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Challenging the Narrative of Self-Defense in Police Operations: Bulacan Province under Duterte's War on Drugs

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Abstract

This working paper examines the Philippine National Police's (PNP) use of deadly force in Bulacan province during President Rodrigo Duterte's War on Drugs, a period during which Bulacan became one of the most lethal zones of police activity. Drawing on a uniquely detailed dataset of police operations from 2015 to 2018, the study assesses whether official narratives of self-defense hold under empirical scrutiny. It introduces a "top-down" methodology for evaluating excessive deadly force, using indicators such as lethality ratios and police victimization rates. The findings reveal a dramatic escalation in police killings, with nearly no suspects wounded and minimal police casualties, suggesting that many purported armed encounters were in fact extrajudicial executions. Situating these findings in international context, the study compares Bulacan with over 30 national and subnational jurisdictions across all continents and finds it to be among the most extreme global outliers. These patterns point to a systemic practice of excessive fatal force driven by signals from national leadership, rather than isolated acts of misconduct. This research complements case-based human rights approaches by offering a scalable empirical strategy to assess systemic police violence. It demonstrates how detailed national or subnational data can reveal broader patterns of abuse and challenge official narratives of justified force, even in the absence of sufficient qualitative evidence on individual encounters and in contexts of widespread impunity.

Zusammenfassung

Dieses Arbeitspapier untersucht den Einsatz tödlicher Gewalt durch die philippinische Polizei in der Provinz Bulacan während des Drogenkriegs unter Präsident Rodrigo Duterte, eine Phase, in der Bulacan zu einer der tödlichsten Zonen polizeilicher Aktivität wurde. Anhand eines einzigartig detaillierten Datensatzes zu Polizeieinsätzen von 2015 bis 2018 prüft die Studie, ob die offiziellen Narrative der Notwehr einer empirischen Überprüfung standhalten. Sie führt eine „Top-down“-Methodologie zur Bewertung exzessiver tödlicher Gewalt ein, gestützt auf Indikatoren wie das Verhältnis von Getöteten zu Verwundeten sowie die Rate der polizeilichen Opfer. Die Ergebnisse zeigen eine dramatische Eskalation tödlicher Polizeigewalt, mit kaum verwundeten Verdächtigen und nur minimalen Verlusten auf Seiten der Polizei, was darauf hindeutet, dass viele der angeblichen bewaffneten Auseinandersetzungen in Wirklichkeit außergerichtliche Hinrichtungen waren. In einem internationalen Vergleich wird Bulacan mit über 30 nationalen und subnationalen Einheiten auf allen Kontinenten verglichen. Dabei zeigt es sich als einer der extremsten Ausreißer weltweit. Die Befunde deuten auf eine systemische Praxis exzessiver Anwendung tödlicher Gewalt hin, die nicht auf individuelles Fehlverhalten, sondern auf Signale der nationalen Führung zurückzuführen ist. Diese auf dem systematischen Vergleich großer Fallzahlen basierte Forschung ergänzt Ansätze, die über detaillierte Analysen von Einzelfällen breitere Muster nachzuweisen versuchen, mit einer skalierbaren empirischen Strategie zur Bewertung systemischer Polizeigewalt auf der Basis großer Fallzahlen. Sie zeigt, wie detaillierte nationale oder subnationale Daten umfassendere Muster von Machtmissbrauch sichtbar machen und offizielle Narrative über gerechtfertigte Gewaltanwendung infrage stellen können – selbst bei fehlender qualitativer Evidenz auf Einzelfallebene und unter Bedingungen weitreichender Straflosigkeit.

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LIST OF ABBREVIATIONS

EMPO	Enhance Managing Police Operation
IAS	Internal Affairs Service of the Philippine National Police
ICC	International Criminal Court
OIS	Officer Involved Shooting
OTP	Office of the Prosecutor (of the International Criminal Court)
PNP	Philippine National Police
WoD	War on Drugs

1. INTRODUCTION: POLICE USE OF DEADLY FORCE IN A DRUG WAR – EXCESSIVE OR NOT

During Rodrigo Duterte’s presidency (July 2016 to June 2022), the Philippine National Police (PNP) killed over 6,000 people in operations tied to the President’s declared War on Drugs (WoD). Adjusted for population this is roughly three times higher than the rate in the United States (Washington Post, no year). Police reports commonly claim that suspects, at some point during the anti-drug operation, realized they were confronting police officers, drew their weapons, and opened fire – prompting officers to respond in self-defense. As a results, these deaths were officially attributed to the justified use of deadly force in life-threatening situations.

Unlike most countries where high levels of police use of deadly force reflect a long standing-pattern or a gradual escalation, the sharp increase under Duterte did not stem from a violent past nor did it unfold over time. Instead, it began abruptly on his very first day in office. Prior to the War on Drugs, civilian deaths in armed encounters – henceforth referred to as Officer-Involved Shootings (OIS) – were relatively low, averaging between 200 to 300 per year and were largely unrelated to drug enforcement operations.

The main reason for the increase in deaths and the high proportion linked to drug operations is that, under Duterte, the police launched a rigorous campaign targeting both street-level and high-value targets from the outset. This campaign, known as “Double Barrel,” continued in various forms throughout his presidency. The official justification for the rise in fatalities is that the large-scale shift in police efforts toward aggressively combating the drug trade at all levels would inevitably result in more armed confrontations and use of deadly force. This should not be interpreted as a government policy or police practice that condones excessive force or extrajudicial killings.

While media outlets and human rights organizations documented numerous cases in which witness accounts contradicted police reports, neither the PNP’s Internal Affairs Service (IAS) nor state prosecutors-initiated investigations – despite having both the authority and obligation to do so. As a result, the police continue to deny any excessive use of deadly force during the War on Drugs, attributing the few undisputable cases to individual misconduct.

In October 2016, just four months into the campaign, International Criminal Court (ICC) prosecutor Fatou Bensouda expressed serious concern over the high number of killings of suspected drug dealers and users. She announced that the ICC Office of the Prosecutor (OTP) would closely monitor developments to determine whether to open a preliminary examination, which it eventually did in February 2018. On March 7, 2025, the ICC issued an arrest warrant for former President Duterte for the crime against humanity of murder. This was based on “material submitted by the Prosecution” concerning the deaths of 19 individuals, allegedly killed by the Davao Death Squad (DDS) during Duterte’s tenure as mayor of Davao City, and 24 individuals “killed by or under the supervision of members of

the Philippines' law enforcement" (International Criminal Court 2025: 7-8). The ICC found reasonable grounds to believe Duterte bore responsibility for these killings both as mayor and later as President (International Criminal Court 2025: 8-13). A few days later, the former President was arrested in the Philippines and extradited to the ICC.

The OTP has adopted a strategy similar to that of media and human rights organizations: extrapolating a broader pattern from a small number of cases with sufficient detail to seriously challenge official police claims that killings occurred in self-defense. This approach, however, is not without complications.

The official operational plan for the War on Drugs, "Double Barrel," contains numerous references to human rights and due process, which the police are formally required to uphold. Thus, on the one hand, there is a limited number of well-documented cases; on the other, there is a formal policy framework that explicitly mandates respect for individual rights. Within this context, the OTP must demonstrate that the killings were not isolated violations of official policy committed by rogue officers or small units, but part of a broader, systemic campaign initiated by the country's chief executive.

This paper¹ proposes an alternative method for assessing whether – and to what extent – police use of force is excessive, and whether such excess stems from the misconduct of individual officers or should be interpreted as a systemic issue rooted in subservience to signals from central political or police authorities.

This approach, which applies a large-n qualitative analysis, is intended to complement the existing "bottom-up" strategies by offering a "top-down" perspective. Together, these approaches represent a form of data and method triangulation, aimed at enhancing the credibility and robustness of the analysis. By drawing on different types of data and analytical methods, each approach compensates for the limitations of the other. Triangulation, in this context, can either expose biases or weaknesses in individual approaches and datasets, or reinforce findings when results from different methods and data sources converge or complement one another.

Taken together, the two perspectives enable a more precise and valid evaluation of the appropriateness of police use of deadly force. While the OTP strategy relies on extrapolating broader patterns from a small number of well-documented cases, the method proposed here starts with a large number of cases and identifies the dominant characteristics that drive the majority of them. Both approaches are inductive in nature. They begin with specific observations and draw general conclusions, but they rely on distinct types of data. By combining the two, the analysis gains greater depth and rigor, resulting in a more comprehensive and reliable assessment of the underlying question: the extent to which police use of deadly force can be considered appropriate.

This paper will introduce the "top-down" approach and apply it to the Philippine province of Bulacan, using it as an illustrative example to demonstrate the approach's ability to independently identify excessive use of deadly force.

This method is based on earlier research by the author and others (Chevigny 1990, 1995, Kreuzer, 2016, 2018a, 2018b, 2019; Cano 2022a, 2022b, Lethal Force Monitor various years). It begins with a large set of cases where police used deadly force, examining the relationships between specific aspects in these encounters to determine whether the use of force was appropriate or excessive. Key aspects include the number of suspects killed

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and wounded, as well as the number of police officers killed and wounded. In combination with other data, these factors help establish indicators that provide crucial insights into the overall set of Officer Involved Shootings (OIS).

Two questions guide the analysis: First, did the police face a real threat during the OIS that would justify the use of deadly force? Second, did the police exhibit a tendency to shoot-to-kill, or did they attempt to minimize the use of potentially fatal force?

By analyzing a large number of cases, we can draw clearer conclusions about these questions regarding threat and lethality. Lethality rates can be derived by comparing the number of suspects wounded to those killed in OIS incidents, while the level of threat experienced by the police can be assessed by comparing the number of suspects killed to the number of police officers killed.

Given the focus on a specific aspect of policing – anti-drug operations – additional factors, such as the type of operation, can be incorporated. The environment in which the police operate can also be factored in by considering the homicide rate, which helps control for temporal and spatial variations in environmental threat and tests the hypothesis that police use of force is significantly influenced by the levels of violence in their surroundings.

This method enables the creation of both a temporal and spatial map of indicators related to police use of deadly force. Together, these factors provide a solid foundation for assessing whether police use of deadly force is appropriate, slightly excessive, or highly excessive, and whether such excess is the result of individual failure or systemic issues. While this strategy cannot definitively determine whether individual instances of deadly force were excessive or involved targeted killings, it serves as a valuable complement to efforts aimed at gathering sufficient evidence for individual cases.

The following study will apply this analysis to Bulacan province in the Philippines, utilizing extensive official data on thousands of police operations sourced from the provincial police homepage.² The selection of Bulacan is both convenient and appropriate: on one hand, it is one of the subnational units with high levels of killings related to anti-drug operations, making it suitable for large-n analysis; on the other hand, it is the only subnational unit for which such comprehensive data on police operations, both before and during the War on Drugs, are available. To establish a baseline and enable temporal comparisons, data from the 18 months prior to Duterte's presidency, as well as the first 24 months of Bulacan PNP operations during Duterte's War on Drugs were coded.³

Since Bulacan is the only province with such a dataset, a within-country comparison could not be conducted. However, a broader dataset, encompassing more than 30 national and subnational units from all continents, was established,⁴ containing information on most or all of the variables mentioned above. This allows the Bulacan case to be situated within a global continuum of police forces with varying levels of violence.

The paper begins with a brief overview of Bulacan province and police regulations on the use of force. It then presents the analytical framework applied in the Bulacan case study, followed by an analysis of police use of deadly force in Bulacan before and during the War on Drugs. This analysis focuses on buy-bust operations, which were the dominant type of anti-drug operation and accounted for most of the suspects killed in drug-related police actions. The paper also examines additional factors that influence Bulacan police use of deadly force beyond these operations. Next, the Bulacan data are contextualized within an

2 No longer online since Spring 2024, but older versions available at archive.org

3 For more detail on this dataset and the coding see the Appendix.

4 For more detail on this dataset and the sources utilized in its establishment see the Appendix.

international framework by comparing them with data from more than 30 other national and subnational police forces. Finally, the study analyzes the direct impact of national factors on the patterns observed in Bulacan, to determine, whether local or national factors account for the violence observed in Bulacan during the War on Drugs.

2. THE PROVINCE OF BULACAN AND CORE REGULATIONS GOVERNING PNP USE OF DEADLY FORCE

Bulacan is a Philippine province situated immediately north of the National Capital Region (NCR). It is characterized by a high population density compared to most other provinces. The province's population grew from approximately 3.3 million in 2015 to 3.7 million in 2020.⁵ Police strength at the three cities and 21 municipalities of the province stood at below 1,400 in 2015, or an average of less than 42 per 100,000 population (Department of Trade and Industry no year).

During the War on Drugs, Bulacan recorded the highest absolute number and rate of suspects killed by police in drug-related operations among provinces. As mentioned, this high level of OIS is accompanied by a long-standing wide-ranging transparency in reporting on police operations and actions. Bulacan PNP is the only police force that reported on its activities in much detail, including regular detailed reports on operations that resulted in the death of suspects, which were presented in a matter-of-fact way as success of law enforcement.

Consistently, these reports assert that during armed encounters, the suspects initiated the confrontations, compelling police operatives to act in self-defense. This claim is crucial as it aligns the specific decisions to use potentially lethal force with the formal requirements for police use of force, as outlined in the Philippine National Police (PNP) Operational Procedures (Philippines National Police 2013), and thus establishes a narrative of a police-force only resorting to fatal force in situations of self-defense.

The relevant sections in the respective police procedures to which these presentations implicitly refer to are Rule 7 "Use of Force during Police Operations" and Rule 8 "Use of Firearm During Police Operations." Rule 7 prohibits excessive use of force during police operations. Rule 8 specifies that firearm use is justified only:

"if the offender poses imminent danger of causing death or injury to the police officer or other persons. The use of firearm is also justified under the doctrines of self-defense, defense of a relative, and defense of a stranger. However, one who resorts to self-defense must face a real threat on his life, and the peril sought to be avoided must be actual, imminent and real. Unlawful aggression should be present for self-defense to be considered as a justifying circumstance."

Given that typically both before and during the Duterte War on Drugs, there was only one-sided evidence on OIS provided in the reports of the police, in all but a few, where countervailing evidence is available, it is impossible to assess on a case basis, whether the claims of self-defense are plausible.

The following section will introduce a methodological alternative, which, given the availability of detailed police reports for Bulacan, can be applied providing an alternative assessment based on large-n case analysis.

⁵ For core data on Bulacan see <https://www.philatlas.com/> and the various statistical information provided by the Philippine Statistics Authority <https://psa.gov.ph/>.

3. ARMED ENCOUNTERS RESULTING FROM POLICE OPERATIONS AND ACTIONS – THE ANALYTICAL FRAMEWORK

Before presenting the methodology used to assess police use of deadly force, it may be helpful to illustrate the logic with a fictitious example. Suppose there have been 400 officer-involved shootings resulting in 410 suspects killed, with no suspects wounded, nor police officers killed or injured. The only conclusion one could draw is that the police used disproportionately excessive force.

On one hand, it's unimaginable that 410 deaths could occur without any suspects being wounded if the police were only using the minimum force necessary to neutralize an imminent threat. One would expect a certain number of suspects to be wounded, or at least some to surrender after initial resistance. On the other hand, the absence of any victimization among the police suggests there was no real threat that would justify the use of potentially fatal force. If there had been such a threat, a small number of police officers would likely have been injured or killed.

This does not imply that none of the 400 cases involved reasonable use of potentially fatal force. However, it does suggest that a significant number of these cases involved the police exceeding the limits of reasonable force, resorting to either excessive force or outright extralegal killings disguised as self-defense in OIS incidents.

3.1 *Indicators for Assessment*

This fictitious example illustrates two general assumptions regarding victimization in OIS. While individual OIS outcomes may vary widely – from police fatalities with suspects escaping to all suspects killed without police casualties – given large numbers of cases certain relationships between types of victimization should emerge:

1. A significant number of wounded suspects should be present if police are not employing shoot-to-kill tactics. The ratio between suspects wounded and killed defines the lethality rate of encounters. The general assumption holds that the number of suspects wounded should be similar to or higher than the number of suspects killed,⁶ otherwise one should assume excessive use of deadly force.
2. There should also be victims on the side of the police operatives (either killed or wounded). The ratio between suspects killed and police killed describes the actual threat experienced by police operatives in armed encounter. Here limits for the assumption of reasonable force are hard to establish, as the rate hinges strongly on the operational type and the equipment of the police.⁷

⁶ This is not only well documented in various datasets for both international and intra-state wars and wars. Also, Gun Violence documentation of mass-shootings in the US (Gun Violence Archive no year), documenting several hundred such shootings each year, where four or more people are killed or injured by a firearm, excluding the shooter, documents a rate with wounded outnumbering killed by approximately 4:1 (calculated from Gun Violence database). In an early study focusing on these indicators Chevigny notes that in Chicago and New York, the respective rates for five-year periods stood at approximately three wounded to one killed in Chicago and two to one in New York (Chevigny 1990: 396). The same, albeit on a more problematic level, holds true for Los Angeles City and County in the early 1990s when wounded to kill ratios stood at 1.6:1 and 1.7:1 respectively (Chevigny 1995: 46)

It is also reflected in the sample of the national and subnational units used later in the paper to embed the "Bulacan-experience" in a larger universe of cases. The majority of cases had higher numbers of wounded than killed, with an average of 1.82:1 for the sample cases and with the minority still being rather near to the 1:1 value.

⁷ In the context of buy-bust operations that resulted in armed encounters in the Philippines, a certain number of wounded or killed police officers must be expected. This expectation is based on several factors.

In the Philippines, undercover officers (poser-buyers) typically cannot conceal bulletproof vests due to the

A further assumption is that given a large number of armed encounters, there should also be suspects neither killed nor wounded, but arrested. This could occur in scenarios involving multiple suspects where some choose to surrender after one is shot, or when an individual suspect decides to yield following an initial exchange of gunfire.

As already mentioned in the introduction, additional environmental characteristics can be utilized to help establish the level of appropriateness of police use of deadly force. This is for example the rate of suspects killed per 100,000 population: This metric indicates the magnitude of police use of deadly force in a specific environment. It is not only useful for temporal and spatial comparisons; if combined with the similar rate of homicides per 100,000 population, it can be used to assess whether specific levels of police use of deadly force are plausible due to the violence characteristics of the environment. Typically, it is assumed that police use of deadly force is far less than criminal homicides, as otherwise the police would be the most important single case of violent death in a given society, killing suspects at a level that cannot be legitimized by the abstract threat emerging from a violent environment. Typically, here the assumption is that police homicides should be lower than 10 percent of criminal homicides, if one is not to assume excessive use of fatal force (Cano 2021a; Zilli 2022).⁸ A more direct measurement of threat levels is the relationship between police operatives killed and force strength of the respective police force.

For the specific case analyzed below a further indicator has been developed, that is the relationship between operations with firearm confiscations and armed encounters: This final indicator assumes that while guns may be confiscated in police operations, this need not result after armed encounters. In many cases, suspects, despite being armed might opt to surrender rather than violently resist arrest or the guns confiscated had not been at hand for the suspect during the police operations. While there are no reports of the details of the confiscations, it is sensible to assume that, given a large number of cases, the circumstances should have been rather similar over time, thus also the share of armed encounters should have been rather similar. A significant rise in the share of fatal encounters within the larger category of cases with confiscation of guns indicates changes in police operational practice, for example the placement of guns in cases of one-sided violence.

Thus, high rates of armed encounters with use of fatal force that clearly surpass earlier rates may signal excessive use of deadly force by the police. In the analysis of Bulacan, this indicator will be used for assessing variation in patterns before Duterte to the War on Drugs years. The core assumption is that the share of non-violent conclusions of cases with confiscated guns should not significantly differ between the pre-Duterte and Duterte period. If significantly higher shares of cases with confiscation of guns resulted in armed encounters and the killing of suspects, one must assume excessive use of deadly force.

tropical climate and local “dress code” expectations necessitating light clothing to avoid suspicion. In general, drug sellers should be suspicious of unknown buyers, even with known informants present, and thus “scan” them rather rigorously. The ongoing War on Drugs (WoD) and frequent police operations targeting street-level pushers should further increase seller vigilance. Thus, at least the poser-buyer carries significant risk.

In addition, police reports consistently state that suspects actively defended themselves by discharging weapons, with confiscated arms always showing fired cartridges. Given these claims, it is highly improbable that suspects always missed their targets. While one-sided victimization is possible in isolated cases, it becomes statistically untenable across a large sample. Thus, the ratio between suspects and police killed in encounters provides insight into the actual threat such operations pose to police operatives, suggesting excessive use of deadly force if the numbers of police operatives killed are excessively low compared to the numbers of suspects killed.

⁸ An early study relating police killings to homicide is Chevigny (1995). Here he shows that in Los Angeles City and county police use of deadly force equals approx. 2 percent of homicides in general, broadly in line with New York’s 1.4 percent (Chevigny, Paul 1995, 67).

These indicators offer a relatively comprehensive framework for evaluating the proportionality and justification of police use of force across different contexts and time periods. However, it is important to emphasize that no single indicator is sufficient to establish excessive use of deadly force.

Returning to the initial example, 410 suspects killed with none wounded, a lethality rate of 410:0 may suggest excessive use of force. However, if these 410 deaths are accompanied by, say, 40 police officers killed and 25 wounded, one might reasonably infer that police were operating in an especially dangerous environment. In such a case, the high number of fatalities could reflect either an appropriate use of deadly force or an instance of excessive force shaped by heightened threat perceptions among officers. While the latter still constitutes excessive force, it may be understood as a psychological reaction to real and present dangers.

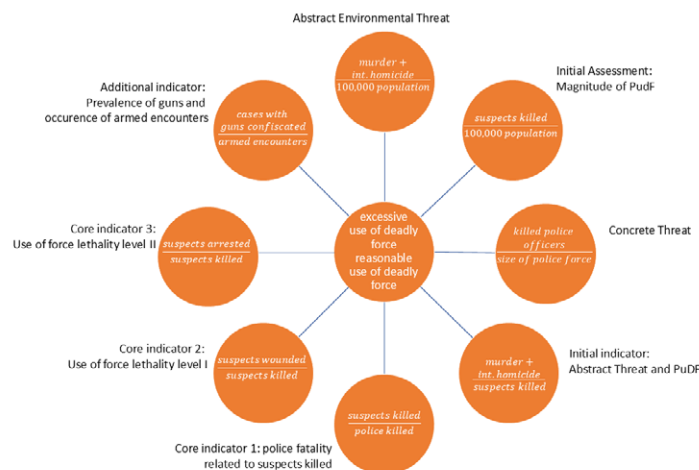
If, on the other hand, the second indicator – police victimization – is close to zero, that explanation loses credibility. Taken together, these two indicators allow us to identify a spectrum: from excessive use of deadly force in non-threatening environments (suggesting police aggression), to excessive but psychologically driven use in dangerous settings, to what is most likely appropriate use of deadly force in genuinely high-risk situations – such as when a high number of suspect fatalities is accompanied by many wounded suspects and a significant number of victimized police officers.

Temporal variation in the indicators outlined above can arise from a wide range of causes. These include an increase in violent criminal syndicates and shifts in police leadership – whether at the local or national level – that elevate the likelihood of violent confrontations, or even directives from national authorities that tacitly or explicitly endorse the use of deadly force, including the killing of crime suspects. Determining which of these factors applies in any given case requires detailed contextual analysis.

In situations where local excesses in the use of force run counter to national directives, one would expect higher levels of the police organization to intervene and realign local practices with nationally endorsed standards of appropriate policing – particularly in the case of centralized police systems, such as in the Philippines. Alternatively, if local changes in crime dynamics – such as the emergence of rival crime syndicates or a general uptick in criminal activity – are to blame, this should be reflected in corresponding shifts in the magnitude and patterns of criminal violence.

The figure below summarizes the discussed indicators.

Figure 1: A preliminary model of indicators of police use of excessive force



All these indicators share a common characteristic: The boundaries separating reasonable from excessive use of deadly force cannot be deduced through theoretical reasoning alone. While it is logical to assume that armed encounters in which police operatives minimize the use of force should result in a higher number of survivors (i.e., more wounded compared to killed suspects), this plausibility argument gains significant traction when supported or refined by reference to a sufficient sample of cases ranging from high to low violence police forces.

3.2 *Contextualization by International Comparison*

In essence, to assess the relative significance of the values achieved for each indicator, it is necessary to contextualize the case under observation through comparison. This can be accomplished either by analyzing temporal changes or by situating it within the spectrum of expected behavior as defined by other countries or subnational units.

To achieve this, the study compiled a dataset with relevant data from more than thirty police forces at national and subnational levels from all continents. While the case selection is not random, as it includes low as well as high police violence cases, it is tightly restricted due to data limitations. For most countries there are either no or only rudimentary data available on police use of force, for example only documenting police fatalities, but lacking information on wounded suspects or victimization on the side of police operatives.

To assemble the dataset official records from police, oversight institutions, or national statistics institutions were used whenever available. When official data were lacking, data from other sources documenting police use of force were used. This may result in underreporting, as these data often rely on news reports.

The dataset includes at least 26 cases for each indicator, with most missing data on suspects wounded in officer-involved shootings (OIS). Data on police wounded was excluded because it was unavailable for the majority of cases. Data for periods of five years or longer were established wherever possible to avoid overestimating specific results due to short-term changes. A large portion of the national-level data focuses on countries with high levels of police use of deadly force, mostly in the Caribbean (Jamaica, Trinidad and Tobago, Bahamas), South America (Brazil), and Africa (South Africa). Indonesia, the Philippines' neighbor, is also included, as well as countries like the United States, Kenya, and Chile, and countries with decidedly lower levels of police violence like France, Germany, Australia, and New Zealand. The subnational cases have an overrepresentation of US entities, as subnational data is typically unavailable for other countries. Despite these limitations, the dataset allows for evaluating the case under observation, Bulacan province, in the light of an international dataset that ranges from low to high violence cases

Before this comparison, the following sections will establish the data on Bulacan police use of deadly force during the final years before the Duterte presidency and the first years of the War on Drugs under President Duterte. This allows not only to establish the various indicators for the international comparison, but also to assess temporal change, and thus the impact of the War on Drugs on local policing practice. For this analysis the initial focus is exclusively on those operations that focus specifically on drug-related crime: buy-bust operations.

4. ANALYZING BUY-BUST OPERATIONS IN BULACAN PROVINCE 2015 TO 2018

The following analysis examines police use of deadly force in buy-bust operations from January 2015 to September 2018. It is based on the coding of all reports of Bulacan PNP for the respective years, with the exception of February 2017 and June/July 2018 due to unavailable police reports for these months. The study encompasses all operations explic-

itly described as “buy-bust” in the reports, i.e. targeted police operations in which an undercover police officer buys illegal drugs from a dealer, in order to arrest him or her in flagranti, typically with the aid of additional support by other police officers. Also coded as buy-bust operations were operations where “buy-bust money” was reported as confiscated. Several types of reports were excluded from the analysis below:

1. Summary reports covering multiple operations across one or several municipalities, which lack detailed breakdowns and offer only aggregate statistics on casualties and arrests.
2. Reports on simultaneous operations across numerous municipalities and cities that combine data from various operation types. For example, a report might include results from 69 buy-bust operations, ten warrant of arrest services, seven police responses, and five “other” operations (as seen in a report dated 2017-10-5).
3. Reports on search warrant executions, as these aren’t always drug-related and may involve illegal firearms.

These categories excluded here are dealt with later in a separate part of the analysis.

4.1 Pre-War on Drugs Period: Baseline Analysis of Police Lethality

Buy-bust operations resulting in armed encounters were relatively infrequent during the 18-month from January 2015 to June 2016. Fourteen such operations led to 20 suspects killed, two wounded, and 36 arrested, with three suspects escaping. Notably, these operations resulted in no police casualties (zero officers killed or wounded).

Table 1: Indicators on police use of deadly force under Aquino (1/2015-6/2016)

Buy-bust operations	Ratio	Rate
Wounded suspects / Killed suspects	2/20	0.1
Arrested suspects / Killed suspects	36/20	1.8
Killed suspects / Killed police	20/0	-
(Arrested + Escaped suspects) / Killed suspects	39/20	1.95
Suspects killed per month	-	1.11

Source: Bulacan PNP reports, coded by the author.

Given Bulacan’s 2015 population of 3.3 million, the 20 police killings in 18 months during buy-bust operations translate to an annual rate of 0.4 civilians killed per 100,000 population. Overall, Bulacan PNP killed 56 suspects during this period, or 1.1 per 100,000 population annually. During this period buy-bust operations account for only a minority of on-duty police killings (36 percent).

Despite the as yet “low numbers,” the extremely high lethality level is striking across all operation types, given that only 4 suspects were reportedly wounded overall. Thus, in both buy-bust and all other operations, 10 or more suspects were killed for each wounded.

The number of suspects arrested in buy-bust operations exceeded those killed by 80% during the 18 pre-Duterte months. Nearly two suspects were arrested for each one killed in buy-busts resulting in armed encounters.

However, the majority of arrests stems from specific cases where only a minority of suspects (the primary targets) reportedly defended themselves, while “others” were arrested. Examples include:

- 4 suspects killed and “12 others” arrested (2015-9-30, Norzagaray)

- 4 suspects killed and “four others” arrested in a “drug den” (2016-5-26, Norzagaray)
- 1 suspect killed with 8 others arrested during a “pot-session” (2016-6-18, Plaridel)

In two cases with one suspect killed and multiple arrests (2016-2-18, San Jose Del Monte; 2016-3-2, San Miguel), only one gun was confiscated, with the suspect’s “live-in partner” among those arrested in both instances.

These patterns suggest that a significant proportion of those arrested were individuals present at the operation site but not the intended targets of the operation.

During the final 18 months of the Aquino presidency:

1. Police use of deadly force was already fairly high. When suspects resisted in anti-drug operations, police tended to respond with a level of force that almost always resulted in the suspect’s death. This pattern does not align with the assumption that in armed encounters where police use only minimal necessary force, the number of wounded suspects should equal or exceed the number killed.
2. While the number of arrests surpassed the number killed by 80%, many of those arrested appear not to have been the actual targets of the operations. If only the original targets are considered, an extremely high kill-rate emerges. The number of arrests would be reduced by more than 50 percent if those who were likely just in the wrong place at the wrong time were excluded.
3. It is also striking that not a single police officer was reported as wounded or killed. Given that buy-bust operations require police officers to operate in close proximity to suspects, and suspects are always reported to have resorted to armed force first, a complete absence of police casualties is highly improbable. However, due to the relatively small number of cases, this outcome cannot be entirely ruled out.

4.2 *WoD period: Escalation of Fatal Force in Police Operations*

The number of buy-bust operations resulting in armed encounters increased dramatically during the War on Drugs. At least 343 such operations were recorded, resulting in 397 suspects killed and 153 arrested during the first 24 months of the War on Drugs for which official data are available up to September 2018 (data on three months missing). One police officer was killed, with none reported wounded in these operations.

The table below shows that all indicators of excessive use of deadly force worsened dramatically during the War on Drugs compared to the preceding 18 months. The rate of suspects killed in buy-bust operations multiplied. Whereas in the 18 months before Duterte 1.1 suspect was killed per month, the 24 coded months between July 2016 and September 2019 saw almost 17 suspects killed per month (see table below).

The rate of suspects killed in buy-bust operations per 100,000 population per year increased from 0.4 to 6.6. The overall rate of suspects killed by on-duty police reached 9.1 per 100,000 population per year. Consequently, suspects killed in drug-related buy-bust operations accounted for over 70% of all killings in Officer-Involved Shootings, doubling the 36% share of the preceding 18 months before the War on Drugs.

Table 2: Victimization in armed encounters under Aquino and Duterte

President	period		Suspects wounded/ suspects killed	Suspects arrested/ suspects killed	Suspects killed/ police killed	Suspects arrested+ suspects escaped/ suspects killed	suspects killed per month
Aquino	1/2015- 6/2016	rate	0.1	1.8		1.95	1.11
		totals	2/20	36/20	20/0	39/20	20
Duterte	7/2016- 9/2018	rate	0.0025	0.385	397	0.496	16.54
		totals	1/397	153/397	397/1	197/397	397

Source: Bulacan PNP reports, coded by the author.

The already problematic ratio of wounded to killed suspects shifted to a dramatic asymmetry. With nearly 350 documented individual buy-bust operations resulting in armed encounters and 397 killed suspects, the report of only one wounded suspect strongly suggests that Bulacan police adopted a clear shoot-to-kill policy during the early years of the War on Drugs.

Furthermore, the fact that only one police officer was killed and none reportedly wounded in these operations indicates that in the vast majority of “encounters,” suspects posed no real threat to the police. The 397:1 ratio clearly establishes that in most cases, the operational environment did not justify the use of potentially deadly force.

The relative share of arrests or reported escapes of “cohorts” of the killed suspects in armed encounters also changed significantly. Before the War on Drugs, there were more arrests than killings. During the War on Drugs, this pattern reversed. While overall arrests increased dramatically due to numerous arrests in operations not resulting in armed encounters, the chances of being arrested instead of killed dropped significantly when encounters did occur.

This comparison with the pre-Duterte period reveals:

1. The War on Drugs witnessed a staggering increase in police use of deadly force during buy-bust operations, exceeding 1,600 percent. Any police force prioritizing human life would have made substantial efforts to adjust their operational methods to reduce fatalities. No such efforts were apparent in Bulacan.
2. The ratio of 397 killed to one suspect wounded provides overwhelming evidence of a clear shoot-to-kill policy employed by the PNP in their “buy-bust” operations. The majority appear to have been one-sided targeted killings disguised as armed encounters.
3. The stark contrast of 397 suspect fatalities against only one police death demonstrates the absence of genuine danger to officers during most “encounters.” This suggests that the precondition for firearm use, that “the offender poses imminent danger of causing death or injury to the police officer or other persons” (Philippine National Police 2013), was not met in most cases. In case of a genuine threat, the near-total absence of police casualties would be highly improbable.

5. GOING BEYOND BUY-BUST

5.1 *The Confiscation of Guns and Armed Encounters*

The confiscation of firearms by Bulacan Police before and during the War on Drugs reveals significant changes in operational patterns. While detailed circumstances of confiscations are not available, it is important to note that firearm seizures do not necessarily indicate

prior armed encounters. In many instances, suspects may surrender to avoid risking their lives. Thus, the relation of cases of confiscation after peaceful surrender and confiscation after an armed encounter should be of interest (see table 3 below).

During the final 18 pre-Duterte months, Bulacan police confiscated guns in 79 operations of various types, of which only 32 included an armed encounter, i.e. in most cases, the suspects either surrendered or did not have the gun at hand. The analyzed period during the War on Drugs presents a completely different picture with 459 reported confiscations of guns, of which only 37 did not come in the aftermath of an armed encounter. This data reveals a stark increase in the proportion of firearm confiscations associated with armed encounters during the War on Drugs, rising from 40.5% to 91.9%.

Table 3: Confiscation of guns, armed confrontation and police use of deadly force

Period	guns confiscated - no encounter	gun confiscated - with encounter	total	share armed encounters
1/2015-6/2016	47	32	79	40.5
7/2016-9/2018	37	422	459	91.9

Source: Bulacan PNP reports, coded by the author.

Two explanations may account for this shift:

1. Suspects who previously chose to surrender decided to engage in armed confrontations with law enforcement during the War on Drugs. However, given the widely reported almost 100 percent fatality rates in these encounters, such a choice would more closely resemble police-assisted suicide than a rational survival strategy. It's highly implausible that almost all street-level drug pushers would collectively opt for this high-risk approach with almost nil chances of success.
2. While pre-Duterte encounters may have been largely genuine and confiscated guns belonged to suspects who chose to engage police, most guns confiscated during War on Drugs related encounters were likely planted by police to mask targeted killings. If police intended to kill suspects, they needed to "discover" and confiscate guns at operation sites to fabricate evidence of armed resistance.

To address potential bias in comparing different types of operations, the data was reorganized to focus solely on buy-bust operations (see table 4 below), which carry a higher probability of escalation compared to other police actions (e.g., searches for illegal firearms or arrests for white-collar crimes like fraud). This approach provides a more consistent baseline for comparison.

The reorganized data shows:

Table 4: Confiscation of guns, armed confrontation and police use of deadly force in buy-bust operations

buy bust operations only	gun confiscated - no encounter	gun confiscated - with encounter	total	share armed encounters
1/2015-6/2016	9	14	23	60.9
7/2016-9/2018	2	332	334	99.4

Source: Bulacan PNP reports, coded by the author.

The share of operations with gun confiscations linked to armed encounters also increased when focusing solely on buy-bust operations.

In the pre-Duterte months, 61% of gun confiscations in buy-bust operations involved prior armed encounters, 20% higher than in the overall sample. This may signal that buy-bust operations actually do hold a higher chance of escalation. However, during the War on Drugs, gun confiscation became almost synonymous with armed encounters and suspect fatalities in buy-bust operations. Only two buy-bust operations were reported where guns were confiscated without a prior encounter, resulting in a 99.4% rate of armed encounters in buy-bust operations, that resulted in the confiscation of one or more guns.

This dramatic shift strongly suggests a fundamental change in these operations during the War on Drugs, raising questions about the legitimacy of reported armed encounters and the potential widespread use of lethal force without justification. The most plausible conclusion is that most armed encounters were not “by chance”, but pre-organized by the police with the aim to kill the suspects and pretend a context of self-defense, necessitating the provision of a firearm.

An extreme case, illustrating the plausibility of this argument, is the case of six civilians killed in three “armed encounters” in February 2020. This case stands out, because it could be proven that those six civilians were detained days earlier and temporarily held in the police station, only to be brought in pairs to secluded areas, where they were shot dead by police operatives, who planted the necessary evidence and reported armed encounters in the course of buy-bust operations during the following days (Buan 2021, Caliwan 2021). This case could only be solved because photos of the six persons existed while in detention, blind-folded and hand-tied, thus exposing the police reports as blatant lies.

One official, well acquainted with then Bulacan province police goes further, arguing that the police also killed to mask their own involvement in illegal activities, as for example by killing former police assets:

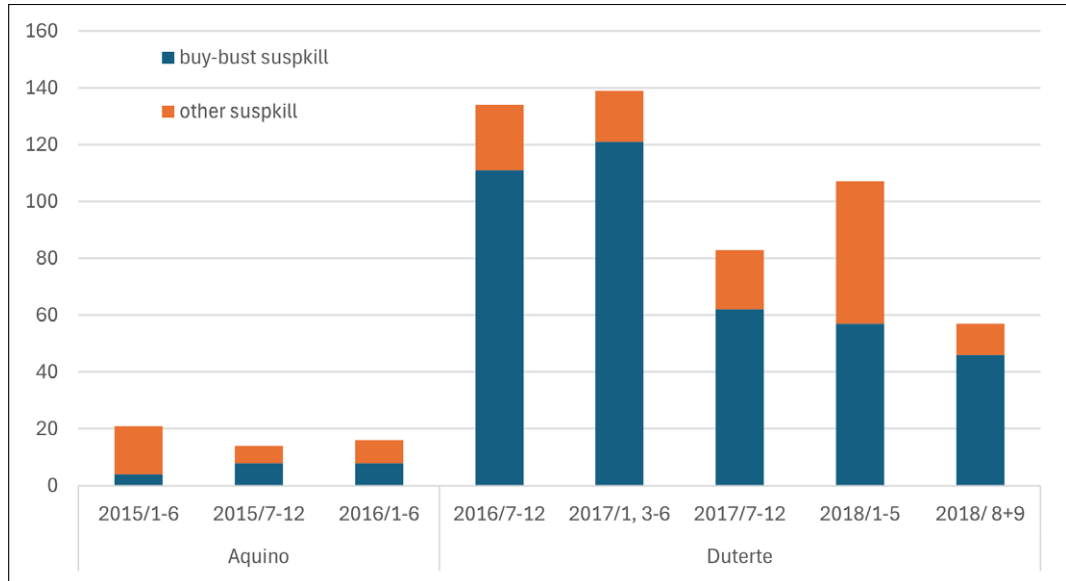
“What the police, maybe in general, would do is to utilize a person or group of persons as assets in their activities, serving as assets just to be able to penetrate a group or syndicate persons. And so, that after making use of this person as asset and [...] benefiting from his services and [given] that this person has gained so much knowledge about their activities, they would neutralize the person after. It’s not fair, but that’s what they do.” (Interview 2022, former high ranking government official, provincial level, Bulacan, anonymized).

5.2 *War on Drugs-related Police Use of Deadly Force beyond Buy-Bust Operations*

The above analysis of Bulacan police’s use of deadly force during the War on Drugs underestimates actual levels due to problematic presentation of operational data in original Bulacan PNP documents. Summary reporting on larger sets of operations contribute to this underestimation. With rising numbers of operations, Bulacan PNP reports often aggregate data in three ways: summarizing multiple operations of one type in a single Local Government Unit (LGU), summarizing multiple operations of the same type in several LGUs or summarizing various operation types across several LGUs. This latter category of reports combining different operation types has been excluded from the analysis above due to uncertainty in attributing casualties to specific operation types. The following discussion will provide an assessment for these hitherto neglected category

Figure 2 below shows fatal victimization for the category buy-bust operations on the one hand and all other types of operations and police actions on the other hand.

Figure 2: Suspects killed by policy in buy-bust operations and other operations and activities



Source: Bulacan PNP reports, coded by the author.

The figure shows that the category of buy-bust encompasses the vast majority of cases. However, detailed analysis shows that amongst the “other” category a more than trifling number should be classified as fatal violence in the War on Drugs.

Several summary reports consider a mix of operations during the War on Drugs. They report 207 buy bust operations, 49 warrants of arrest, 13 search warrants, nine police response and six other that taken together resulted in 35 suspects killed. For 16 of them it could not be found out, in which type of operation they were killed. Given that buy-bust operations held more than 70 percent of the total number of operations, one may assume that the majority of suspects killed in those collectively reported operations died in buy-bust operations.

A second category of summary reports emerged in 2018 with Bulacan PNP reporting on simultaneous large-scale raids, labeled as “Enhance Managing Police Operations” (EMPO). While depicted as a combination of various operational types, the suspects killed and arrested were collectively categorized as “illegal drug suspects.”

While arrests outnumbered fatalities, EMPO operations were exceptionally lethal. 42 suspects were killed across four operations (one EMPO per month). This means an average of 10 deaths per operation. The deaths in these operations account for 84% of the 50 “other suspects” killed in the first five months of 2018.

Given the dominance of buy-bust operations in these reports, it’s reasonable to assume most EMPO fatalities occurred during purported buy-bust operations.

In conclusion, while the initial analysis attributed 75% of all police killings to buy-bust operations, a more comprehensive examination suggests the actual proportion is significantly. The analysis reveals three points:

1. The number of drug-related killings by Bulacan police forces was even higher than initially estimated from individually reported buy-bust operations.
2. While before Duterte’s presidency, illegal drugs were one of several categories involved in armed encounters and police use of deadly force, during the War on Drugs, they be-

came the dominant category. Drug-related killings likely accounted for 85 to 90 percent or more of all police killings.

3. The dramatically increased use of fatal force by police was tightly associated with an exclusive focus on illegal drugs. Notably, there was no visible increase in police use of deadly force for other forms of crime, such as robbery, theft, or rape.

This analysis underscores the targeted nature of the War on Drugs and its disproportionate impact on drug-related cases compared to other criminal activities.

5.3 Police Use of Deadly Force and Homicide Rates

Police are granted the authority to use force to maintain security in society. However, this power must be exercised judiciously to ensure that law enforcement does not become a greater threat to public safety than crime itself.

In the Philippines, detailed crime data below the regional level is often unavailable or inaccessible. Freedom of Information requests are frequently ignored or answered inadequately, preventing systematic analysis or comparison. This also holds true for specific data on murders and homicides in Bulacan province for the years preceding Duterte's administration, which are not available.

However, in mid-2019, the Philippine News Agency provided precise annual data on all index crimes by category for the three years from July 2016 to 2019 (Philippine News Agency 2019). This allows for a detailed comparison of the first two years of the War on Drugs. The results for Bulacan are alarming.

Table 5: Comparing suspects killed by the police to intentional homicide

Period	murder+ homicide	Suspects killed	(murder+homicide)/ suspects killed	Suspects killed in comparison to homicide (in percent)
7/2016-6/2017	513	288	1.78	56.1
7/2017-6/2018	243	204	1.19	84.0
total	756	492	1.54	65.1

Source: Bulacan PNP reports, coded by the author.

The table above shows that in the first year, there were nearly 1.8 murders/homicides for each police killing (with one month of missing data). Police killings equaled 84 percent of intentional homicides and murders, despite one missing month of data on police killings. Over the entire period, the rate of police killings stood at 65% of all homicides, a share that would have been somewhat higher, if data for police killings in the two missing months would be available.

These statistics demonstrate that police use of deadly force in Bulacan during the War on Drugs was highly excessive. It is an abnormal situation, when the police become the primary source of violent death.

6. SUMMING UP THE ANALYSIS

It is appropriate to provide a preliminary analysis of the established findings. A comparison of data from the final 18 months before Duterte War on Drugs and the initial years of its implementation reveals a dramatic shift across all metrics. The number of deaths caused by police in drug-related buy-bust operations surged by approximately 1,500 percent, in-

creasing from an average of one suspect killed per month to over 16. This escalation is entirely attributable to the War on Drugs, as fatality rates in non-drug-related police operations remained unchanged.

The already low pre-Duterte ratio of wounded to killed suspects declined further during the War on Drugs, with only one suspect reportedly wounded compared to 397 killed. Although overall arrests in buy-bust operations increased, the arrest-to-killing ratio deteriorated significantly. Before Duterte, approximately two suspects were arrested for everyone killed in buy-busts involving armed encounters. Under the War on Drugs, this ratio inverted, with more than two suspects killed for everyone arrested. Police casualties remained minimal in both periods, with only one officer killed during War on Drugs buy-bust operations compared to the nearly 400 suspects.

6.1 Analysis of Police Use of Deadly Force

The sharp increase in fatalities cannot be plausibly explained by an increase in buy-bust operations alone. The near absence of wounded suspects and the decline in arrests strongly suggest that deadly force was used excessively and unjustifiably. According to the Philippine National Police's Revised Operational Procedures (December 2013), deadly force is permissible only when there is "imminent danger of causing death or injury to the police officer or other persons" (Philippine National Police 2013) The data indicates that this standard was not met in most cases.

Further evidence comes from operations involving gun confiscations. Whether examining all operations or just buy-busts, the proportion of incidents resulting in armed encounters and fatalities increased dramatically. Assuming that buy-bust operations targeted similar groups with comparable tendencies to resist arrest, the shift from 60% to nearly 99% of such situations ending in armed confrontations suggests fabrication by police rather than a genuine change in suspect behavior.

6.2 Implausibility of Alternative Explanations

The alternative explanation that suspects suddenly and collectively altered their "rational" calculation to favor armed confrontation over surrender is implausible for the following reasons:

1. Gradual Behavioral Shift: If suspects had collectively altered their behavior to favor armed resistance, this change would likely have occurred gradually as they adapted to new circumstances. However, data shows an immediate shift at the start of the War on Drugs.
2. Rationality of Armed Resistance: Armed confrontation would only be logical if it increased chances of escape. Yet, data shows a fatality rate of nearly 100% for those who reportedly resisted, with no successful escapes recorded – providing no incentive for resistance.
3. Assumption of Execution: Even during Duterte's campaign, most buy-bust operations resulted in arrests rather than fatalities, making it unreasonable for suspects to assume they would be executed regardless of their actions.

A rational response for suspects would have been to avoid carrying firearms altogether, thereby improving their survival chances during buy-bust operations. The dramatic rise in armed encounters strongly supports the conclusion that many so-called "armed confrontations" were fabricated by police and were, in reality, targeted killings.

An additional indicator of excessive use of deadly force is that during one year (mid-2017 to mid-2018), police killings nearly equaled the total number of intentional homicides from all other causes combined.

7. ASSESSING THE BULACAN DATA IN INTERNATIONAL CONTEXT

This section assesses the significance of the Bulacan data by placing it in an international context, comparing it in a systematic form to data from other countries across various regions of the world. The comparison incorporates both national and subnational data from police forces with varying reputations for violence. Such contextualization enables a broader understanding of Bulacan's situation. This comparative approach establishes empirical benchmarks of expected values for each indicator, highlighting whether the use of force aligns with regulations, reflects minor issues, or reveals major problems. Despite data deficiencies and inconsistencies, this method provides valuable context for evaluating Bulacan's police force.

Table 6: Bulacan police use of deadly force in international comparison

Country	City/ Province/ State	period	years	Sus- pects killed	Sus- pects wound- ed	Police killed	Police wound- ed	Mur- der+ inten- tional homic- ide	Populati- on (mill)
Australia		2010-2023	14	107	N/A	8	1	3471	24.6
Bahamas		2020-2024	5	36	41	0	N/A	550	0.412
Brazil		2018-2023	6	20080	N/A	313	N/A	263649	213
Chile*		2018-2022	5	80	648	6	216	5102	19
France		2019-2023	5	54	56	N/A	N/A	4531	67.9
Germany		2010-2023	14	141	408	7	N/A	9138	83
India*		2004-2010	7	2237	3636	711	N/A	229596	1191
Indonesia		2005-2014a	10	1035	9208	48	142	9874	250
Jamaica		2015-2023	9	1134	744	47	N/A	12523	2.8
Kenya		2021	1	82	NA	NA	N/A	3256	53.22
New Zealand		2011-2020	10	17	20	1	4	521	4.72459
South Africa		2019-2023	5	1941	N/A	150	N/A	121593	59
Trinidad and Tobago		2018-2022	5	248	105	8	17	2508	1.35
United States		2015-2023 ^a	9	9255	N/A	498	N/A	133058	328
Argentina	Greater Buenos Aires	2010-2017	8	380	N/A	73	N/A	9896	14.6
Brazil	Sao Paulo State	2015-2024	10	5733	4063	151	2161	31535	44
Brazil	Sao Paulo City	2015-2024	10	2470	1838	66	803		22.1
England	Greater London	2010-2022	13	13	N/A	2	N/A	1600	8.661638
Indonesia	Jakarta	2005-2014	10	200	876	5	10	555	9.6
South Africa	Gauteng	2018/19-2022/23 (excl. 2021/22)	4	396	N/A	36	N/A	19540	14.79
South Africa	KwaZulu-Natal	2018/19-2022/23 (excl. 2021/22)	4	421	N/A	25	N/A	21026	11.735
United States	Chicago City	2021-2023	4	24	48	4	34	2916	2.6
United States	Baltimore ^{b) 8}	2017-2022	6	19	9	2	N/A	2006	0.591
United States	Detroit ^{b) 9}	2018-2020	3	11	15	4	7	863	0.63
United States	Houston	2015-2024	10	96	143	4	N/A	1993	2.3
United States	Los Angeles City	2018-2022	5	64	64	1	24	1301	3.8
United States	Memphis ^{b) 4}	2015-2022	8	20	21	1	6	1741	0.646
United States	New Orleans ^{b) 8}	2015-2023	9	11	12	1	5	1652	0.384
United States	New York City	2014-2023	10	86	127	8	35	3711	8.3
United States	Philadelphia	2016-2024	9	34	38	2	30	3557	1.55
United States	St. Louis	2009-2024	16	69	N/A	2	N/A	2732	0.305

United States	Washington D.C.	2018-2023	6	14	24	0	0	1227	0.68
United States	San Diego County	2019-2023	5	13	N/A	0	N/A	125	3.27
United States	Michigan State	2020-2023	4	95	85	6	N/A	2794	10
United States	Oklahoma State (excl. Oklahoma City)	2021-2022	2	24	16	0	2		2.6
United States	Texas	2016-2024	9	1051	703	40	234	13553	29.36
United States	Puerto Rico	2014-2020	7	71	46	12	N/A	4603	3.33
Philippines	Bulacan 1/2015-6/2016	1/2015-6/2016	1.5	56	4	0	1		3.292
Philippines	Bulacan 7/2016-9/2018	7/2016-9/2018	2	549	3	1	0	756	3.92

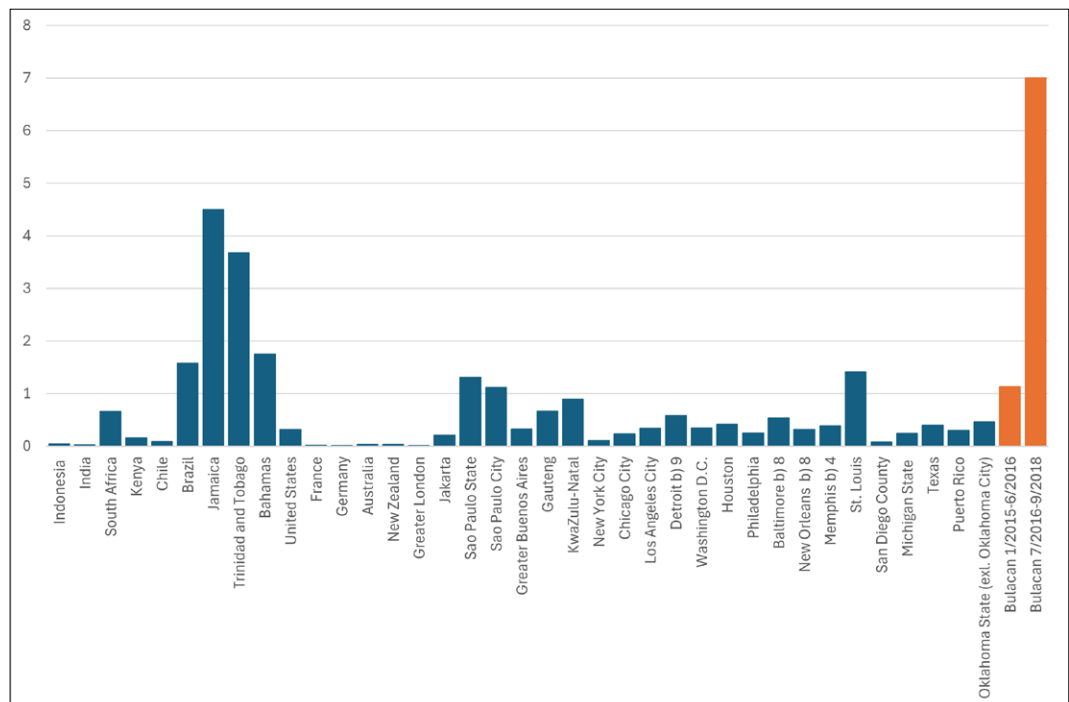
Sources and additional information: please turn to the Appendix.

b) = City in 50 most violent cities list at least three times between 2015 to 2024, according to Seguridad, Justicia Y Paz, Mexico, <https://geoenlace.net/seguridadjusticiaypaz/> - number: how often in those 10 years.

7.1 Magnitude of Police Use of Deadly Force in OIS

The simplest metric for comparison is the rate of police killings per 100,000 population. This fatality rate, comparable to crime rates used to measure the prevalence of specific crimes across different contexts, provides a clear measure of the scale of police use of deadly force and facilitates comparisons across various jurisdictions. For all cases except Bulacan, the median fatality rate stands at 0.33. It is worth noting that in several countries, the rates were so low (<0.1) that they could not be visualized in the figure below and seem to be an empty space.

Figure 3: Bulacan PNP use of deadly force in comparison: magnitude of fatal violence per year and 100,000. Population: suspects killed



While precise values may vary due to differences in datasets, the overall range represented by these units offers important context for understanding both pre-Duterte police practices in Bulacan and those during the War on Drugs. Several observations can be made:

1. Pre-Duterte Period: The 18 months before Duterte's presidency already exhibited a relatively high level of police use of deadly force, comparable to rates observed in São Paulo and South Africa.
2. War on Drugs Period: During the initial years of the War on Drugs, Bulacan experienced an extraordinary escalation in police use of deadly force, surpassing even global outliers such as Jamaica and Trinidad and Tobago.

In essence, the level of police use of deadly force during the War on Drugs in Bulacan exceeded known global benchmarks, with few exceptions. These exceptions include countries engaged in large-scale wars against heavily armed, internationally operating drug cartels (e.g., Mexico, where reliable data on police killings is unavailable) or regimes fighting for survival (e.g., Venezuela), where law enforcement agencies killed more than 12 civilians per 100,000 population between 2018 and 2023 (Observatorio de Violencia various years).

7.2 *Abstract Environmental Threat and Police Use of Deadly Force in OIS*

This situation is particularly concerning given that Bulacan – and the Philippines as a whole – do not experience levels of criminal violence comparable to those of the countries with the highest rates of police use of deadly force. Typically, there is a correlation between police use of deadly force and overall homicide rates, with nations experiencing higher homicide levels often exhibiting increased police killings. However, this relationship is not uniform and is notably more pronounced in Latin American and Caribbean countries compared to South Africa or certain U.S. cities with high homicide rates. This demonstrates that similarly dangerous environments do not necessarily lead to comparable levels of police use of fatal force. Given that the international sample incorporates some of the countries and subnational units with globally the highest fatalities in OIS, the scatterplot below includes a line signaling a relationship of 10:1, meaning that civilian fatalities in OIS are at a 10 percent level of intentional homicides. Thereby it is taken into account that environments characterized by higher violence levels may result in higher levels of police violence due to heightened objective or perceived threat. Given that only two cases from the international sample (blue dots) have worse rates, the rate of 10:1 is a clear cut predictor of excessive use of deadly use of force by the police. A more strict separator is a 20:1 ratio, visualized as a green line in the scatterplot. The figure below shows that the majority of cases, police killings account for less than 5 percent of homicides.

However, Bulacan during the War on Drugs is a dramatic outlier, irrespective of standard used and clearly inconsistent with global trends. While the overall sample includes two cases that have rates of police use of deadly force at approximately 50 and 64 percent of Bulacan's rate, those two, i.e. Jamaica and Trinidad and Tobago have significantly higher homicide rates. In contrast, if in line with other cases, the Bulacan homicide rate of 10 killings per 100,000 population would suggest a dramatically lower police kill-rate, of between 0.3 to 1.3 suspects killed per 100,000 population instead of 7.

Instead, the actual rate in Bulacan is more than five times the rate of the worst case at a broadly similar level of homicides (Sao Paulo) and even exceeds Jamaica – the top scorer in the sample – which, however, has a homicide rate four times higher than Bulacan's. This disparity highlights that in Bulacan, police use of deadly force had no meaningful connection to local societal violence levels and cannot be explained as a police reaction to an especially dangerous and threatening environment.

Figure 4: Bulacan PNP use of deadly force during the WoD in comparison: Visualizing the relationship between homicide and police use of deadly force 2 (killed per 100,000 pop)

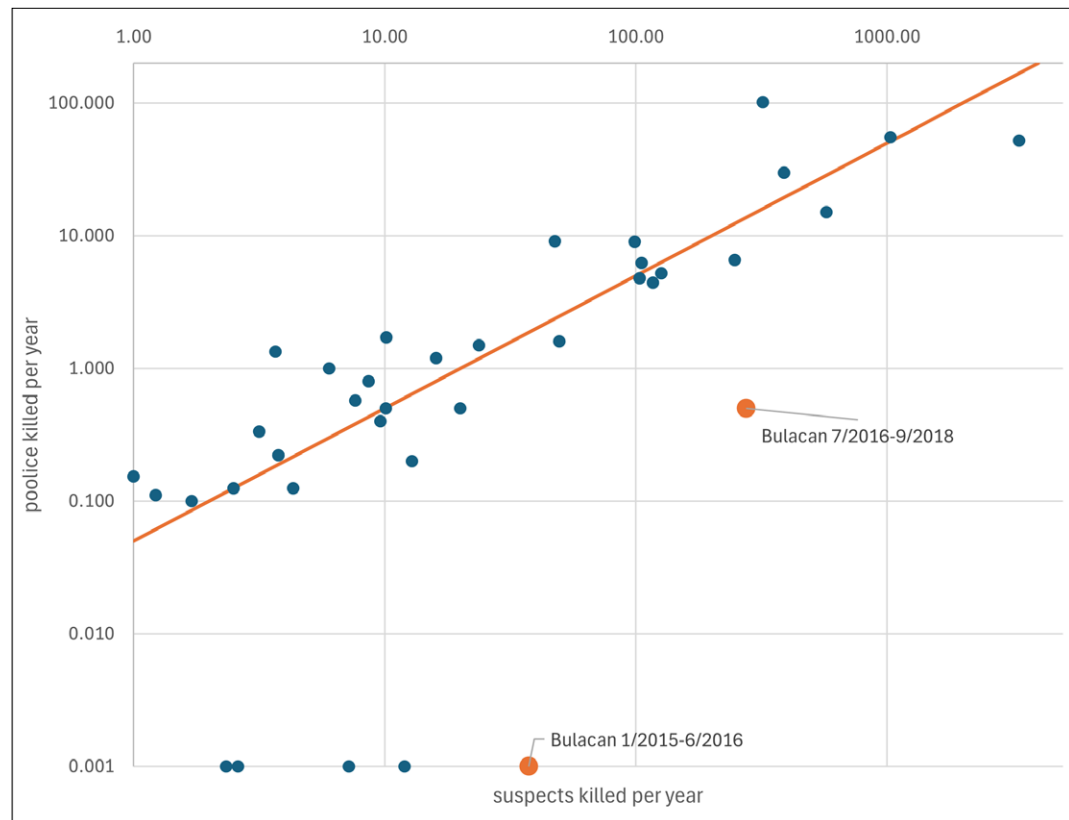


7.3 Use of Deadly Force and Direct Threat to Police Officers in OIS

Hitherto, I highlighted that the stark disparity between the low number of police casualties and the high number of civilian deaths caused by police suggests an excessive use of deadly force. The Bulacan overall ratio of 549 civilian deaths per police fatality during the War on Drugs can now be compared to other cases presented in the accompanying figure 5.⁹ The following scatterplot provides a graphical presentation of this relationship. It assumes that police fatalities rise in line with fatalities on the side of the subjects and again provides a line that signals the boundary to clearly excessive police use of deadly force, based on the sample of empirical cases. It assumes that police need not endanger themselves in their operations, that they may be better trained and in many cases better armed and provided with bulletproof vests, hence a significant disparity between victims on both sides is to be expected. The distribution of cases along the 20:1 separator shows that on the one hand most cases have a rate lower than 20:1, and on the other hand, that the other cases overstep this ratio only to a certain extent.

⁹ Given the logarithmic presentation used for better visualization, cases with zero police fatalities cannot be displayed correctly. To make them visible, they have been given the value of 0.001 fatality. Thus, the five cases displayed at the bottom of the graph are cases with zero police fatality.

Figure 5: Bulacan PNP use of deadly force in comparison: Visualizing lethality and use of deadly force



Since data is available for both the pre-Duterte and War on Drugs periods in Bulacan, the orange dots in Figure 5 illustrate how this ratio changed over time for Bulacan. Even before Duterte's presidency, Bulacan already stood out in international comparisons, with a disproportionately high number of police killings despite facing minimal threats, as indicated by zero police fatalities. During the War on Drugs, Bulacan's figures became even more extreme, far exceeding expectations based on a sample of 28 national and subnational cases with available data. Bulacan reported a staggering ratio of 549:1, which is vastly higher than the second-worst case – Brazil – with a ratio of 64:1. The only plausible explanation for such an extreme ratio is a widespread policy of extrajudicial executions disguised as OIS.

7.4 The Lethality of Police Use of Potentially Deadly Force in OIS

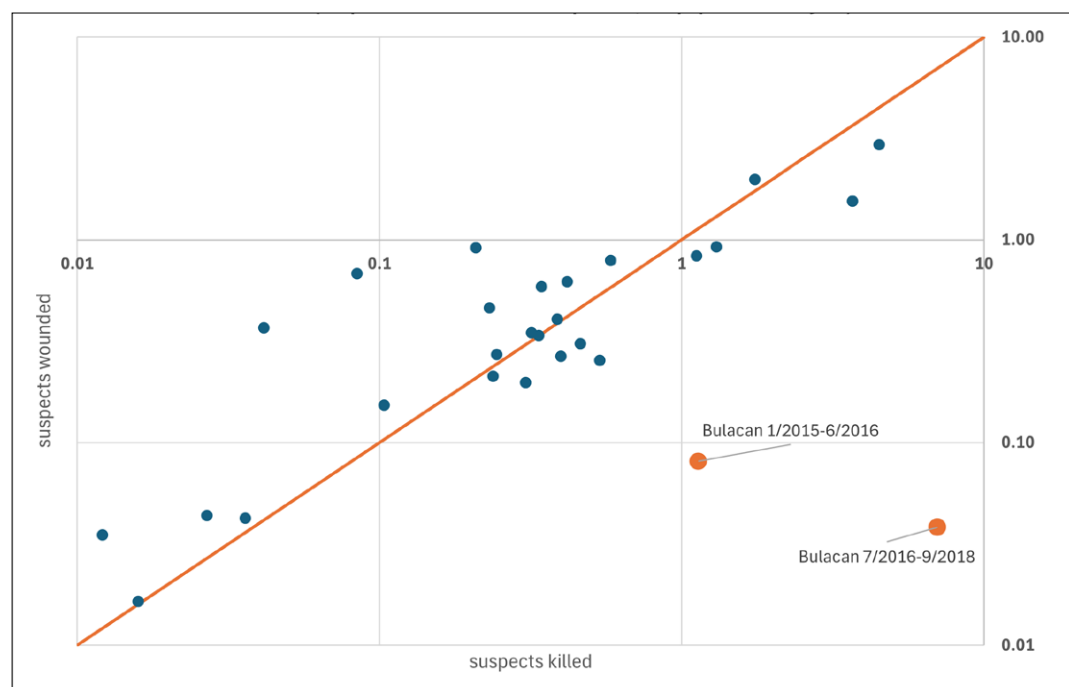
The lethality of police use of potentially deadly force in officer-involved shootings (OIS) can be assessed by examining the ratio of suspects killed to suspects wounded. I argued that the most compelling evidence of excessive use of deadly force by the Bulacan police during the War on Drugs was its highly disproportionate ratio of 549 suspects killed to only 3 wounded. To evaluate the extent of Bulacan's exceptionalism, this ratio is compared with other cases for which comparative data are available.

One rough indicator of excessive use of deadly force is that suspects killed should not outnumber suspects wounded during armed encounters unless there is evidence to justify such high fatality rates, therefore the 1:1 ratio is included in the graph below (orange line). This graph reveals some variation across cases but shows that most hover around a ratio of one suspect wounded for every suspect killed. In fact, most cases report more wounded than killed suspects, with only a few exceptions. Even in cases with extremely high lethality

rates, the ratio rarely exceeds two suspects killed for every one wounded – except for Trinidad and Tobago, which reports a rate of 2.4 killed for each wounded.

The situation in Bulacan is fundamentally different. Even before Duterte’s presidency, Bulacan exhibited lethality far beyond the norms established by other cases, with 14 suspects reportedly killed for every one wounded in armed encounters. During the War on Drugs, this lethality escalated dramatically, reaching an extreme ratio of 183 suspects killed for every one wounded. This suggests that a local practice of killing suspects was already in place before Duterte’s administration but was used sparingly. During the War on Drugs, this exceptional practice was normalized and became a mainstream approach for dealing with alleged criminal subjects.

Figure 6: Bulacan before and during the WoD in international comparison: Lethality of police use of firearms



7.5 Combining Threat and Lethality

The level of threat to police – measured by the ratio of police officers killed to suspects killed – and lethality – measured by the ratio of suspects wounded to suspects killed – are independent variables.¹⁰ Together, they provide a framework for analyzing patterns of violent interaction between police and suspects.

¹⁰ Excluding Pampanga the correlation coefficient for the 22 cases with complete data is -0.04, with p-value of 0.858, signaling an almost perfect random relationship.

Table 7: Descriptive Statistics for International Sample (excl. Pampanga)

	lethality	threat
Mean	1.95	20.85
Median	1.11	18.5
Standard deviation	2.3	14.6
Minimum	0.42	2.75
Maximum	8.9	64

Lethality is expected to increase as perceived threat rises. In more dangerous environments, police are likely to react more defensively, earlier, and with greater intensity, increasing the likelihood of encounters involving potentially deadly force. Moreover, environments with a history of high police victimization may increase the probability of lethal force being employed. However, low lethality does not necessarily indicate appropriate use of force – especially when accompanied by high police fatality rates. This combination raises concerns about whether officers are taking excessive operational risks. The need to protect law enforcement personnel and minimize casualties on their side imposes implicit (if undefined) limits on the risks police should assume in their efforts to avoid suspect fatalities. Therefore, low lethality combined with high threat may reflect a police force operating under unsafe or reckless conditions. Conversely, when threat levels are low, lethality should also remain low if one were to assume a general pattern of non-excessive use of deadly force. One particularly troubling combination is low threat paired with high lethality, as it suggests the excessive use of deadly force in situations where the danger to officers is minimal.

Table 8: A framework for assessing violent interactions by linking lethality and threat

		Lethality		
		High	Medium	Low
Threat	Low			
	Medium			
	High			??

The scatterplot below illustrates how lethality and threat relate across the cases. Cases that fall below the thresholds for both variables are located within the small square defined by the two solid orange lines in the lower right corner of the scatterplot. The dashed lines indicate the individual thresholds for each variable where only one of the criteria is met.

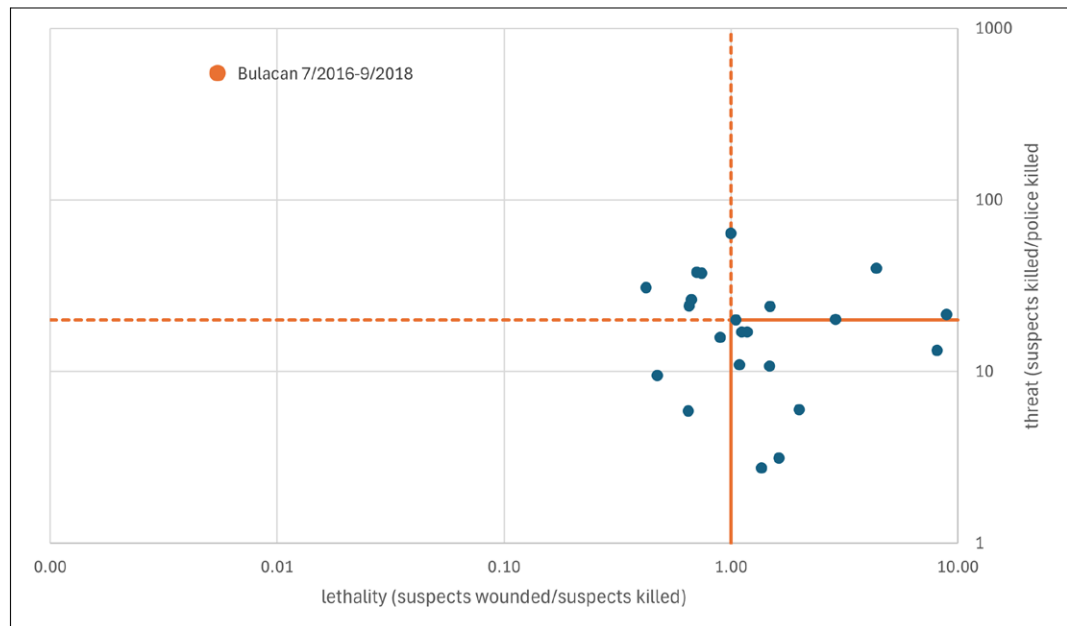
Only 8 out of the 22 cases with complete data fall within the limits defined by both thresholds, with several others nearby. A small number – five cases – fail to meet either threshold. Bulacan’s exceptional position was already evident in previous scatterplots. The figure below further highlights its outlier status, showing a vast distance from all other cases on both indicators.

Most other cases cluster around lower lethality values, with the majority reporting more suspects wounded than killed – indicated by a ratio above 1 for suspects wounded to suspects killed. The most problematic ratios, 0.42 and 0.47, are found in Trinidad and Tobago and Baltimore, respectively, meaning that more than two suspects are killed for every one injured. Yet Bulacan’s ratio far surpasses even these alarming figures. During the early years of the War on Drugs, 183 suspects were killed for every suspect reportedly wounded, resulting in a lethality ratio of just 0.005.

The same pattern emerges for the threat indicator. A ratio of more than 20:1 (suspects killed to police killed) already signals a serious problem and divides the international sample roughly in half. Brazil, the worst non-Philippine case, reaches a ratio of 64:1. Yet once again, Bulacan exceeds even this extreme, with over 500 suspects killed per police officer killed.

Figure 7: Bulacan PNP use of deadly force during the WoD in comparison: Threat and le-

thality (with boundaries 20:1 and 1:1)



The enormous gap separating Bulacan from even the most severe international cases on both indicators of deadly force leads to a stark conclusion: most reported encounters in Bulacan during the War on Drugs were not exchanges of gunfire, but one-sided executions aimed at eliminating suspects.

The data clearly show that this level of violence cannot be attributed to rogue officers acting against protocol. Rather, it reflects a systemic practice.

The data show that this excess can under no circumstances be explained by rogue police-officers disobeying rule of law and due process oriented guidelines, but is an expression of a systemic practice.

The combination of low threat and extraordinarily high lethality in Bulacan underscores a pattern of systematic and disproportionate use of deadly force, unjustifiable by appeals to operational risk or self-defense. This extreme deviation positions Bulacan as a deeply troubling example of excessive and unlawful policing during the War on Drugs.

7.6 *Summing up: Bulacan Compared to the Sample Cases in Four Crucial OIS Dimensions*

The analysis of the Bulacan Philippine National Police's (PNP) use of deadly force during the War on Drugs, compared to data from other national and subnational units worldwide, including historically violent police forces, reveals an exceptionally severe approach. Bulacan police practices appear to have been deliberately designed to eliminate a significant portion of local drug dealers and most probably also users, often through extrajudicial killings.

While countries such as Brazil, Jamaica, and Trinidad and Tobago employ aggressive police strategies, partly due to their roles as drug transshipment points and the presence of powerful organized crime groups, this rationale does not apply to the Philippines or Bulacan. Reports from the Bulacan PNP during the War on Drugs do not indicate that their targets were part of large-scale organized crime syndicates. Despite some connections to China in the synthetic drug market (shabu), there is no evidence that War on Drugs victims in Bulacan had meaningful ties to major drug cartels. Instead, the available information

suggests that the PNP primarily targeted loosely connected street-level dealers. In cases where deadly force was used and criminal organizations were mentioned, these groups were typically small scale and localized, involved in theft or robbery rather than large-scale syndicates.¹¹

Under these conditions, one would expect Bulacan's use of deadly force to fall within the global patterns observed in the more than 30 comparative cases – perhaps even on the lower end of the spectrum. However, this expectation is not met. Bulacan consistently emerges as the most extreme case across all indicators, far surpassing other examples and strongly pointing to a pattern of systemic, excessive use of deadly force.

A boxplot based on normalized values (ranging from 0 to 1) across four dimensions visualizes the extent of Bulacan's deviation from other cases during Duterte's War on Drugs. For comparison, the maximum observed value for each indicator in the dataset was set to 1, with all other values scaled proportionally. For interpretive clarity, two indicators were inverted: the ratio of homicides to suspects killed was presented as suspects killed per homicide, and the ratio of suspects wounded to suspects killed was shown as suspects killed per suspect wounded. The boxplot's technical details need not concern us here. What is essential is that the interquartile ranges (the box portions, representing the 25th to 75th percentile) are relatively narrow across all indicators, while outliers – represented by the colored dots – stand out markedly.

Bulacan registers the maximum value of 1 in all four indicators, whereas most other cases fall below 0.05. This means Bulacan's values exceeded by more than 90% most of the cases in the sample. Even the other most extreme outliers appear comparatively moderate in comparison to Bulacan. Given that the sample already includes national and subnational cases of highly violent police behavior, this dramatic gap indicates that Bulacan's practices during the War on Drugs were not only extreme but also systematic. The extraordinarily high and sustained use of deadly force in Bulacan cannot be explained by operational risk or the need for self-defense.

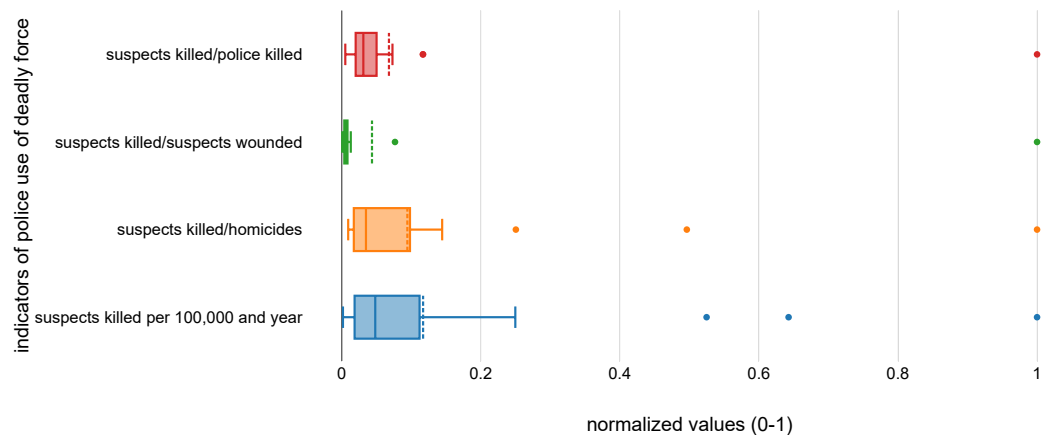
Given that the dataset includes cases of highly violent police forces, the boxplot illustrates that the dramatic distance separating Bulacan during the War on Drugs from the rest of cases must be systemic and that the extremely high and systemic excessive use of deadly force cannot be justified by operational risks or self-defense imperatives.

11 It is important to note that countries engaged in large-scale drug wars often experience significant casualties among law enforcement personnel. Mexico serves as a prime example, having been embroiled in an exceptionally violent war on drugs for years. According to *Causa en Común*, this conflict resulted in over 2,600 police officer deaths between 2018 and 2023. However, these figures don't differentiate between on-duty and off-duty killings, nor do they distinguish between officer-involved shootings (OIS) and other contexts (*Causa en Común* no year).

More conservative estimates based on media analysis suggest 679 police officers were killed in OIS from 2020 to 2022, averaging over 200 deaths per year (Correa et al. 2024).

Put simply, the Mexican and other cases clearly establish that a WoD with many victims on the side of drug-cartels also results in significant numbers of deaths on the side of the police.

Figure 8: Bulacan WoD period use of deadly force indicators in international comparison



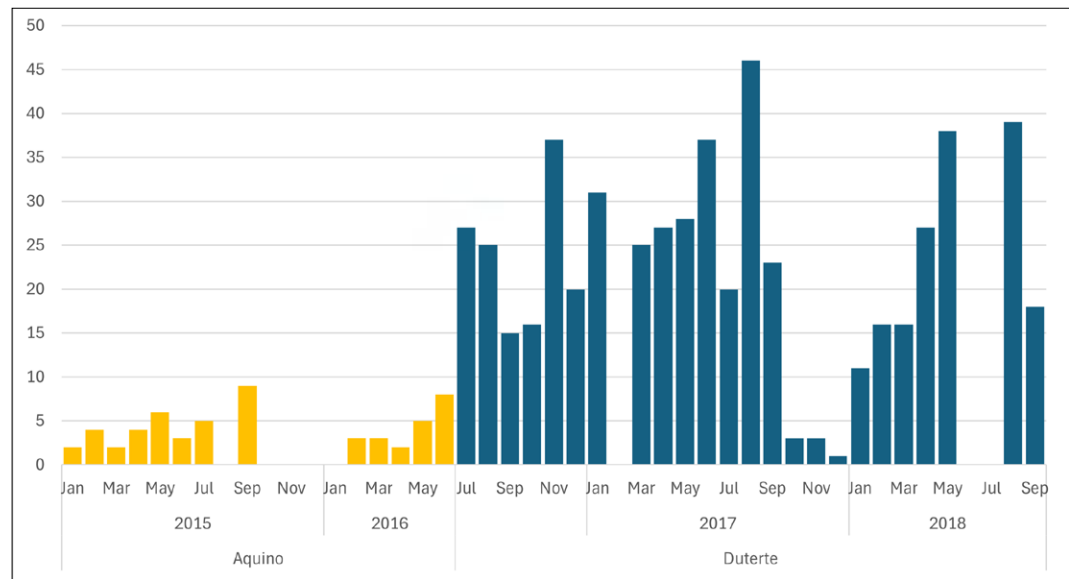
8. THE RESPONSIBILITY OF THE NATIONAL LEADERSHIP

This leaves us with the question, whether the rise in magnitude of Bulacan police use of deadly force from July 2016 onwards and further developments have been caused by the national government's War on Drugs or by local determinants.

In the absence of official orders from the government or national police leadership to kill suspects, any assessment of vertical top-down responsibility has to go by detours. Two indicators are crucial in this respect, as they show in how far local dynamics followed or differed from national dynamics. Similarity between local and national dynamics strongly points to higher up command responsibility, whereas significant variation between the two would suggest local dynamics at play. Thus, the following analysis focuses first on Bulacan PNP reaction to the declaration of the War on Drugs at the first day of Duterte's presidency and two critical periods, when overall police use of force receded at later points in the campaign.

8.1 Bulacan Police Reaction to the Declaration of a War on Drugs

During the 18 months before Duterte initiated the War on Drugs on July 1, 2016, the use of deadly force by the Bulacan police remained relatively stable, with 35 killings recorded in 2015 and 21 in the first six months of 2016 (see figure below). However, a slight indication of change emerged in May 2016. In the months leading up to May, the number of killings was notably low, with only eight deaths reported between January and April 2016 (an average of two per month). This figure rose significantly to 13 deaths in May and June combined, averaging 6.5 deaths per month.

Figure 9: Suspects killed by Bulacan PNP in OIS

Source: Bulacan PNP reports, coded by the author; February 2017, June, July 2018: missing data.

Despite this modest rise in the last months of the Aquino presidency, the most significant shift occurred suddenly in July 2016, when Rodrigo Duterte took office as President. While the average monthly death rate during the 18 months prior to Duterte's presidency was 3.1, this figure surged to 23.3 deaths per month during the first six months of the War on Drugs. It increased even further to an average of 29.6 deaths per month from January to September 2017 (excluding February due to missing data).

This abrupt and dramatic rise in killings beginning on July 1, 2016, indicates that local police were responding to new national directives and rapidly adjusting their practices to align with the Duterte administration's policies.

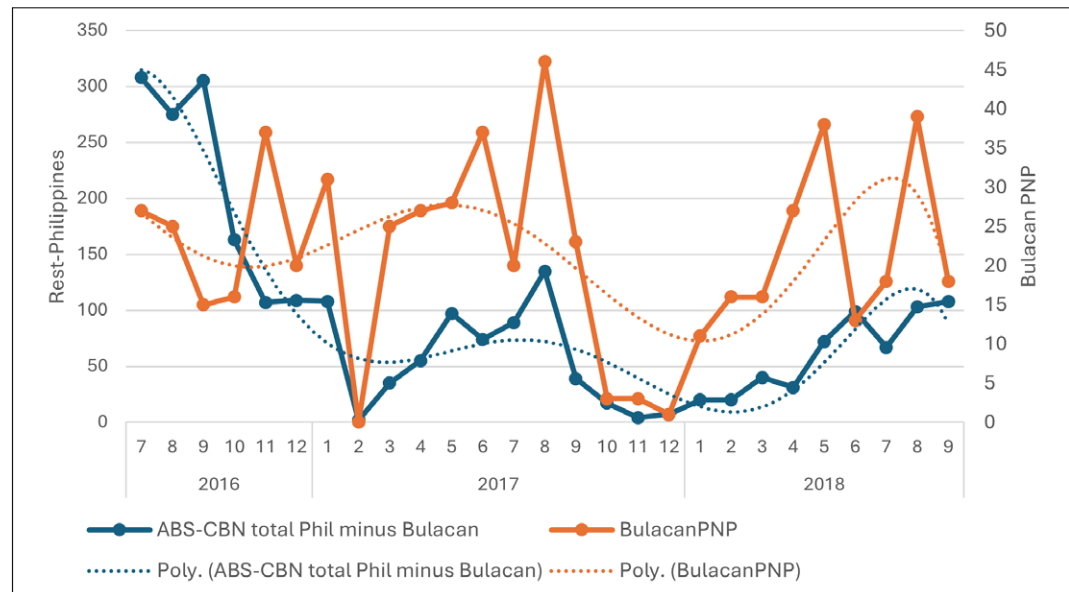
8.2 *Bulacan Use of Deadly Force during the War on Drugs in Comparison to the Rest-Philippines*

Comparing Bulacan's data on police use of deadly force with national figures is challenging due to differences in data sources. Bulacan's data is derived from operational reports of the Bulacan PNP, while national data comes from ABS-CBN media reports, which tend to underreport actual numbers. However, it is not to be expected that underreporting impacted on temporal variation during the initial years of the War on Drugs. Additionally, ABS-CBN data only includes drug-related killings, whereas Bulacan's reports encompass various types of deaths from different operations. However, it is estimated that approximately 90% of all killings in officer-involved shootings (OIS) in Bulacan occurred in the context of anti-drug operations. Missing data for three months (February 2017, June, and July 2018) further complicates the analysis.

To partially address these discrepancies, Bulacan PNP data was used whenever possible to establish the magnitude of killings in the province. Missing months were supplemented with ABS-CBN data for Bulacan, assuming minimal deviation between the two sources. For the rest of the Philippines, ABS-CBN data was utilized. Although ABS-CBN's reliance on media searches may slightly underreport Bulacan figures, this impact is likely limited due to high media coverage in the region. The timeline presented for missing months aligns plausibly with trends observed during crucial periods.

The figure below depicts the monthly fatality numbers for all regions of the Philippines excluding Bulacan province (blue line) and for Bulacan (orange line). Added are two dotted trendlines, that smoothen the spikes observable in the monthly data and show the more general trends for the period from July 2016 to September 2018.

Figure 10: Police use of deadly force: Bulacan and rest-Philippines



The blue line depicting monthly changes for the rest of the Philippines appears smoother due to spatial averaging across 82 provinces and over 30 independent cities, as well as larger overall numbers that cancel out local variations. One initial observation of the lines based on monthly data is that Bulacan levels of police use of deadly force was significantly higher than the average of the Rest-Philippines. A look at the trendlines shows an almost parallel movement for most of the time. Only during the initial months of Duterte’s campaign, Bulacan exhibited a slower response compared to other local government units (LGUs), eventually catching up by late 2016.

Two notable periods stand out for both Bulacan and the Philippines:

1. February 2017: A sharp decline in killings followed a public scandal involving the abduction and murder of a Korean businessman by police officers in October 2016. The case, which only became public in January 2017, led President Duterte to dissolve all PNP anti-drug units on January 30, 2017, transferring responsibility for anti-drug operations to the Philippine Drug Enforcement Agency (PDEA). PNP anti-drug operations stopped abruptly until February 27, when limited PNP participation resumed under “Oplan Double Barrel Alpha Reloaded” (Regani 2017, Dharel 2017) This abrupt drop and the subsequent rise in killings in Bulacan in March align closely with changes in national policies, even though the increase was more pronounced in Bulacan.
2. August–December 2017: Public outrage over the widely publicized killing of three teenagers by the police in a so-called anti-drug operation on August 16, triggered widespread protests. Initially dismissed as isolated incident by the government, sustained public pressure forced another temporary shift in policy. On October 10, Duterte ordered all anti-drug operations to be conducted solely by PDEA (Regani 2017). Killings declined significantly in both Bulacan and nationwide until December 5, when a new presiden-

tial memorandum allowed other law enforcement agencies to resume operations. The subsequent rise in killings was slower than previous surges but eventually returned to mid-2017 levels.

Throughout these periods, Bulacan's trends closely mirrored national developments with minor deviations. While slower to reduce violence during policy shifts, its police force responded decisively once allowed to resume active participation in anti-drug operations. These findings suggest that national political leadership maintained control over police use of deadly force in Bulacan as in the rest of the Philippines throughout Duterte's War on Drugs and could have effectively curtailed such practices at any time if desired.

The analysis of the Bulacan PNP's use of deadly force in anti-drug operations suggests that it was consistently under the control of the national government. While this does not necessarily imply that the government explicitly authorized the exceptionally high levels of lethal force observed in Bulacan, it does show that it had the capacity to regulate local police practices at all times – both in Bulacan and across the country.

9. CONCLUSION

The above analysis leads to the following key findings:

1. Pre-Duterte Period: The Bulacan PNP exhibited a tendency for excessive fatal force in buy-bust operations, though this was infrequent.
2. WoD Period: While core indicators (e.g., suspects killed-to-wounded ratio) remained consistent, there was a 20-fold increase in operations resulting in suspect deaths without any measurable threat to police officers.
3. Firearm Confiscations: Before the War on Drugs, suspects surrendered in 60 percent of cases. During the War on Drugs, reports indicated that 92 percent chose to engage in shootouts – a highly improbable behavioral shift given the known 100 percent fatality rate for resisting suspects.
4. Focus on Anti-Drug Operations: The analysis of fatalities in operations and actions not explicitly categorized as buy-bust and drug-related, shows that the majority of those fatalities must be assumed to also have been drug-related. Non-drug related deaths in OIS did not rise, signaling a highly targeted practice of killing only certain types of criminal suspects.
5. Relation to Homicide: Bulacan PNP held a significant share of homicides, making the police the single most important source of violent death.
6. International Comparison: Bulacan police War on Drugs magnitude and characteristics of use of deadly force was highly exceptional in international comparison, surpassing in lethality all other cases, amongst them several that belong to the globally most violent police forces.

The findings point to a single conclusion: most “armed encounters” reported by the Bulacan PNP were in fact one-sided uses of deadly force or extrajudicial executions. While the PNP served as a willing enforcer, ultimate responsibility rests with the national political leadership. This is evident in the sharp rise in killings immediately after Duterte's inauguration, the effective halts to the violence when politically expedient (such as in February 2017 and late 2017), and the swift resumption of deadly force once the national government reinstated police participation in anti-drug operations.

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APPENDIX

The appendix provides the background information to the sources used in the analysis and its limitations.

Data Sources

Bulacan analysis is based on a coding of police reports of individual police operations/actions as provided by Bulacan provincial PNP data on its homepage under the heading of "accomplishments" (<http://bulacanpnp.com/>). Such reports were first uploaded in late 2011 (then still rather incomplete). From 2012 onwards operational reports became extensive with several hundred reports annually. Reporting continued to early 2024. Those reports were downloaded by the author on a continuous basis during the years 2016 to 2024, when Bulacan PNP first stopped uploading content and later closed the homepage. Given the formatting in the original homepage, the reports were copied and then pasted in one word-document for each year.

While no longer online, old versions of the homepage, complete with the inserted reports can still be viewed and downloaded at the web-archive (https://web.archive.org/web/20250000000000*/http://bulacanpnp.com/). Later versions on web-archive do not allow for downloading the reports, however, all reports up to May 2019 can be downloaded from earlier versions of the homepage e.g. - <https://web.archive.org/web/20190530024236/http://bulacanpnp.com/>.

Image 1: Screenshot of the Bulacan PNP homepage

The screenshot shows the Bulacan PNP homepage with a navigation menu at the top: HOME, ABOUT US, ORGANIZATION, WANTED PERSONS, GALLERY, DOWNLOADS, CONTACT US. Below the menu is a "refresh..." button. On the left is a profile of Chito Galvez Bersaluna, Police Colonel and Provincial Director. The main content area is titled "Bulacan's Accomplishments" and includes a link to view "PRESS RELEASES" for the year 2018, with a list of years: 2017, 2016, 2015, 2014, 2013, 2012 and 2011. The current view is for MAY 2019, listing several accomplishments such as "3 Held While 45 Were Gathered In Different Bulacan Police Operations" and "7 Wanted By Law Including The Number 4 And 5 Most Wanted Person (MWP) Provincial Level, Collared On Election Day By Bulacan Cops".

While data is complete for most of the years, it is incomplete for several months, when no or only a small amount of data were uploaded (i.e. February 2017, June/July 2018) – In the wayback machine version further data are missing for the year 2018 (only downloadable are July to December). However, the authors own dataset, downloaded at the time, is complete for 2018 except for June and July, for which only some minor periods have been

uploaded by Bulacan PNP. These months, as also February 2017, have therefore been completely omitted from the analysis.

Structure of the Uploads of Bulacan PNP reports

Uploaded by Bulacan PNP were more or less detailed reports on all major operations whether initiated by the PNP (as buy-bust) or police response. Typically, information was provided on what happened and when, in which context with some detail of the operation, the criminal allegations, the names of suspects killed, wounded or arrested and, if known, also their age and their home address (municipality, barangay), as well as on all confiscated items. Given that even rather minor transgressions of the law were reported in some detail, one may assume that the reporting on major operations is complete.

Example of a report

2 Suspects Arrested By Bulacan Police For Violation Of Ra 7183

CAMP GEN ALEJO S SANTOS, City of Malolos, Bulacan --- Two (2) suspects were arrested by Bulacan Police in separate incidents of Violation of RA 7183 in Bocaue and Malolos on December 30, 2018.

PSSUPT CHITO BERSALUNA, Provincial Director of Bulacan PNP, identified the arrested suspects as Blandino Cao y Julia, 50 years old, resident of Brgy Binang 1st, Bocaue, Bulacan and Tina Arribay Maglasang, a resident of Brgy. Bangkal, City of Malolos, Bulacan.

Based from the report, prior to the incident on December 30, 2018, about 5:30 PM, an information was received by Bocaue MPS that there were individuals selling illegal firecrackers along Mc Arthur Hi-way corner Sitio Bihunan, Brgy Binang 1st, Bocaue, Bulacan. Upon receipt of said information, operatives of Bocaue MPS were dispatched to verify the report. They proceeded to Sitio Bihunan and noticed individuals running towards the grassy areas. They followed them until they reach the shanty houses where they saw the suspect Blandino and three others on the act of manufacturing atomic firecrackers. Suspect ran away and while being chased by operating elements, suspect Blandino drew his firearm and fired towards the police operatives, the latter retaliated that wounded Blandino on his leg.

Confiscated from Blandino is one (1) Smith & Wesson Caliber .38 revolver loaded with four (4) live ammunitions and a sack of illegal firecrackers with estimated amount of P8,000.00, itemized as follows: 7 reams Pla-pla;1000 rounds Sawa;4 pieces Good-bye Philippines;1 sack 5-star triangle;6 packs Pla-pla. The suspect was rushed to Dr. Yanga's Hospital in Bocaue, Bulacan for medical treatment and later on transferred to Rogaciano Memorial Hospital in Sta. Maria, Bulacan who is now in stable condition.

The arrested suspect is now escorted by the members of Bocaue MPS while appropriate case is now being prepared against him and his cohorts. Confiscated firearm and live ammunitions will be brought to Bulacan Crime Laboratory Office for ballistic examination while the illegal firecrackers are now under the custody of the Bocaue MPS for proper disposition.

Meanwhile, Malolos Police reports that, on December 30, 2018 about 2:30 PM in Brgy. Bangkal, City of Malolos Bulacan, personnel of Police Community Precinct 4 (PCP4) of Malolos CPS conducted follow-up investigation on reported firecracker incident that happened on December 28, 2018 in Brgy. Bangkal, City of Malolos, Bulacan, victimizing Chad Aaron Langit y Figueroa, 9 years old. During the investigation personnel of PCP 4 caught the suspect Tina Arribay while selling firecrackers and other pyrotechnic devices outside her house which is not the designated area/zone and selling it without securing license or permit, that resulted to her arrest and confiscation of 3 bundles of Kwitis, 7 pieces of Judas Belt (100 Rds), 190 pieces of Palusis, 3 pieces Pla-pla, 3 piec-

es of Judas Belt (500 Rds of Super Lolo), 2 pieces of Judas Belt (1,000 Rds), 93 pieces of Bawang, 7 boxes of Five Star, 6 pieces of Judas Belt (Round), and 14 cubes of Super Lolo with an estimated value of more or less Php8,000.000.

A case for Violation of R.A. 7183 "Act Regulating the Sale, Manufacture, Distribution and Use of Firecrackers and Other Pyrotechnic Devices" is being prepared by this Station for filing before the City Prosecutor's Office, City of Malolos, Bulacan.

Bulacan Police is continuously and relentlessly implementing its intensified campaign against other forms of criminality as directed by the Chief PNP and the Regional Director of PNP Region 3 PCSUPT JOEL NAPOLEON M CORONEL. (PIO, Bulacan PPO):

Source: <https://web.archive.org/web/20190530024236/http://bulacanpnp.com/>.

Due to the high number of operations during the War on Drugs, Bulacan PNP also used summary reports with the core information presented in tabular format.

Example of 2017 presentation in Tabular format:

UNIT/STATION	DATE/TIME/PLACE	CRIME COMMITTED	ILLEGAL DRUGS AND OTHER PIECES OF EVIDENCE SEIZED	EST. WEIGHT	TYPE OF OPERATION	REMARKS NAMES OF SUSPECT (Indicated if Arrested/killed)
Angat MPS	August 15, 2017/4:00 PM Brgy. Sta Cruz, Angat, Bulacan	RA 9165	two (2) pcs of heat sealed transparent plastic sachet of shabu		Anti-Criminality Checkpoint	1. Bernabe De Guzman Jr y De Guzman (arrested)
Balagtas MPS	August 15, 2017/ 1:00 AM. Brgy. Wawa, Balagtas, Bulacan	RA 9165	twelve (12) pcs of transparent sachets of suspected shabu	4.30 grams	Buy Bust	1. Randy Francisco (arrested)

In a small number of cases summary reports were even less detailed only providing the overall number of operations, names of municipalities and suspects killed, wounded or arrested, thereby not allowing for a detailed and precise coding of time and place.

What was coded

Coded were the date of operation, the number of operations, the type of operation, the type of crime linked to operation number of suspects killed, the number of suspects wounded, suspects arrested, suspects escaped/at large, police officers killed, police officers wounded, whether there was an armed encounter (YES/NO), whether firearms were confiscated (gun/guns), whether drugs were confiscated, the city/municipality of the operation/police action, and, for cases with summary recording of several cases the number of municipalities/cities mentioned as places of operation, the city/municipal police director (often not available), the provincial police director, as well as the police unit(s) (Municipal/City police, PIB, PMFC etc.) responsible for the operation. A copy of the original police report as included in the Bulacan PNP upload was included in the excel sheet, documenting the basis for coding and allowing for replication.

Core Filters applied for Analysis

The most important filter aimed to separate clearly drug-related operations from all others. While there were a small number of operations categorized as anti-illegal drug operation without further qualification, almost all drug-related operations were distinctly classified as “buy-bust” operations. Therefore, the core filter for establishing a dataset on police initiated anti-illegal drug operations was the categorization as “buy-bust” in the Bulacan PNP reports. This proved to be the category of operations that resulted in the vast majority of drug-related killings by Bulacan PNP and overall killings alike (at least during the War on Drugs years). Buy-bust was also coded, if the report mentioned the confiscation of buy-bust money without mentioning that the operation was a buy-bust operation.

A second filter used was the mentioning of an armed encounter, whereby the subgroup of violent buy-busts could be established and its characteristics compared over time (before and during the War on Drugs).

A third core filter applied was whether firearms were confiscated. While this must be always the case in armed confrontations, the confiscation of a gun can also follow a buy-bust in which the suspects peacefully surrenders or any other police operation, thus the relationship between surrender and shoot-out can be ascertained and controlled for with respect to temporal variation.

While these filters define subcategories of operations or police action, several others were used for the analysis of these various subcategories, most importantly the number of suspects killed, wounded, arrested/at large as well as police killed and wounded.

External Data used for Analysis

Relevant other data used are data on homicides in Bulacan, which exist only for the second half of 2016 and on an annual basis for the years 2017 and 2018, as well as respective data for the Philippines, both of which derive from official PNP datasets.

The international comparison is based on data on OIS or, if not available, data on all on-duty police killings, as well as homicide data for a number of cities, states and nations from Latin America, Africa, Europe and Asia. These cases offer a spectrum of deadly police violence that can be empirically observed worldwide, enabling the contextualization of the Bulacan PNP practice.

These data used for establishing the respective indicators of police use of deadly force derive from multiple sources, ranging from police or city government’s annual reports to reports by researchers and research institutions. In most, but not all cases, data are on OIS only. In a small number of cases, totals of deaths due to police intervention were recorded, as sources do not provide separate data on OIS, resulting in a slight overestimation of numbers for those cases.

The following is a list of sources used for the various cases.

Country	Subnational unit	Sources
Australia		Australian Institute of Criminology no year. Statistical Reports. https://www.aic.gov.au/sites/default/files/2024-12/deaths_in_police_custody_2023-24.xlsx ; and: https://www.aic.gov.au/sites/default/files/2025-03/homicide_victims_1989-90_to_2023-24.xlsx

Bahamas		Royal Bahamas Police. Annual Crime Statistics. various years, at: https://www.royalbahamaspolice.org/statistics/ ; In Memoriam Page of Royal Bahamas Police, https://www.royalbahamaspolice.org/inmemoriam/memoriam.html# .
Brazil**		Fórum Brasileiro de Segurança Pública. Anuário Brasileiro de Segurança Pública. Various years, at: https://forumseguranca.org.br/publicacoes/anuario-brasileiro-de-seguranca-publica/ .
Chile*		Monitor Fuerza Letal. Monitor of Use of Lethal Force in Latin America and the Caribbean: Chile 2022, and 2024, at: https://monitorfuerzaletal.com/docs/MonitorFuerzaLetal_2022_Chile.pdf , https://monitorfuerzaletal.com/docs/MFL2024_Chile.pdf .
France		Ministère de L'Interieur et des Outre-Mer. Rapport Annuel de L'Inspection Générale del al Police Nationale. Various years, https://www.interieur.gouv.fr/Publications/Rapports-de-l-IGPN .
Germany		Lorei, Clemens no year. Statistiken zum polizeilichen Schusswaffengebrauch in Deutschland. https://schusswaffeneinsatz.de/download/statistiken%20(6).pdf ; Bundeskriminalamt no year. PKS - Zeitreihen: Opfer bei Straftaten vollendet. at: PolizeilicheKriminalstatistik/2023/Interpretation/Opfer/ZR-O-03-T91-Straftaten-vollendet_xls.xlsx?__blob=publicationFile&v=4.
India		Small Arms Survey 2012. A heavy Hand: The Use of Force by India's Police. Issue brief No. 3. Crime in India Yearbooks; https://www.ncrb.gov.in/crime-in-india-year-wise.html
Indonesia		Baker, Jacqui, Rus'an Nasrudin 2024. Is Indonesian Police Violence Excessive?: The Dynamics of Police Shootings, 2005-2014. Journal of Contemporary Asia 54(2), 181-209; Badan Pusat Statistik various years. Statistik Kriminal. at: https://www.bps.go.id/id/publication .
Jamaica*		Jamaica Independent Police Commission. Quarterly Reports. various, at: http://www.indecom.gov.jm/ ; Bourne, Paul Andrew, Dennis Brooks, Anisha Brisonette 2024. Police Fataality in Jamaica 2013 to 2023: An Epidemiological Profile of the Crime Fighting Dilemma of Police Officers in Jamaica. Global Journal of Transformation in Law, Human Rights and Social Justice 8(1); Monitor Fuerza Letal. Monitor of Use of Lethal Force in Latin America and the Caribbean: Jamaica 2022 and 2024; both at: https://monitorfuerzaletal.com/reports .
Kenya		Kenya National Police Service. Annual Report 2021. https://www.nationalpolice.go.ke/sites/default/files/2024-08/Annual%20Crime%20Report%20-%202021.pdf ; Cano, Ignacio 2022. The Use of Lethal Force by the Police in Kenya (2021). African Policing Oversight Forum, Cape Town, ISBN 978-1-928332-98-5.
New Zealand		New Zealand Police no year. New Zealand Police Officers killed by Criminal acts. https://www.police.govt.nz/about-us/history-and-museum/memorial/officers-killed-criminal-acts ; New Zealand Police. https://www.police.govt.nz/sites/default/files/publications/historic-new-zealand-murder-offences-1926-2022.pdf . Ross Handy, Darren Walton 2022. Police Shootings in New Zealand and England and Wales: A Cross-National Comparison. Policing, Vol 17, 1-12;
South Africa		South African Police Service. Annual Crime Report 2022/23, https://www.saps.gov.za/services/downloads/2022-2023-Annual-Crime-Statistics-Report.pdf ; South Africa Independent Police Investigative Directorate. Annual Report (various), at: https://www.ipid.gov.za/node/12 .
Trinidad and Tobago		Trinidad and Tobago Police Complaints Authority (PCA), Annual Reports. various, at: https://www.pca.org.tt/information/publications/publications-category/2 ; Crime and Problem Analysis Unit, Trinidad and Tobago Police Service no year. Stats. at: https://www.ttps.gov.tt/Stats/Comparative-Chart ; Central Statistical Office no year. Crime Statitistics. at: https://cso.gov.tt/subjects/population-and-vital-statistics/crime-statistics/ .
United States		Police Officers killed: LEOKA datasets https://www.fbi.gov/how-we-can-help-you/more-fbi-services-and-information/ucr/leoka ; Suspects killed by Police: Washington Post no year. Police Shootings database. at: https://www.washingtonpost.com/graphics/investigations/police-shootings-database/ , raw data at: https://github.com/washingtonpost/data-police-shootings .

Indonesia	Jakarta*	Baker, Jacqui, Rus'an Nasrudin 2024. Is Indonesian Police Violence Excessive? The Dynamics of Police Shootings, 2005-2014. <i>Journal of Contemporary Asia</i> 54(2): 181-209.
England	Greater London	Independent Office for Police Conduct no year. Deaths during or following Police Conduct. Statistics for England and Wales. Time series tables 2004/5 to 2022/23. Metropolitan Police. Police Remembrance Trust no year. UK Police Roll of Honor. https://policememorial.org.uk/search/ . London Datastore, Metropolitan Police no year. MPS homicide dashboard: Homicide Victims. https://data.london.gov.uk/download/mps-homicide-dashboard-data/ea8e62d4-e276-4f66-b357-42ab6d-b0e11b/Homicide%20Victims%202003%20-%20September%202024.csv
Brazil	Sao Paulo State	Secretaria de Segurança Pública de São Paulo – SSP no year. Estatísticas Trimestrais. at: https://www.ssp.sp.gov.br/estatistica/dados-trimestrais .
Brazil	Sao Paulo City	Secretaria de Segurança Pública de São Paulo no year. Estatísticas Trimestrais. at: SSPhttps://www.ssp.sp.gov.br/estatistica/dados-trimestrais .
Argentina	Greater Buenos Aires	Centro de Estudios Legales y Sociales. Violencia Policial no year. at: https://www.cels.org.ar/web/letalidad-policial-estadisticas/ .
South Africa	Gauteng	South African Police Service. Annual Crime Report (various). https://www.saps.gov.za/about/stratframework/annualreports.php . South African Police Service 2025. Police Recorded Crime Statistics: Republic of South Africa. 2024, https://www.saps.gov.za/services/downloads/2024/2023-2024%20Annual_Financial%20year_WEB.pdf
South Africa	KwaZulu-Natal	South African Police Service. Annual Crime Report (various). https://www.saps.gov.za/about/stratframework/annualreports.php . South African Police Service 2025. Police Recorded Crime Statistics: Republic of South Africa. 2024, https://www.saps.gov.za/services/downloads/2024/2023-2024%20Annual_Financial%20year_WEB.pdf
United States	Baltimore	Baltimore Police. Use of Force Data Analysis 2017 to 200, and: 2021 to 2022, https://www.baltimorepolice.org/resources-and-reports ; Officer Down Memorial, https://www.odmp.org/agency/214-baltimore-city-police-department-maryland ; Baltimore Sun.
United States	Chicago City*	Chicago City Police Department. Annual Reports 2021-2023. https://www.chicagopolice.org/statistics-data/statistical-reports/annual-reports/ .
United States	Detroit City*	Detroit City Government. Annual Use of Force Report 2020. https://detroitmi.gov/sites/detroitmi.localhost/files/events/2021-05/2020%20Annual%20Use%20of%20Force%20Report.pdf ; Statistical Appendix https://detroitmi.gov/sites/detroitmi.localhost/files/2021-01/2020%20Year%20End%20Stats.pdf .
United States	Houston	City of Houston Government, Police Department. Officer Involved Shootings. https://www.houstontx.gov/police/ois/ .
United States	Los Angeles City*	Los Angeles Police Department 2023. Use of Force Year-End Review 2022. https://lapdonlinestrgeacc.blob.core.usgovcloudapi.net/lapdonlinemedia/2022-Year-End-Review.pdf .
United States	Memphis	Memphis Police. Inspectional Services Annual Report (various). https://www.memphispolice.org/policies-and-procedures/inspectional-services/ , FBI Uniform Crime Reporting - https://ucr.fbi.gov/crime-in-the-u.s/ ; FBI Crime Data Explorer. https://cde.ucr.cjis.gov/LATEST/webapp/#/pages/explorer/crime/crime-trend .
United States	New Orleans	New Orleans Office of the Independent Police Monitor. Annual Reports. https://nolaipm.gov/annual-reports/ ; FBI. Crime in the United States (various years. FBI. Crime Data Explorer. https://cde.ucr.cjis.gov/LATEST/webapp/#/pages/explorer/crime/crime-trend
United States	New York City*	New York City Police Department 2024. Use of Force Report 2023. https://www.nyc.gov/assets/nypd/downloads/pdf/use-of-force/use-of-force-2023.pdf .
United States	Philadelphia	Philadelphia Police Department. Officer Involved Shootings. at: https://www.phillypolice.com/accountability/ois/ ; Officer Down Memorial (no year. https://www.odmp.org/ . Philadelphia Police Department. at: https://www.odmp.org/agency/3101-philadelphia-police-department-pennsylvania ; Philadelphia Police Department. Crime Data. at: https://www.phillypolice.com/crime-data/crime-statistics/ .

United States	St. Louis	Saint Louis Police Department. Homicide Analysis (various), https://slmpd.org/homicide/#h-homicide-statistics . Saint Louis Police Department. Fallen Officer Memorial. https://slmpd.org/fallenofficermemorial/ ; ArchCity Defenders. Fatal State Violence Project. Police Killings Dataset, https://www.archcitydefenders.org/wp-content/uploads/2021/01/FSV-DATASETS_-Killings-by-Police-Greater-St.-Louis-Area-2009-2019-.xlsx ; Washington Post no year. Fatal Force, https://github.com/washingtonpost/data-police-shootings/tree/master/v1 .
United States	Washington D.C.	Washington DC Government, Office of Police Complaints. Report on the Use of Force by the Washington, D.C. Metropolitan Police. Various years, at: https://policecomplaints.dc.gov/page/use-force-reports .
United States	San Diego County	San Diego County Sheriff's Department. Use of Force Statistical Report. Various years, https://www.sdsheriff.gov/resources/open-data/use-of-force-report .
United States	Michigan State	Michigan State Police. Use of Force Report. Various years. https://www.michigan.gov/msp/public-information/transparency/use-of-force-reports ; Officer Down Memorial. https://www.odmp.org/agency/2479-michigan-state-police-michigan .
United States	Oklahoma State (excl. Oklahoma City)	Oklahoma State Bureau of Investigation no year. Use of force dataset: https://oklahoma.gov/content/dam/ok/en/osbi/documents/sac-documents/use-of-force/Use-of-Force%20in%20Oklahoma%202021.pdf .
United States	Texas	Attorney General of Texas. Annual Report on Peace Officers Involved Shootings. https://www.oag.state.tx.us/open-government/open-reports-and-publications
United States	Puerto Rico	Luis A. Avilés, Mari Mari Narváez, Luis Emilio Muñoz, Aharhel E. Alicea Holandez y Lauce E. Colón 2022. Licencia para Matar: Muertes por uso de fuerza policial en Puerto Rico, 2014-2020. www.kilometro0.org ; https://static1.squarespace.com/static/5af199815cfd796ad4930e20/t/637e7098df9a71511888d5ae/1669230746987/2022.11-Informe+Licencia+para+matar.pdf .

Limitations to the International Comparison

The international comparison can only provide approximations for a number of cases due to data limitations. Furthermore, the original data collection methods have varied significantly. While some cases benefitted from comprehensive police annual reports providing a sound basis for all or most data, a small number of cases rely on datasets established by research institutions utilizing online searches, which are less precise and tend to underestimate both the number of incidents and the number of victims. In addition, police casualty rates are often difficult to obtain; for several U.S. cases, data was for example retrieved from the National “Officer Down Memorial Page.”

Even in well-documented cases, such as Jamaica, where the Independent Police Commission (INDECOM) provides detailed quarterly overviews of fatal and non-fatal shooting incidents, data incompleteness persists. INDECOM’s statistics sometimes do not differentiate between security forces, as in the case of non-fatal shootings where the Constabulary’s share is not specified. However, given that the Constabulary accounts for 90 percent of all victims in fatal and non-fatal officer-involved shootings, the author opted to use the overall numbers for all forces, a choice that does not significantly affect the results. Furthermore, INDECOM data do not perfectly align with data from the Jamaican Constabulary Force.¹ Although acknowledged, the results using different data sources remain within a similar range. For example, this author calculates a lethality rate of 1.5 for the relationship between suspects killed and wounded (0.6 when reversed) for the period from 2015 to 2023. A recalculation separating on- and off-duty fatal shootings and estimating on-duty non-fatal

¹ See: Weekes, Tarik. Monitor of Use of Lethal Force in Latin America and the Caribbean: Jamaica 2022. And Weekes, Tarik. Monitor of Use of Lethal Force in Latin America and the Caribbean: Jamaica 2024, both available at: <https://monitorfuerzaletal.com/reports>.

shootings by subtracting off-duty non-fatal shootings from the total non-fatal shootings reported for all forces suggests a slightly lower total for both fatal and non-fatal shootings by on-duty Constabulary. However, the recalculated lethality rate for the period from 2015 to 2016 is 1.6, i.e., the deviation from the initial result is less than 10 percent.

In essence, if the differences between cases were comparatively small, the data's imprecision could probably impact the validity of any argument based on comparative analysis. However, given that significant variation exists between cases, this allows for the establishment of three to four distinct levels separating low from high for the initial factors and the constructed indicators as well. The lethality index, for example, constructed by dividing the number of wounded by the number of killed, shows a significant number of cases where the ratio is between 0.5 and 2, followed by a small number of cases with values between 2 and 5, and a single case exceeding five. Thus, in most cases, the number of wounded equals or slightly exceeds the number of killed. Given that in Bulacan, the relationship was 549 killed to 3 wounded suspects, or a ratio of 0.005, the enormous disparity between the Bulacan case and the rest eliminates concerns that Bulacan's values might somehow fall within the spectrum defined by data from other cases, in which case a more precise set of data for each unit would be necessary, if one would go beyond the broad categories of low, middle and high violence national or subnational police-forces.

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