Are Domestic Incidents Really More Dangerous to Police? Findings from the 2016 National Incident Based Reporting System

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Abstract

It is widely believed among police officers that domestic incidents are among the most dangerous incidents to which they respond. However, most research in this area suffers from the "denominator problem," where prior studies have focused on incidents resulting in harm to police officers and failed to account for incidents not resulting in harm. Such methodologies can produce drastically misleading results. This paper uses data from the 2016 National Incident Based Reporting System (NIBRS) to overcome the denominator problem. We examine the probability of (1) an officer being assaulted and (2) an officer being injured or killed when responding to a domestic incident compared to a non-domestic incident while controlling for other potentially important variables. Results indicate that officers are significantly more likely to be assaulted or injured when responding to *non*-domestic incidents. Implications for law enforcement training, victim legitimacy, and future research are discussed.

Key words: domestic violence, violence against police, assaults, injuries, NIBRS

For decades, a strongly held police axiom has claimed that domestic incidents are inherently more dangerous to responding officers than other calls for service (e.g., Bard, 1970; Black, 1980; Uchida et al., 1987). For instance, in 1963, the January issue of the *FBI Law Enforcement Bulletin* noted that "disturbance" calls – which include domestic calls – require officers to "exercise extreme caution, for the danger in these situations is usually from the emotionally enraged or mentally disturbed person" (p. 26). While empirical support for such claims is, at best, mixed (Bierie, 2017; Garner & Clemmer, 1986; Margarita, 1980a), this longstanding belief was recently reinforced in a widely circulated report from the Department of Justice's Office of Community Oriented Policing Services (COPS) and the National Law Enforcement Officers Memorial Fund (NLEOMF). Upon observing that between 2010 and 2014, 22% of the 91 calls for service resulting in a police officer fatality were domestic disputes, the authors concluded that such calls are "the most dangerous type [of call] for responding officers" (Breul & Keith, 2016, p. 15). They went on to recommend "having three or more officers at a domestic situation to adequately separate parties, monitor family members and, if necessary, physically restrain and arrest a suspect" (p. 16). This report was summarized as a research in brief for *Police Chief* – the official publication of the International Association of Chiefs of Police (Breul, 2017) – and reviewed on websites like PoliceOne.com (Wylie, 2016), whose 650,000+ registered member officers were told "the findings and recommendations…should be taken to heart." It was further covered by media outlets such as *VICE News* (Owen, 2016), *The Guardian* (Lartey, 2016), and *ABC News* (Nestel, 2017), which helped disseminate the report's findings and recommendations to the general public.

Yet, observations such as those in the *FBI Law Enforcement Bulletin* and the COPS/NLEOMF report are troubling for two reasons. First, there was a tendency early on to

lump domestic and general disturbances together, when in reality, domestic disturbances are only one form of a disturbance (Garner & Clemmer, 1986). Second, a critical limitation of their methodologies (and much of the research on this topic) is the same "denominator problem" that has plagued other areas of police research, including the study of racial disparities in traffic stops (Alpert, Dunham, & Smith, 2007; Fridell, 2004; Grogger & Ridgeway, 2006; Neil & Winship, 2019; Walker, 2001) and officer-involved shootings (Cesario, Johnson, & Terrill, 2018; Fridell, 2017; Tregle, Nix, & Alpert, 2019). For example, in order to determine whether a particular group is stopped or shot disproportionately by the police, researchers face the difficult task of identifying the population of individuals exposed to the risk of being stopped or shot. A similar challenge presents itself when attempting to surmise whether domestic incidents pose more of a threat to police officers than other incidents. Focusing on the rare instances in which officers are assaulted or injured – to the exclusion of the vast majority of instances in which officers are *not* assaulted or injured – can produce drastically misleading results. In other words, the key question that must be asked is: *among all police-citizen interactions*, are domestic incidents more dangerous to officers than other types of police-citizen interactions?

The present study seeks to address this critical gap in the literature by using data from the 2016 National Incident Based Reporting System (NIBRS) to assess whether domestic incidents (defined as involving at least one victim and one offender who were current/former intimate partners or family members) posed greater danger to police officers than non-domestic incidents, in the form of (1) assaults or, more specifically, (2) assaults resulting in injury/death. This study is the first, to our knowledge, to use national data to consider whether domestic incidents are inherently more dangerous than other incidents, while using an appropriate benchmark (i.e., the universe of incidents, including those not resulting in assaults or injuries). Our findings do not

support conventional wisdom and have significant implications for training and policy. Before turning to a discussion of our methodology and results, we shall first briefly review the extant literature on the nature of policing domestic incidents.

Uncertainty and Danger: Domestic Incidents from the Officer Perspective

In the late 1940s, during one of the earliest case studies of a municipal police department, William Westley (1970, p. 61) recalled an officer saying:

> You know, if there is one thing these men hate more than anything else it is to go out on a call for a family quarrel. You ought to see their faces when they hear that call come over the radio.

Two decades later, during field observations in Boston, Chicago, and New York City in the 1960s, Donald Black (1980) learned that one of the primary reasons officers loathed responding to domestic disputes was the uncertainty and danger associated with them. In fact, he noted that officers frequently drove slowly when en route to a domestic dispute—hoping the matter would resolve itself by the time they arrived. As one officer explained, "All we get when we go in on a family trouble is humiliated…Half the time both parties turn on us" (Black, 1980, p. 189). Indeed, in Chicago, Parnas (1967) determined that it was not uncommon for female complainants to attack police officers if they attempted to arrest or use coercive force against their intimate partner.

Years later, Davis (1981, p. 11-12) observed and interviewed officers in a small police department on the west coast and discovered that when responding to domestic disputes, the norm was to "anticipate trouble," as officers worried victims might "'turn' on them and redefine them as the emergent villain" (see also Sinden & Stephens, 1999; Younglove et al., 2002). More recently, in a study involving interviews with officers in Arizona, domestic calls were characterized as full of unknowns, non-routine, and "a hot-bed of emotions" (Toon & Hart, 2005,

p. 21). Survey-based research yields findings consistent with these: the majority of officers indicate they are more likely to be injured responding to domestic incidents than those involving strangers (Gover et al., 2011; McPhedran et al., 2017).

Even inexperienced officers appear to share the belief that domestic incidents are inherently more unpredictable and dangerous than other calls. This is likely the result of training and socialization. Parnas (1967, p. 920) noted with regard to how Chicago police officers were trained to handle domestic incidents, "the overall emphasis…seems to be on the danger." Indeed, upon asking probationary patrolmen what they learned in the academy concerning how to handle domestic disputes, "[a]lmost all" of them recalled only that they "are often quite dangerous," and recollected FBI statistics suggesting as much (p. 920-21).

The evidence is clear: police officers tend to believe domestic incidents are more unpredictable and dangerous than other calls. Such perceptions are likely to transcend time and space as they are get passed down "through police folklore" (Konstantin, 1984, p. 32; see also Waddington, 1999). In other words, because "police vicariously experience, learn, and re-learn the potential for danger through 'war stories'" shared by veteran officers (Kappeler, Sluder, & Alpert, 1994, p. 100), officers may come to expect increased danger from domestic incidents even without having direct experience being assaulted or injured on such calls. The lingering question is whether such perceptions – formed directly or otherwise – reflect reality.

Measuring the Danger of Domestic Incidents

In addition to gauging officers' perceptions of domestic incidents, researchers have analyzed official data in an attempt to quantify the danger of domestic incidents to responding officers. This typically involves an enumeration of assaults, injuries, and/or fatalities of officers resulting from domestic and non-domestic incidents. For instance, as part of an evaluation of an

NYPD family crisis intervention training program, Bard (1970) reported that assaults and injuries experienced by officers often resulted from "the highly volatile family conflict situation" (p. 5). Such conclusions, coupled with the early use of the terms *domestic disturbances* and *general disturbances* interchangeably, created confusion about whether officers indeed face greater danger when they respond to domestic incidents. Because general disturbances can include calls for non-domestic related disputes and fights, it is inappropriate to conflate them with domestic incidents (see discussion in Garner & Clemmer, 1986; Ellis, 1987). Once researchers began to separate domestic incidents from general disturbances, findings suggested that domestic incidents were in fact less likely than other disturbances and traffic incidents to result in assaults on or injuries to officers (Garner & Clemmer, 1986). While contemporary research has largely refrained from lumping domestic incidents together with other disturbance calls, the evidence regarding the dangerousness of domestic incidents to officer safety remains mixed. Some studies continue to suggest that domestic incidents are particularly dangerous to police (e.g., Breul & Keith, 2016; Kercher et al., 2013) while others fail to support this contention (e.g., Crifasi et al., 2016; Ellis et al., 1993; Kaminski & Sorensen, 1995; Stanford & Mowry, 1990).

In 1994, Hirschel and colleagues stated that there are no "clear-cut, generalizable conclusions" (p.111) regarding whether domestic incidents are inherently more dangerous to officers. The same can be said 25 years later. However, we believe that this is primarily the result of studies drawing conclusions about the inherent danger of domestic incidents without consideration of the denominator (i.e., the total number of incidents to which officers respond).[1] Straus, Gelles, and Steinmetz (1980, p. 232), for example, proclaimed, "As many police officers

[1] For exceptions, see Garner & Clemmer (1986), Ellis et al., (1993), and Stanford & Mowry (1990). Notably, these studies are now dated and analyzed data from just a few agencies.

are killed answering domestic disturbance calls as are killed pursuing armed robbers." More recently, Kercher et al. (2013) found that between 1996 and 2010, domestic incidents were the third most common incident involving an officer fatality. Breul and Keith (2016) examined 684 officer deaths in the line of duty from 2010 to 2014 using data compiled by the National Law Enforcement Officer Memorial Fund and found that of the 91 deaths that occurred following a call for service, 20 (or 22 percent) were calls regarding domestic incidents.[2] Examining assaults on officers, Barrick et al. (2018) analyzed 2012 National Incident Based Reporting System (NIBRS) data and found that 31% were the result of "responding to a disturbance." However, assaults resulting from disturbances were no more or less likely to result in officer injuries than assaults resulting from initiating arrests.

In a recent study of assaults on police, Bierie (2017) employed a case-control method in which he compared all assaults against police officers to a random sample of arrests wherein officers *were not assaulted* using NIBRS data from 2002 to 2010. Though not focused specifically on the dangerousness of domestic incidents relative to other incidents, this study significantly advanced our knowledge on the topic because the author was able to construct a meaningful denominator. Approximately 16% of the non-assault arrest sample involved a victim who was a family member, compared to 15% of the assault group. Similarly, about 33% of the non-assault arrest sample involved a victim who was a romantic partner, versus 24% of the assault group. Based on these differences and the results of a logistic regression model predicting the odds of an officer being assaulted, Bierie concluded "there are many other types of incidents which were just as dangerous for police officers or even more so…domestic violence was not

[2] Included in these data are state and local law enforcement officers, officers in corrections departments, federal agencies, and other regulatory commissions that do not routinely respond to calls for service or engage in independent enforcement or investigative activity.

unique and extraordinary relative to other types of calls for service" (p. 919). However, two limitations should be noted. First, victim-offender relationships were split into five dummy variables: *acquaintances, family members, romantic partners, multiple relations,* and *strangers.* The *multiple relations* group undoubtedly included incidents wherein some of the parties were family members or romantic partners, which muddles its comparison to the reference group (*strangers*). This coding scheme also precludes comparison of domestic incidents to those involving mere acquaintances. Second, and more important, the analysis was restricted to incidents resulting in an arrest. Yet, it is possible for officers to be assaulted during incidents that do not involve arrests being made – a point we will revisit when we discuss the implications of our own results.

With the exception of Bierie's (2017) study, the bulk of the extant literature has failed to consider the overwhelming majority of incidents (domestic or otherwise) that *did not* result in officer fatalities. According to Sherman (1992), police officers in the United States respond to millions of domestic incidents annually, making it one of the most common calls to which officers respond. This means that there are more opportunities for officers to be assaulted or killed responding to domestic incidents than many other types of incidents (e.g., robberies, "man with gun" calls). Consider the following example from another field. According to the National Highway Traffic Safety Administration, nearly 25,000 vehicle occupants died in traffic crashes in 2017. The same year, approximately 5,200 motorcyclists died in traffic crashes.[3] Focusing on these numerators, as Breul and Keith (2016) do in the case of officer deaths in the line of duty, would lead to the conclusion that automobiles are more dangerous than motorcycles. Of course, such a conclusion would be ludicrous. Automobiles far outnumber motorcycles on the road, and

[3] See https://www-fars.nhtsa.dot.gov/Main/index.aspx.

as such, are bound to outnumber motorcycles in traffic crashes. The critical question is whether automobiles are more likely than motorcycles to be involved in traffic crashes, given each vehicle's representation on the roads. The same logic applies to the study of assaults and fatalities among police officers. The question that must be asked is: are domestic incidents more dangerous to responding officers than non-domestic incidents, considering the frequency with which officers respond to each?

The Current Study

Taken together, it is clear that officers perceive domestic incidents to be particularly dangerous, and it is likely that their perceptions impact their actions when responding to these calls (e.g., DeJong et al., 2008; Hirschel & Dawson, 2011; Johnson, 2004; Logan et al., 2006). It is also clear that domestic incidents can indeed pose danger to officers, just as any other type of police-citizen interaction. To be sure, police-citizen interactions are unpredictable, and any type of interaction could ultimately result in injuries or fatalities to both officers and citizens. However, the key question is whether domestic calls are inherently *more* dangerous to responding officers than other types of police-citizen interactions. Much of the research concerned with the dangerousness of domestic incidents has suffered from the fundamental problem of attempting to "work backward" – summing injuries or deaths, categorizing them by call type, and concluding that because a large share of injuries and/or deaths result from domestic incidents, that domestic incidents are particularly dangerous. Such a methodology is problematic because it ignores the overwhelming majority of incidents – domestic and otherwise – that do not result in officer injury or death. Ultimately, we need to understand the relationship between domestic-related incidents and officer assaults, injuries, and/or deaths *in the context of all*

incidents. This is the only way to assess accurately whether domestic incidents are inherently more dangerous than other incidents.

Data and Methods

The current study uses data from the 2016 NIBRS to examine the relationship between domestic incidents and (1) officer assaults and (2) officer injuries, while controlling for other incident and agency characteristics. Launched by the Federal Bureau of Investigation (FBI) in 1989 to improve the quality of national crime data, NIBRS collects incident-level data concerning 52 offense classifications from law enforcement agencies – including detailed information about the offense(s), offender(s), and victim(s) involved (Akiyama & Nolan, 1999; Strom & Smith, 2017; Thompson, Saltzman & Bibel, 1999). In this way, NIBRS data provides much more detail than the Uniform Crime Report (UCR) Summary Reporting System, which collects limited data for ten Part I offenses, is bound by the Hierarchy Rule (i.e., only the most serious offense committed during a single incident is reported), and does not collect information about victim(s). Because of the analytic flexibility it offers, the FBI is discontinuing the UCR Summary Reporting System in 2021 and completely transitioning to NIBRS – a move endorsed by the International Association of Chiefs of Police (IACP, 2015; Strom & Smith, 2017).[4]

While NIBRS offers several advantages over the UCR, it is not without limitations. Most notable is its incomplete coverage of the United States. In 2016, roughly 37 percent of agencies (spanning 36 states) submitted data to NIBRS, whereas nearly 91% of agencies submitted at least partial-year data to the UCR.[5] While NIBRS participation has increased significantly over time – with the goal of full participation by 2021 – many agencies have yet to transition from the UCR. Additional limitations of NIBRS include its overrepresentation of southern agencies and

[4] For additional information about NIBRS, see https://www.fbi.gov/services/cjis/ucr/nibrs.
[5] See https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/resource-pages/cius-summary.

underrepresentation of larger cities (Addington, 2008; Chilton & Regoeczi, 2007; McCormack et al., 2017). Despite these limitations, the breadth of information collected by NIBRS permits us to explore questions about the dangerousness of domestic incidents to police officers, while the limited information collected by the UCR does not. Indeed, as Roberts (2009, p. 433) concluded in her review of the research utilizing NIBRS:

> The advantages of NIBRS over other official statistics such as the Uniform Crime Reports, Supplementary Homicide Reports, and the National Crime Victimization Survey have contributed to a better evaluation of a number of theoretical perspectives in criminology and criminal justice, and have helped in suggesting possible policy implications.

We revisit the limitations of NIBRS, and those of our study more specifically, in the conclusion of the paper.

In 2016, more than 6.1 million criminal incidents were logged by over 6,000 agencies representing 100 million residents from 36 states (NIBRS, 2016). In this study, we focus on the NIBRS incidents where the victim-offender relationship is known (n=1,051,927). NIBRS data are archived by the National Archive of Criminal Justice Data and available through the Inter-University Consortium on Political and Social Science Research. Available variables include offense type, the victim-offender relationship, incident time and location, weapon use, and victim injury, among others. This makes the data useful for understanding how crime event variables (e.g., incident type) are related to case outcomes (e.g., officer injury). Some recent studies have also used NIBRS data to explore assaults and injuries to officers (e.g., Barrick et al., 2018; Bierie et al., 2016; Bierie, 2017). Bierie et al. (2016), for example, compared 860 incidents involving firearm violence directed at police officers to a random sample of 3,000 arrests not involving firearm violence. Unfortunately, data limitations precluded the authors from classifying incidents

as domestic or non-domestic, making it impossible to surmise whether domestic incidents were more likely to involve firearm violence directed at police.

Independent Variable

For each of 1,051,927 incidents with a documented victim-offender relationship, NIBRS indicated the nature of this relationship for up to 10 victims and 3 offenders. For example, the victim and offender might be family members (e.g., spouses, siblings), acquaintances (e.g., friends, neighbors, co-workers), or strangers. We created a dichotomous variable – *domestic incident* – that indicated whether at least one victim and offender were either current/former intimate partners or relatives (1 = yes, 0 = no).[6] Roughly 53% of these incidents with information on victim-offender relationship were classified as domestic incidents (n = 558,124). Table 1 provides descriptive statistics for this and all other variables used in the analyses.

[Table 1 about here]

Dependent Variables

We utilized information from several fields in NIBRS to create the outcome measures. First, NIBRS identifies the "type" of up to three victims involved in each incident (i.e., individual, business, financial institution, government, law enforcement officer, religious organization, society/public, and other). Second, NIBRS includes the offense committed against up to 10 victims by as many as 3 offenders each. Finally, NIBRS specifies the injuries sustained by up to five victims – ranging from no injury to unconsciousness. We used this information to create two dichotomous variables: *officer(s) assaulted* and *officer(s) injured or killed.*

[6] In a sensitivity analysis, we restricted the sample to incidents involving murder/nonnegligent manslaughter, kidnapping/abduction, rape, sodomy, sexual assault with an object, robbery, aggravated assault, simple assault, or intimidation. The results were consistent with our primary, more inclusive models (see Appendix, Table A1).

Officer(s) assaulted was coded 1 if one or more of the victims was a police officer and the offense committed was any of the following: murder/nonnegligent manslaughter, negligent manslaughter, kidnapping/abduction, rape, sodomy, sexual assault with an object, robbery, aggravated assault, or simple assault.[7] Otherwise, this variable was coded 0. Approximately 1.1% of all incidents with information about victim-offender relationship involved an assault on a police officer (n = 11,685).

Officer(s) injured or killed was coded 1 if one or more of the victims was a police officer and sustained any injury, including: apparent minor injury, apparent broken bones, other major injury, possible internal injury, loss of teeth, severe laceration, or unconsciousness. Otherwise, this variable was coded 0 – with one exception. While creating this variable, we noticed that 25 police officers were listed as victims of murder/nonnegligent manslaughter but the injury fields for these officers were missing. We coded these incidents 1 so that our outcome reflected both nonfatal and fatal injuries to police officers. Less than 1% of all incidents with information about victim-offender relationship involved a nonfatal or fatal injury to a police officer (n = 4,827).

Controls

In our multivariate analyses, we controlled for several additional factors which may be related to whether officers were assaulted or injured. Bierie et al. (2016) found that incidents involving violent offenses and those involving weapons were associated with a significantly greater risk of firearm violence directed at officers. Similarly, studies suggest a positive correlation between an area's violent crime rate and violence against police (Fridell & Pate, 1995; Fridell et al., 2009; Kaminski et al., 2003). *Violent offense committed* was coded 1 if the

[7] A reviewer pointed out that cursing or spitting at an officer can result in a simple assault charge. In a sensitivity analysis, we recoded our first dependent variable so that simple assaults were in the "0" category. Results were substantively similar (see Appendix, Table A2).

UCR offense listed for any of up to three offenders was a violent crime (0 otherwise). *Weapon(s) involved* was coded 1 if any of the following weapons were involved in the incident: firearms, knives/cutting instruments, blunt objects, motor vehicles, poison, explosives, or fire/incendiary devices (0 otherwise). We also controlled for whether the officer(s) suspected the offender(s) of using alcohol or drugs/narcotics shortly before or during the incident (1 = *drugs/alcohol suspected*, 0 = otherwise), as both alcohol and drug use may increase the likelihood of officers being assaulted (Bierie, 2017; Covington et al., 2014).

Incident location may also be associated with assaults and/or injuries to officers. For example, Bierie et al. (2016) found that relative to incidents that occurred inside "buildings" (e.g., schools, diners, gas stations, offices), those that occurred outdoors, inside residences, on roads/highways/alleys, or in parking lots involved significantly greater risk of firearm violence. NIBRS includes 46 location types. Similar to Tillyer et al.'s (2011) study of victim injuries using NIBRS, we collapsed these 46 locations into two categories: semi-public/public or private. Semi-public locations are accessible to the public and typically have a place manager of some sort (e.g., bars, convenience stores, hotels). Public locations are open to the public and although they do not usually have a clear place manager, other individuals may be present (e.g., highways/roads/alleys, parking lots/garages). The increased likelihood of place managers or other potential witnesses being present in semi-public/public locations may influence the likelihood of offenders resisting or assaulting officers (Brantingham & Brantingham, 1995; Cohen & Felson, 1979). *Private setting* was coded "1" if any portion of the incident occurred inside of a residence or home and "0" if it strictly occurred in semi-public/public settings.

We controlled for time of day with a dummy variable (1 = *evening/night* [6PM to 5:59 AM], 0 = daytime [6AM to 5:59 PM]), as incidents occurring in the evening or night may pose a

greater threat to officers due to decreased visibility or increased likelihood of individuals being intoxicated. We also controlled for the number of victims and offenders involved with two categorical variables. *Number of victims* originally ranged from 0 to 147. Following Bierie (2017, p. 904), we truncated this variable at 5 to avoid bias resulting from high leverage, as less than 0.15% of all incidents involved more than 5 victims. Similarly, *number of offenders* originally ranged from 0 to 83, but we truncated it at 5 (less than 0.05% of all incidents involved more than 5 offenders). Prior research suggests police officers are more likely to be assaulted and/or injured by males (Bierie et al., 2016; Covington et al., 2004; Hirschel et al., 1994), so we controlled for the sex of the offender(s) with a dummy variable (1 = one or more *male offenders involved*, 0 = no male offenders involved). We also controlled for *mean offender age* and whether there were any *juvenile offenders involved* (1 = yes, 0 = no), as studies have demonstrated a correlation between offender age and assaults of police officers (Bierie, 2017; Bierie et al., 2016; Mustard, 2001).

Municipal agencies can differ from sheriff's departments and other agencies in terms of function, organizational context, training, and policies – which may affect their risk of being assaulted or injured (Falcone & Wells, 1995; Pate & Fridell, 1993; Willits, 2014). Accordingly, we controlled for the type of agency that reported the incident to NIBRS with two dummy variables: *sheriff's department* and *other agency* (includes university/college police, state police, special agency, other state agencies, and tribal agencies). *Municipal agency* serves as the reference category. Finally, we controlled for region of the United States with three dummy variables – *north central, south,* and *west* (*north east* is the reference category) – as prior research has uncovered regional variation in assaults (Wilson & Zhao, 2008) and felonious killings of police officers (Kaminski, 2008; Kent, 2010).

Analytic Strategy

Our analysis proceeded in three steps. First, we compared the means of our outcomes across domestic and non-domestic incidents using paired sample *t*-tests. Next, we examined the bivariate correlations among all of our study variables. Then, we estimated logistic regression models predicting each of our binary outcomes, *officer(s) assaulted* and *officer(s) injured or killed.* For this portion of the analysis, we first estimated baseline models, which included only the independent variable and an intercept term, and then estimated fully saturated models with each of our controls. We used robust standard errors clustered by agency to relax the assumption of independence of observations, since incidents were nested within agencies. Collinearity did not appear to be a problem in any of our models. None of the variance inflation factors exceeded 4.0 (mean VIF = 1.65) and the condition number was 19.43, well below conventional thresholds used to indicate potential multicollinearity (Tabachnick & Fidell, 2013).

Results

Table 2 displays the results of two *t*-tests that compared the means of our dependent variables in domestic incidents to their means in non-domestic incidents. Across both incident types, it should be noted that assaults on officers are the exception rather than the rule. Roughly 99% of all incidents examined here *did not* involve an officer being assaulted. Yet, whereas 2.11% of non-domestic incidents resulted in one or more officers being assaulted, just 0.23% of domestic incidents did ($t = 91.96$, $p < .0001$). In other words, non-domestic incidents were over nine times more likely to involve an assault on an officer than domestic incidents. Similarly, although only 0.81% of non-domestic incidents resulted in one or more officers being injured, this was more than five times the officer injury rate than when responding to domestic incidents (0.15%; $t = 50.33$, $p < .0001$).

[Table 2 about here]

These simple analyses demonstrate how critical it is to remember the benchmark. By considering assaults and injuries to officers relative to the universe of incidents that *did not* result in assaults and injuries, we can see clearly that domestic incidents were not more dangerous to officers than non-domestic incidents. Still, the relationships are worth exploring further. Would these differences remain so pronounced upon controlling for the potential confounding effects of other factors? Table 3 displays a correlation matrix that includes all of our study variables. The correlation between domestic incident and officer(s) assaulted was negative and statistically significant (Pearson's rho [ρ] = -.49, $p < .0001$), as was the correlation between domestic incident and officer(s) injured/killed (ρ = -.38, $p < .0001$). Furthermore, domestic incidents were negatively correlated with the commission of violent offenses (ρ = -.26, $p < .0001$), which itself was positively correlated with assaults (ρ = .05, $p < .0001$) and injuries (ρ = .10, $p < .0001$). Domestic incidents were also negatively correlated with presence of weapon(s) (ρ = -.28, $p < .0001$), which itself was positively correlated with assaults on officers (ρ = .03, $p < .0001$) but not injuries (ρ = -.01, $p < .05$). However, domestic incidents were positively correlated with suspected drug/alcohol use (ρ = .12, $p < .0001$), which was positively correlated with both assaults (ρ = .25, $p < .0001$) and injuries (ρ = .23, $p < .0001$). Unsurprisingly, domestic incidents were more likely to occur in private settings (ρ = .63, $p < .0001$). Both assaults (ρ = -.34, $p < .0001$) and injuries (ρ = -.28, $p < .0001$) to officers were less likely to occur during incidents that took place in private settings. To this point, our analyses suggest conventional wisdom runs counter to the available data: domestic incidents appear to present *less* danger to officers than non-domestic incidents using the measures of danger examined here.

[Table 3 about here]

The last step of our analysis involved a series of logistic regression models predicting our outcomes. The results are presented in Table 4. In Model 2, we found that upon controlling for several other characteristics of the incidents and the parties involved, the odds of a domestic incident resulting in an officer being assaulted were roughly 89% less likely than the odds of a non-domestic incident resulting in an officer being assaulted (odds ratio [OR] = .107, $p < .0001$). As a whole, Model 2 better predicts assaults on officers than Model 1 (Pseudo $R^2 = .207$). The presence of one or more weapons was negatively associated with assaults on officers (OR = .530, $p < .0001$), whereas suspected drug/alcohol use by the offender(s) was positively associated with assaults on officers (OR = 3.237, $p < .0001$). Incidents occurring in private locations (i.e., residences/homes) were significantly less likely than those occurring in semi-public or public locations to involve assaults on officers (OR = .455, $p < .0001$). Incidents occurring during the evening/nighttime were significantly more likely to involve assaults on officers than those occurring during the daytime (OR = 1.216, $p < .0001$). On the one hand, as the number of *victims* involved increased, so too did the odds of officers being assaulted (OR = 2.300, $p < .0001$). On the other hand, as the number of *offenders* involved increased, the odds of officers being assaulted decreased significantly (OR = .418, $p < .0001$). Relative to incidents involving no male offenders, those involving one or more male offenders were significantly less likely to involve officers being assaulted (OR = .797, $p < .0001$). Mean offender age was significantly inversely associated with assaults on officers, but the size of the effect was small (OR = .993, $p < .0001$). The involvement of one or more juvenile offenders was associated with lower odds of officers being assaulted (OR = .556, $p < .0001$). We also found that sheriff's deputies (OR = 1.291, $p < .01$) and officers working for other types of agencies (OR = 1.789, $p < .0001$) were significantly more likely to be assaulted than municipal officers. Lastly, Model 2 indicates significant regional

differences, with officers working in the north central, southern, and western regions of the United States significantly less likely to have been assaulted than those in the north east.

[Table 4 about here]

In Model 4 of Table 4, we found that the odds of a domestic incident resulting in an officer being injured or killed were approximately 81% less likely than the odds of a non-domestic incident resulting in an officer injury or death (OR = .189, $p < .0001$). Again, the Pseudo R^2 improved from Model 3 (.044) to Model 4 (.171), suggesting the addition of our control variables increases model fit. All of the other coefficients run in the same direction as in Model 2, although one difference should be noted with respect to statistical significance. Incidents involving one or more violent crimes were significantly more likely to result in officer injuries/fatalities than non-violent incidents (OR = 1.553, $p < .0001$). Recall that violent incidents were not significantly more likely to result in assaults on officers than nonviolent incidents (see Model 2). With these findings in mind, we now turn to a discussion of their practical implications and directions for future research.

Discussion

The controversy over the dangerousness of domestic incidents to officers has been ongoing for decades. It is especially significant considering officers across the country respond to hundreds of thousands of domestic-related incidents each year (NIBRS, 2016), if not more (Sherman, 1992). Extant research has highlighted that officers often hold perceptions about risk of harm in responding to these incidents; it is logical to assume that such perceptions have implications for officer responses to these incidents (MacDonald et al., 2003; see also Richardson et al., 2019). This study considered the dangerousness of domestic-related incidents to officers by examining assaults and injuries to officers in light of *all incidents to which police*

respond. Considering the universe of incidents to which officers respond – as opposed to only focusing on those resulting in an assault or an injury to police officers – better addresses the question about the dangerousness of domestic incidents to police. We highlight our main findings below.

First, our findings underscore the rarity of assaults and injuries to police officers. These outcomes are fortunately the exception rather than the rule when officers respond to incidents. According to NIBRS data, only 1% of incidents wherein the victim-offender relationship was documented (domestic or otherwise) involved an officer being assaulted. Only about half of all assaults resulted in an injury to an officer, most of which were minor. Considering that officers respond to millions of incidents per year, these numbers emphasize the rarity of officer injury.

Second, we found that in 2016, domestic calls were *not* more dangerous than non-domestic calls for service. When comparing assaults and injuries to officers in domestic-related incidents to non-domestic incidents, we found that officers were *less* likely to be assaulted or injured in domestic incidents. Not controlling for other confounders, non-domestic incidents were nine times more likely to involve an assault on an officer, and five times more likely to involve officer injury. Furthermore, when controlling for other factors that may be related to the odds of an officer being assaulted or injured, we found that domestic incidents were associated with a lower risk of harm to police. In fact, officers were 89% more likely to be assaulted in non-domestic incidents and 81% more likely to be injured or killed when responding to a non-domestic incident than when responding to a domestic incident.

Third, the results of this study underscore the importance of selecting an appropriate benchmark to make sense of observed outcomes of interest, like assaults and/or injuries to officers. The findings support recent research suggesting that the danger of domestic-related

incidents to officers is not as great as previously believed (see, e.g., Bierie, 2017). We maintain that comparing what happens to officers during domestic incidents to what happens to them in *all* incidents is the most appropriate way to gauge the inherent dangerousness of domestic incidents. Only focusing on those incidents in which officers are assaulted, injured, or killed excludes the majority of officer-citizen interactions – those in which the officer(s) are *not* assaulted, injured, or killed. When comparing against the entire population of incidents, our results suggest domestic incidents are not the most dangerous incidents to which police respond.

Understanding the objective danger that domestic-related incidents pose to officers is critical, as it can help inform officer perceptions about this call type and policies for responding. Current perceptions regarding the danger of domestic incidents surely impacts officer behavior when responding to those incidents. For example, if officers perceive domestic incidents as especially dangerous, they may be more on edge or aggressive when they arrive on scene (Stanford & Mowry, 1990). Alternatively, they might approach these incidents with more caution or care (MacDonald et al., 2003; Uchida et al., 1987). Additional precaution taken by officers might explain why both of our outcomes were negatively associated with weapons and the presence of male offenders. In either case, officer perceptions surely affect the dynamics of police-citizen interactions and perhaps even the victim's future safety. For instance, research has demonstrated that among victims of domestic violence, victim dissatisfaction with law enforcement response to calls for service is related to a reduced likelihood of reporting subsequent violence to law enforcement (Buzawa & Hotaling, 2006). If officers understood the realities of these calls, how might their responses change? Officer behavior is vital in securing victim trust and cooperation (Murphy & Barkworth, 2014; Wolfe et al., 2016). It is possible that

perceiving these domestic situations as less dangerous – as the data suggests – could be a first step in improving these police-citizen interactions.

Given that our study challenges conventional wisdom, agencies and training academies might consider awareness campaigns or similar interventions to destigmatize domestic incidents. These could involve presenting officers with more accurate statistics about the likelihood of being assaulted or injured on a domestic call. Interventions aimed at reducing the stigma of other aspects of police work have shown promise. For example, in Sweden, police cadets who participated in an intervention meant to reduce the stigma associated with mentally ill persons (i.e., a series of lectures and videos) displayed increased open mindedness and willingness to work with them, with effects persisting at the six-month follow-up (Hansson & Markström, 2014). Similar findings have been observed in the United States among officers who participated crisis intervention team training (Compton et al., 2006; Wells & Schafer, 2006). The effects of such training programs may increase victim satisfaction, as well. In El Monte, California, officers who had undergone 56 hours of crisis intervention training were rated more favorably by citizens, who described them during follow-up phone interviews as less pushy, more reassuring, and more competent than officers who were not trained (Pearce & Snortum, 1983, p. 86). Whatever form a similar intervention aimed specifically at reducing the stigma of domestic incidents takes, the challenge will be to strike an appropriate balance. Officers should be prepared for the reality that they could be assaulted at any time when interacting with people, but they should understand that it is exceedingly rare, and not more prone to occur during domestic incidents. Of course, it will be vital to evaluate the effects of such training.

Limitations and Directions for Future Research

In a recent report by the COPS Office and NLEOMF, Breul and Keith (2016) suggest "the necessity of having three or more officers at a domestic situation to adequately separate parties, monitor family members and, if necessary, physically restrain and arrest a suspect, is apparent" (p.16). The results presented here suggest that such an expenditure of finite resources may be ill-advised. However, in light of data limitations, we cannot rule out the possibility that such precautionary tactics are common and partially responsible for domestic incidents having the lower assault and injury rates we observed. Data that permit researchers to replicate our models with different samples and additionally code for how incidents were dispatched (e.g., whether officers were told the involved parties were intimate partners or family members) would be valuable in this regard. Similarly, future work should attempt to control for whether officers responded to incidents alone or with backup. Currently in NIBRS, this is only possible when incidents resulted in an officer being assaulted (less than 1% of all incidents).

Although we controlled for multiple covariates associated with incident danger in the current study (e.g., weapons, drug/alcohol use, violence, offender characteristics), information about other relevant factors such as officer training, experience, or officers' use of technology such as body armor were not available for analysis. Further, incident characteristics such as offender and/or victim behavior toward responding officers remain "unknowns." Including such variables in future studies would enhance our understanding of the dangerousness of domestic incidents to police officers. Additionally, our analyses did not examine officer risk within domestic incident type. It is possible that certain types of domestic offenders are inherently more dangerous to officers (Bierie, 2017), but our analyses did not capture variation within the domestic incident. Finally, we need a better understanding of *why* officers perceive domestic

incidents as especially dangerous, what (if anything) they do differently upon arrival at these incidents, and the factors associated with said beliefs and behaviors. Survey research would be useful in these regards, and would permit theory testing and development. These are just a few additional avenues for future research to consider.

Changes in data collection would assist in better understanding the harm officers face when responding to different incidents. Currently, NIBRS instructs law enforcement agencies to complete data on the officer activity type (e.g., responding to a traffic incident, responding to a disturbance) associated with a crime incident only when an officer is assaulted or injured. A simple change in instruction – to complete this data field for all incidents – would greatly improve research on officer wellness in the field. Furthermore, there is currently no field in NIBRS that indicates whether an officer was actually dispatched to an address for each incident. Having restricted our analysis to incidents where the victim-offender relationship was documented, we believe it is reasonable to assume the majority of the incidents we have analyzed did in fact involve an officer physically responding to an address, but we cannot be 100% certain. One alternative would be to restrict our analyses to arrest scenarios (see e.g., Bierie, 2017), but this would be too limited in scope, as an officer need not arrest someone in order to be assaulted or injured. According to NIBRS, in 2016, there were 1,605 *non-arrest* incidents that involved a police officer being assaulted. This amounts to nearly 12% of all assaults reported to NIBRS in 2016. As important, restricting the sample to arrests would ignore thousands of incidents wherein officers were not assaulted. As we have demonstrated, these counterfactual incidents are critical to our understanding of trends in assaults on officers – including whether domestic incidents are inherently more dangerous than other incidents. Moving forward, and as NIBRS coverage continues to expand, it would behoove agencies to

document whether recorded incidents actually involved an officer responding and interacting with a victim, witness, and/or suspect. Otherwise, determining with certainty the universe of incidents where officers could have been assaulted is not possible.

Conclusion

Overall, our study has provided key insight into the dangerousness of responding to domestic incidents. The findings indicate that domestic incidents are not as dangerous as previously thought – with officers responding to non-domestic incidents having much higher likelihoods of both assault and injury/death than officers who respond to domestic incidents. Further, we maintain that these results are more accurate than much of the findings from prior research on this topic because they take into account all incidents instead of a select few. We hope that these findings spark additional research in this area.

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Table 1. Descriptive Statistics (N = 1,051,927 unless otherwise noted).

Variable	Mean	Std. Dev.	Range
Domestic incident	.531	—	0 – 1
Officer(s) assaulted	.011	—	0 – 1
Officer(s) injured/killed	.005	—	0 – 1
Violent offense committed	.226	—	0 – 1
Weapon(s) involved*	.138	—	0 – 1
Drugs/alcohol suspected	.130	—	0 – 1
Private setting	.649	—	0 – 1
Evening/night*	.518	—	0 – 1
Number of victims	1.225	.553	0 – 5
Number of offenders	1.167	.496	0 – 5
Male offender(s) involved*	.713	—	0 – 1
Mean offender age*	32.648	13.479	1 – 99
Juvenile offender(s) involved*	.112	—	0 – 1
Municipal agency (Reference)	.746	—	0 – 1
Sheriff's department	.223	—	0 – 1
Other agency	.032	—	0 – 1
North east (Reference)	.087	—	0 – 1
North central	.328	—	0 – 1
South	.417	—	0 – 1
West	.168	—	0 – 1

* *Weapon(s) involved N* = 859,457; *Evening/night N* = 1,026,035; *Male offenders involved N* = 1,050,230; *Mean offender age N* = 1,021,171; *Juvenile offender(s) involved N* = 1,023,848.
NOTE: For binary variables, the mean represents the proportion of cases that fall into the "1" category, which is reflected by the variable's name.

Table 2. Officer(s) assaulted and injured/killed, domestic v. non-domestic incidents (N = 1,051,927).

Outcome	Domestic (n = 558,124)	Non-domestic (n = 493,803)	*t* – test
Officer(s) assaulted	0.23%	2.11%	91.96***
Officer(s) injured/killed	0.15%	0.81%	50.33***

*** $p < .0001$

Table 3. Correlation Matrix (N = 816,423).

Variable		Y_1	Y_2	X_1	X_2	X_3	X_4	X_5	X_6	X_7*	X_8*	X_9	X_{10}*	X_{11}	X_{12}	X_{13}	X_{14}	X_{15}	X_{16}
Y_1	Officer(s) assaulted	—																	
Y_2	Officer(s) injured/killed	1.00	—																
X_1	Domestic incident	-.49	-.38	—															
X_2	Violent offense committed	.05	.10	-.26	—														
X_3	Weapon(s) involved	.03	-.01	-.28	.94	—													
X_4	Drugs/alcohol suspected	.25	.23	.12	.00	-.02	—												
X_5	Private setting	-.34	-.28	.63	-.13	-.16	.11	—											
X_6	Evening/night	.05	.05	.09	.04	.05	.37	.12	—										
X_7	Number of victims*	.11	.09	-.08	.10	.18	.05	-.06	.01	—									
X_8	Number of offenders*	-.01	-.01	-.15	.09	.10	-.02	-.10	.02	.35	—								
X_9	Male offender(s) involved	-.01	-.01	-.02	.18	.07	.05	-.03	.03	-.10	-.22	—							
X_{10}	Mean offender age*	-.01	-.01	.09	-.02	.00	.11	.12	.05	-.05	-.10	.04	—						
X_{11}	Juvenile offender(s) involved	-.04	-.04	-.29	-.08	-.12	-.45	-.28	-.27	.02	.07	-.05	-.48	—					
X_{12}	Sheriff's department	-.01	.00	.09	-.06	-.06	.05	.14	-.01	.01	-.01	.00	.04	.03	—				
X_{13}	Other agency	.16	.11	-.12	.02	-.03	-.02	-.16	-.03	.01	.01	.02	.00	.02	-1.00	—			
X_{14}	North central	-.19	-.14	-.09	.03	.01	.08	.04	.03	-.05	-.01	.03	-.02	.02	-.22	-.02	—		
X_{15}	South	.00	-.02	.10	-.06	.03	-.06	.06	-.01	.03	.05	-.05	.00	-.01	.36	.13	-1.00	—	
X_{16}	West	.07	.11	-.02	.04	-.05	.00	-.10	-.01	.10	-.03	.04	.01	-.01	-.02	-.25	-1.00	-1.00	—

NOTE: All entries are tetrachoric correlation coefficients unless otherwise noted.
* Pearson's correlation coefficients.

Table 4. Logistic Regression Models Predicting Officer Assaults and Injuries.

	DV: Officer(s) Assaulted				DV: Officer(s) Injured/Killed			
	Model 1		Model 2		Model 3		Model 4	
	OR	SE	OR	SE	OR	SE	OR	SE
Domestic incident	.107***	.005	.105***	.005	.180***	.010	.189***	.011
Violent offense committed	—		1.010	.070	—		1.553***	.109
Weapon(s) involved	—		.530***	.030	—		.302***	.021
Drugs/alcohol suspected	—		3.237***	.145	—		2.962***	.150
Private setting	—		.455***	.015	—		.496***	.022
Evening/night	—		1.216***	.037	—		1.158**	.044
Number of victims	—		2.300***	.038	—		2.468***	.042
Number of offenders	—		.418***	.016	—		.452***	.023
Male offender(s) involved	—		.797***	.022	—		.796***	.028
Mean offender age	—		.993***	.001	—		.989***	.001
Juvenile offender(s) involved	—		.556***	.029	—		.550***	.039
Municipal agency (Ref.)	—		—		—		—	
Sheriff's department	—		1.291*	.116	—		1.266*	.112
Other agency	—		1.789**	.268	—		1.429*	.183
North east (Ref.)	—		—		—		—	
North central	—		.232***	.034	—		.365***	.055
South	—		.502***	.068	—		.615**	.085
West	—		.511***	.065	—		.773^{+}	.102
Intercept	.022***	.001	.080***	.009	.008***	.000	.020***	.003
Wald χ^2	1,930.918***		13,255.511***		898.413***		9,993.368***	
Pseudo R^2	.073		.207		.044		.171	
N	1,051,927		816,423		1,051,927		816,423	

Note: Entries are odds ratios and robust standard errors clustered by agency.
$^{+}$ $p < .05$, * $p < .01$, ** $p < .001$, *** $p < .0001$

Appendix A: Sensitivity Analyses

Table A1. Sensitivity Analysis: Sample restricted to incidents involving violent offenses, simple assaults, or intimidation.

	DV: Officer(s) Assaulted				DV: Officer(s) Injured/Killed			
	Model 1		Model 2		Model 3		Model 4	
	OR	SE	OR	SE	OR	SE	OR	SE
Domestic incident	.106***	.005	.102***	.005	.178***	.010	.185***	.010
Violent offense committed	—		.956	.066	—		1.478***	.104
Weapon(s) involved	—		.534***	.030	—		.303***	.021
Drugs/alcohol suspected	—		3.199***	.144	—		2.925***	.148
Private setting	—		.463***	.015	—		.504***	.023
Evening/night	—		1.202***	.036	—		1.145***	.044
Number of victims	—		2.297***	.038	—		2.467***	.042
Number of offenders	—		.413***	.016	—		.448***	.023
Male offender(s) involved	—		.831***	.023	—		.825***	.029
Mean offender age	—		.993***	.001	—		.989***	.001
Juvenile offender(s) involved	—		.576***	.030	—		.570***	.040
Municipal agency (Ref.)	—		—		—		—	
Sheriff's department	—		1.296*	.117	—		1.270*	.113
Other agency	—		1.828***	.273	—		1.453*	.187
North east (Ref.)	—		—		—		—	
North central	—		.235***	.034	—		.369***	.056
South	—		.502***	.068	—		.616**	.085
West	—		.519***	.066	—		.785	.103
Intercept	.022	.001***	.081***	.010	.008***	.001	.020***	.003
Wald χ^2	1,933.872***		12,765.521***		904.193***		9,689.634***	
Pseudo R^2	.074		.209		.045		.171	
N	1,018,857		791,798		1,018,857		791,798	

Note: Entries are odds ratios and robust standard errors clustered by agency.
* $p < .01$, ** $p < .001$, *** $p < .0001$

Table A2. Sensitivity analysis: Dependent variable "Officer(s) assaulted" recoded so that simple assaults = 0.

	DV: Officer(s) Assaulted (excluding simple assaults)			
	Model 1		Model 2	
	OR	SE	OR	SE
Domestic incident	.136***	.009	.177***	.012
Violent offense committed [a]	—		—	
Weapon(s) involved	—		3.001***	.180
Drugs/alcohol suspected	—		2.580***	.145
Private setting	—		.489***	.025
Evening/night	—		1.083	.045
Number of victims	—		2.110***	.037
Number of offenders	—		.507***	.025
Male offender(s) involved	—		.847***	.038
Mean offender age	—		.997^{+}	.002
Juvenile offender(s) involved	—		.493***	.043
Municipal agency (Ref.)	—		—	
Sheriff's department	—		1.667***	.177
Other agency	—		1.793***	.276
North east (Ref.)	—		—	
North central	—		.317***	.046
South	—		.539***	.078
West	—		.954	.135
Intercept	.006***	.000	.009***	.001
Wald χ^2	859.527***		9,582.135***	
Pseudo R^2	.052		.190	
N	1,051,927		816,423	

Note: Entries are odds ratios and robust standard errors clustered by agency.
$^{+}$ $p < .05$, * $p < .01$, ** $p < .001$, *** $p < .0001$
[a] Upon recoding the DV by putting simple assaults in the "0" category, there were only 8 incidents involving an assault on an officer in the "0" category of *violent offense committed*, making the coefficient for this variable unstable. As such, we omitted it for the purposes of this sensitivity analysis.