and while that relationship held true among bias crimes at the bivariate level, this relationship did not emerge as significant in the regression analysis. Male suspects have also been found to cause more serious injury than female suspects in non-bias crimes, and again, this was found among non-bias crimes at the bivariate level, but not in the regression analysis. In these ways, male and female suspects may be more similar, and gender less of a predictive factor, when committing bias crime than when committing non-bias crimes.

While much more needs to be discovered in the area of gender and the commission of bias crimes, these findings are nonetheless interesting in light of the pathways approach to understand female offending, arguably the most prevalent model of analyzing and thinking about female crimes today. The pathways model, in the main, explains how histories of victimization often precede female offending, and how crimes are often linked to survival, physical or emotional (Belknap & Holsinger, 2006). In this light, non-bias crime offending for women can be thought of as a reaction to circumstances. Bias crimes are different, though. There is not always a tangible gain from the commission of a bias crime. These crimes are about motivation, and it is unclear whether, if at all, the traditional pathways approach can apply to bias crime offending. The nature of bias crimes makes it unlikely that crimes of this type are related to survival. Also unclear is whether female bias crime offenders might fit into one of the multiple pathways to crime as presented by Brennan, Breitenbach, Dieterich, Salisbury, and von Voorhis (2012) as they relate to the feminist pathways approach. Or, as Pezzella (2017) questions, perhaps additional categories need to be added to the McDevitt, Levin, and Bennet (2002) typology of bias offenders. The research in this area is too sparse, and new, to make that determination at this time.

While these results do not conclusively create a model for female's participation in bias crimes, nor were they intended to, they nonetheless offer an important lens on the examination of bias crime, and offers avenues for future research to build
theories for the gendered nature of bias crime involvement. Current theories around the gendered nature of bias crime has centered around men, both as victims and as offenders, these results highlight that bias crimes are not inherently the domain of men. Prior research into sexual orientation-based bias crimes has found that bias crimes are deeply intersectional (Meyer, 2008; 2010; Stotzer, 2010), and that race, class, and gender are often intertwined. Rather than looking at gender alone, this finding demonstrates a need to look more closely at how gender interacts with other factors in order to better explain why women target women and men target men during bias crime incidents.

While this study offers a preliminary glimpse into the differences between men and women’s pattern of bias crime offending, there are significant limitations to the study. First, a significant proportion of bias crimes are not reported to officials (Harlow, 2005), suggesting an initial bias in any official reports, including NIBRS, that may not capture the entire spectrum of bias crime. Second, while NIBRS is a significant improvement in data collection across the United States, it is not representative. Because of the laborious nature of processing incident-level reporting to the federal government, densely populated cities and states have not traditionally provided data to NIBRS. Thus, these findings might be generalizable to less dense jurisdictions rather than bias crimes that have been committed in dense urban locations. Third, the categorical nature of the data collection in NIBRS means that significant nuance in motives and crime characteristics have been lost. While some inferences can be drawn from the patterns in bias crime characteristics, additional research that can directly provide explanatory information are sorely needed. Fourth, as is typical with most large-scale, voluntary data collection efforts, missing data are a significant concern for generalizability. In particular, the variables related to weapons use and injury severity had the largest percentage of missing data compared to other variables in the analysis and limited the sample size. Fifth, the study was limited to crimes against persons since those crimes are more frequently able to identify a suspect compared to property crimes, such as vandalism, which are often discovered after the act has been completed. Given the large portion of bias crimes that are against property, particularly anti-Semitic bias crimes, this study cannot be generalized to bias crimes overall, only to those that are considered crimes against person. Last, while this study examined the unique characteristics of males and females, incidents that involved mixed gender groups of suspects were excluded. Future studies should examine to what degree these mixed gender groups share, or diverge from, the characteristics of men’s and women’s offending.

Taken together, these analyses suggest that current characterizations of bias crimes as occurring in public between strangers may have some viability for characterizing men’s participation in bias crimes, but does not adequately match the pattern of women’s offending. Similar to studies of non-bias crimes and the pattern of male and female offending, this study can directly identify how male and female offenders are similar or different, but can only indirectly offer possible explanations for why these differences exist. This research fills a current gap by informing what the nature of gendered bias crimes looks like. But, further research into female bias crime offenders can inform the current bias crime literature by expanding the understanding of offenders and their (gendered) motives. The sex differences in victim selection, rather than incident or offender characteristics, can also prove a fruitful area of additional research to further explore the differences between male and female offenders overall. However, there were also many similarities between men and women in the characteristics of their crime, and future research should begin isolating what factors may be driving these differences and what rewards and reinforces men’s and women’s bias crime offending.

Future research should employ a decidedly feminist approach, ensuring that female bias crime offenders are an intentional component of research, and that their voices are heard. Qualitative data of this nature are needed in order to inform the patterns demonstrated from this study. These types of data, merged with the quantitative data presented in this study, can create a foundation around which theory can begin to be built as well as an understanding of how, if at all, females ‘do gender’ in the commission of bias crimes.

**Competing Interests**

All authors have no competing financial, professional, or personal interests that have influenced the work of this paper.

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