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Breen, J.A. van; Voorde, J.M. ten; Liem, M.C.A.

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Research Note

Understanding Ethnic Disparities in Lethal Police Incidents in the Netherlands Between 2016 and 2020

Jolien van Breen¹, Jeroen ten Voorde¹, and Marieke Liem¹

Abstract
This Research Note outlines a novel approach to studying the role of ethnicity in lethal police incidents (LPI). We take data from the Netherlands, between 2016 and 2020, to show—first—that the representation of individuals with minority ethnic backgrounds in LPI is 350% of what would be expected based on their proportion of the population. Comparisons with other indicators (prison population; homicide) showed that the proportion of individuals with minority ethnic backgrounds was particularly high in outcomes that meet two conditions: (1) the outcome is more serious (vs. less serious), and (2) the authorities are involved (vs. not involved). These findings generate relevant recommendations for future work on lethal police incidents.

Keywords
homicide, police, prison population, victimization, ethnic background

Introduction
This Research Note examines lethal police incidents (LPI) in the Netherlands between 2016-2020. A great deal has been written about police use of force in recent years, particularly when it comes to the groups who are targeted by such force. Under the influence of the Black Lives Matter movement, ethnic disparities in particular have

¹Universiteit Leiden, Netherlands

Corresponding Author:
Jolien van Breen, Institute of Security and Global Affairs, Universiteit Leiden, Turfmarkt 99, 2511DP, Netherlands.
Email: j.a.van.breen@fgga.leidenuniv.nl
come to the fore, in the mind of the general public as well as among academics (e.g. LaFree, 2023). This Research Note builds on this work and aims to make two central contributions. Our first aim is to contextualize findings on LPI, through comparisons with several other outcomes. Crucially, we argue that such comparisons can be used to capture (and quantify) different contributing factors that give rise to ethnic disparities in LPI. We believe this approach can help us move toward a better understanding of how patterns of LPI come about. In this way, this Research Note offers some interesting new directions and recommendations for future research. Second, given that work on the role of ethnicity in LPI victimization is conducted primarily in the Americas (Cano, 2010; GBD Police Violence US Subnational Collaborators, 2021), we aim to give an overview of the status quo in Western Europe, specifically the Netherlands.

**LPI in the Netherlands**

In the Netherlands, LPI claim about 10 victims each year (Timmer & Cozijn, 2016). This is quite substantial when compared to lethal violence between civilians (homicide)—which fluctuates around 120 yearly victims (Aarten & Liem, 2023). In terms of victim characteristics, victims of LPI in the Netherlands are overwhelmingly male, and in many cases substance abuse issues and mental health concerns are evident (Thoonen et al., 2015). Most pertinent to the current study is the ethnic background of victims. On this point, findings from the Netherlands are comparable to findings from other countries (Hirschfield, 2023): across countries members of minority ethnic groups make up a large proportion of victims of LPI (e.g., Brazil, Cano, 2010; the U.S, GBD, 2019). Specifically with regards to the Netherlands, Thoonen et al. (2015) studied deaths in custody of the Dutch police between 2005 and 2010 and find that of 78 total deaths, 17 victims (22%) were members of “non-western” ethnic groups.1 More recently, a police-commissioned report by de Boer et al. (2022) described LPI between the years 2016 and 2020, and find that 46% of cases involved a victim with a non-western ethnic background. Here, we build on the findings from this most recent time-frame, to examine whether the patterns outlined can be described as an over-representation of minority ethnic groups in LPI.

**LPI in Context**

Crucially, beyond (possible) over-representations of minority ethnic groups as victims of LPI, there is evidence that members of minority ethnic groups are over-represented in other adverse outcomes too. For example, in the Netherlands, members of ethnic minority groups are over-represented in the prison population and in arrest statistics (Tonry & Bijleveld, 2007), and make up roughly half of victims of homicide in any given year (47%—Smit et al., 2001; 58%—Ganpat & Liem, 2011).

Previous work from the U.S. has made direct comparisons between the over-representations of minority groups in various different outcomes, as a way to benchmark LPI statistics (Cesario et al., 2019; Geller et al., 2021; Ross et al., 2021; Smith et al., 2022; Tregle et al., 2019). Such comparisons between the representation of minority
ethnic groups in LPI compared to their representation in other outcomes can help put LPI statistics into context, by showing—for instance—that the issues are not unique to the police domain but occur in other domains as well. Further, such comparisons can help us establish whether the representation of ethnic minority groups in LPI can be considered an “over-representation”—which has implications for its interpretation as a consequence of bias, or even racism. In this literature, over-representations of minority ethnic groups in LPI are often established relative to the general population. That is, members of minority ethnic groups are more strongly represented in LPI compared to what would be expected based on their proportion of the population. However, recent work has argued that population statistics are a poor benchmark (Cesario et al., 2019; Tregle et al., 2019), and that other indicators such as arrests, or prison statistics form a more suitable benchmark against which to compare LPI statistics. This approach substantially reduces the apparent over-representation of ethnic minority groups in LPI, because they are more strongly represented in the baseline statistics to begin with. Still, there are also key findings that suggest that over-representations are evident even when using more conservative benchmarks (Ross et al., 2021). In short, this line of work has generated divergent findings and strong debate (Cesario et al., 2019; Ross et al., 2021). A full review of this literature can be found in Oramas Mora et al. (2023), but the key observation for our current purpose is that the choice of benchmark has a strong impact on the study’s findings (Oramas Mora et al., 2023; see also Geller et al., 2021; Tregle et al., 2019).

In this paper, we do not intend to establish the “correct” benchmark or comparison, but rather argue that different comparisons can provide different insights on how ethnic disparities in LPI victimization come about. Specifically, we argue that different comparisons can be used to isolate (and quantify) different factors that give rise to specific patterns in LPI statistics. As an example, let us consider civilian homicide statistics. Like LPI, this is a lethal event, but it differs from LPI in that it occurs between civilians without police involvement. By comparing the representation of minority groups in each of these indicators, we can get a sense of to what extent the police specifically contribute to the representation of minority groups. Are ethnic minority groups more strongly represented in lethal events where the police are involved (LPI) than in lethal events between civilians (homicide)? By choosing specific benchmarks like this, that vary over key dimensions, we can start to isolate the different factors that contribute to patterns of LPI. Our aim in this Research Note is to demonstrate the insight that can be gleaned from this approach, and how it might support a more holistic understanding of LPI. Second, in the academic literature there is little work on LPI originating in Europe. To our knowledge there is no work from Europe that has contrasted LPI statistics with other adverse outcomes. As such, our second aim is to shed much-needed light on this issue in a European context.

The Current Study

We consider four different benchmarks against which to contrast LPI statistics. We consider the general population, but also statistics on suspects of crimes, the prison
population, and homicide statistics. The comparisons this generates capture three key dimensions of LPI, namely the involvement of criminal justice authorities, the seriousness of the outcome, and the lethality of the outcome. Regarding the comparison between LPI and *suspects of crimes*, both of these outcomes reflect contact between civilians and the authorities, but LPI is the more serious lethal outcome whereas being registered as a suspect of crime is a (comparatively) low-level issue. As such, this comparison can provide insight on whether individuals with minority ethnic backgrounds are more strongly represented in more serious outcomes. Second, we compare LPI and the *prison population*. Both LPI and imprisonment are serious outcomes of contact with criminal justice authorities—the most important difference for our current purposes is that one of them is lethal (LPI) and the other is not (prison). As such, this comparison will shed light on whether minority ethnic groups are more strongly represented in lethal outcomes, or is also evident in other serious criminal justice outcomes. Finally, we consider a non-police outcome, namely lethal *civilian* incidents, as captured by homicide statistics (MacDonald et al., 2001). This comparison can shed light on the role of the police in adverse outcomes faced by minority ethnic groups: are members of minority ethnic groups more strongly represented in lethal *police* incidents than in lethal *civilian* incidents?

The research question is: “What is the role of victims’ ethnic background in lethal police incidents in the Netherlands?” We hypothesize that members of minority ethnic groups are over-represented among victims of LPI relative to their proportion of the population (H1). Further, we hypothesize that minority ethnic groups are over-represented in various other outcomes as well (H2), such as suspects of crimes (H2a) and the prison population (H2b). Additionally, we expect that members of minority ethnic groups are over-represented in victims of lethal violence among *civilians* (H2c). If such over-representations are indeed found, we will compare these outcomes to one another to explore how the dimensions of seriousness, lethality, and involvement of the authorities contribute to our understanding of ethnic disparities in LPI. We expect that over-representations of minority groups are strongest where all three of these factors come together. That is, we expect that over-representations of members of ethnic minority groups are more pronounced in LPI than in the other outcomes (H3).

**Methods**

**Ethnic Background**

In the Netherlands, government statistics capture the ethnic background of an individual as “migration background”—including both first and second-generation immigrants. Migration backgrounds are separated into western migration backgrounds, and non-western migration backgrounds. The terminology of western and non-western migration backgrounds is controversial, and in 2022 the Dutch government announced their decision to replace this variable with “country of birth.” For the period under study here, the terminology of “migration background” was still in use. We focus on
individuals with non-western migration backgrounds, which includes all countries in South America, Africa and Asia, except Japan and Indonesia (which are considered western). Western migration backgrounds then cover all countries in Europe (including Russia), North America, Australia, New Zealand, as well as Indonesia and Japan. Regarding the inclusion of Indonesia and Japan as western—in the case of Indonesia this classification is a result of colonial ties between Indonesia and the Netherlands; in the case of Japan the justification is based on economic development. In the Netherlands, the largest “non-western” minority groups are from Turkey (2.4%), and Morocco (2.3%). In addition, there are significant populations from regions with colonial ties to the Netherlands, such as Suriname (2%), and the Caribbean part of the Kingdom of the Netherlands (Aruba; Curacao; St Maarten) (0.9%). The largest “western” group are from Poland (1.1%).

In terms of establishing the migration background of a person who becomes a victim of LPI, this is established post hoc—during the investigation the identity of the victim is formally established (e.g., through their social security number)—a person’s migration background can be accessed by the investigative authorities as part of this process.

**Variables**

**Lethal Police Incidents.** When police officers are involved in a confrontation that results in the death of a civilian, the incident must be reported for investigation to the internal investigative branch of the National Police (*Rijksrechercher*). The National Police periodically commissions independent research organizations to produce reports based on the case files of these investigations. The case files of incidents between 2016 and 2020 are analyzed in the report by de Boer et al. (2022)—the final report is available in the public domain, and it is information from this report on which we draw here. In line with the report, then, our operationalization of LPI includes all cases where a civilian died during or shortly after confrontation with police officers (acting in their official capacity), between 2016 and 2020. This operationalization includes a “gray area” of incidents where the subsequent investigation found the death to have been in part, but not fully, attributable to police action (see Feldman et al., 2017). The large majority (70%) of lethal cases included here occurred when police responded to a call-out. Six cases (12%) occurred when police stopped a civilian who met the description of a wanted individual. Five cases (10%) occurred when the police assisted other first-responders, and finally four cases (8%) occurred when the police were making a planned arrest.

In our analysis, cases of LPI are broken down by migration background of the victim—either none (Dutch); western; non-western or unknown, as outlined above. The representation of members of non-western groups among victims of lethal police incidents, is then compared to their representation in four other categories: (1) the general population, (2) those who are registered by police as the suspect of a crime, (3) prison population, and (4) victims of lethal violence among civilians (homicide victims).
Other Variables. Statistics Netherlands (Centraal Bureau voor Statistiek) offer a number of relevant statistics through their online Open Data Portal. From there, we extracted three variables. First, a general population variable, which captures the Dutch population numbers, broken down by migration background. Second, we extract information on suspects of crimes. The suspects of crime variable captures individuals who—in a given year—were marked as a suspect of crime by police, broken down by migration background. Only unique individuals are included—those who are suspected of several different crimes in the same year are counted only once. The statistics capturing suspects of crimes include—Dutch nationals and residents, but also foreign residents who are in the Netherlands as tourists, international students, or seasonal workers. Third, the prison population variable captures individuals in the prison system in a given year, broken down by migration background. It includes both those who have been convicted and those who are in pre-trial detention. It excludes those being processed under juvenile law. Only unique individuals are counted—those who are in and out of prison several times in the same year are counted only once. The fourth variable captures lethal civilian incidents (Homicide). Information on lethal civilian incidents is extracted from homicide data captured in the Dutch Homicide Monitor (DHM). The DHM is a database curated at Leiden University, which codes all homicide events in the Netherlands on over 80 variables (see e.g., Aarten & Liem, 2023). The Dutch Homicide monitor captures all homicide cases in a given year, including victims who are Dutch residents, as well as seasonal workers and tourists.

Analytical Procedure. The analytical procedure is relatively straightforward. For each outcome, we calculate which percentage of the total number of affected individuals have a non-western migration background. The percentages for the different outcomes are then compared using chi-squared tests, to establish whether any differences between the percentages can be considered significant. Specifically, the chi-squared tests examine how risks faced by non-western groups compared to the risks faced by the rest of the population. The chi-square test calculates, for each group, the probability of being affected by an adverse outcome or not, and then examines whether those probabilities are the same for the two groups—expressed in an odds ratio and accompanied by a significance value.

Results

Table 1 shows an overview of the data. The bottom row shows the representation of individuals with non-western migration backgrounds in each category.

The data show that, compared to general population statistics, members of non-western groups are over-represented as victims of LPI by a factor of 3.5 (13% as compared to 46%). Put differently, their representation as victims of lethal police incidents is 350% of what would be expected based on their population numbers. As such, Hypothesis 1 is supported. Second, in line with Hypothesis 2, similar patterns were evident in the other adverse outcomes: members of non-western groups are 13% of the population but also represent 32.5% of suspects of crimes (H2a), 33% of victims of lethal civilian violence (H2c), as well as 45% of the prison population (H2b). Table 2
Breen et al. shows the inferential tests for these comparisons, and confirms that the victimization rates faced by non-western groups are significantly higher than for the rest of the population.

Hypothesis 3 then requires us to ask whether members of non-western groups are more strongly represented in LPI than in the other outcomes? Indeed, people with non-western migration backgrounds are more strongly represented as victims of LPI than as suspects of crime, by a factor of 1.5 (32.5% vs. 46%). This difference reached significance, $\text{OR} = 1.76$, $\chi^2 (1) = 4.08$, $p = .043$, the over-representation of non-western groups is more pronounced for the lethal outcome (LPI) compared to the less serious outcome (suspect of crime). Second, we compare LPI victims to homicide victims. Those with non-western migration backgrounds are over-represented as victims of lethal police incidents relative to their representation as homicide victims by a factor of 1.34 (33% vs. 46%). That is, the over-representation of non-western groups is more pronounced for the police-related outcome (LPI) compared to the non-police outcome (civilian homicide), although this effect fell short of significance, $\text{OR} = 1.63$, $\chi^2 (1) = 2.78$, $p = .095$. Finally, those with non-western migration backgrounds represent 45% of the prison population, and 46% of victims of lethal police incidents. These percentages are roughly equivalent—a chi-squared test showed no significant difference, $\text{OR} = 1$, $\chi^2 (1) < 1$, $p > .10$. In sum, there was partial support for Hypothesis 3.

### Table 1. Breakdown of the Different Outcomes by Migration Background Between 2016 and 2020 (Aggregate).

<table>
<thead>
<tr>
<th>Migration background</th>
<th>General population</th>
<th>LPI victims</th>
<th>Suspects of crimes</th>
<th>Prison population</th>
<th>Victims of homicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>17,186,291</td>
<td>50</td>
<td>840,670</td>
<td>163,280</td>
<td>609</td>
</tr>
<tr>
<td>Western</td>
<td>1,735,332</td>
<td>7</td>
<td>142,340</td>
<td>31,410</td>
<td>82</td>
</tr>
<tr>
<td>Non-western</td>
<td>2,243,417</td>
<td>23</td>
<td>274,150</td>
<td>73,890</td>
<td>203</td>
</tr>
<tr>
<td>Unknown</td>
<td>3,740</td>
<td></td>
<td>3,740</td>
<td>1,450</td>
<td>37</td>
</tr>
<tr>
<td>% of total with non-western migration backgrounds</td>
<td>13</td>
<td>46</td>
<td>33</td>
<td>45</td>
<td>33</td>
</tr>
</tbody>
</table>

### Table 2. Chi-Square Tests Examining the Probability of Being Affected by an Adverse Outcome for Non-Western Groups Versus the Rest of the Population.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Odds ratio</th>
<th>$\chi^2$</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lethal police incidents</td>
<td>OR=5.70</td>
<td>$\chi^2 (1) = 47.82$</td>
<td>$p &lt; .001$</td>
</tr>
<tr>
<td>Suspects of crimes</td>
<td>OR=3.53</td>
<td>$\chi^2 (1) = 297884.06$</td>
<td>$p &lt; .001$</td>
</tr>
<tr>
<td>Prison population</td>
<td>OR=5.05</td>
<td>$\chi^2 (1) = 150595.29$</td>
<td>$p &lt; .001$</td>
</tr>
<tr>
<td>Homicide victimization</td>
<td>OR=3.47</td>
<td>$\chi^2 (1) = 328.51$</td>
<td>$p &lt; .001$</td>
</tr>
</tbody>
</table>

Note. An odds ratio above 1 indicates that non-western groups are more at risk than the rest of the population.
Discussion

This report aimed to give an overview of LPI in the Netherlands, as well as to demonstrate how we might use comparisons with other adverse outcomes to isolate and quantify different contributing factors that can explain the patterns observed. Our findings show—first—that relative to their proportion of the population, members of minority ethnic groups are over-represented in various adverse outcomes, including LPI, but also in other outcomes such as homicide statistics. It seems, therefore, that members of minority ethnic groups represent a vulnerable group in the Netherlands, not just in interaction with police, but across the board. Previous research has also documented that members of minority ethnic groups face obstacles in the domain of health (Veling et al., 2007), and the labor market (Gracia et al., 2016). As such, it seems that the patterns of LPI observed here are not a stand-alone issue, but are a reflection of wider adversity experienced by minority ethnic groups.

Comparing the proportions of minority group members in the different outcomes (under H3) indicated that the representation of minority ethnic groups increases when two conditions are met. First, minority ethnic groups were more strongly represented when the outcome is more serious (such as LPI and the prison population), than when the outcome is less serious (such as among suspects of crime). That is, the more serious the outcome, the stronger the representation of minority group members. Second, representation of minority groups is greater when the authorities are involved (vs. when the authorities are not involved)—minority ethnic groups were more strongly represented in LPI than in homicide statistics (though this effect fell just short of significance). Recall that these comparisons were chosen to reflect particular “dimensions” of LPI. The findings above, then, indicate that the seriousness dimension, and the involvement of the authorities play a role in producing ethnic disparities in LPI. The contribution of the lethality dimension was less strong, the representation of minority ethnic groups was equally strong in the prison population (non-lethal) as it is in victims of LPI (lethal).

Further work is needed on this topic in future. LPI certainly has other dimensions than the three considered here, and the dimensions are not fully orthogonal—for instance, LPI and suspects of crime indicators differ not only on the seriousness dimension but also on the lethality dimension. Nevertheless, we believe that this novel approach represents a promising way forward for the study of LPI. This new approach is relatively simple methodologically speaking, as well as being conceptually interesting because it allows us to isolate the contribution of specific factors to patterns of police violence. In other words, the approach we apply here can help us better understand why and how patterns of LPI arise. This also means that this approach departs somewhat from discussions of which benchmark is most appropriate to establish over-representations (or not). Instead, our approach suggests that by considering different benchmarks, we can come to understand different components of LPI.

In terms of recommendations for future research on this topic, then, we recommend that researchers carefully and strategically select the other outcomes against which to compare LPI statistics, to extract maximum information from the comparisons they
make. Relatedly, we recommend that researchers dedicate more attention to statistics outside the criminal justice domain that might be a relevant comparison for LPI statistics.

Finally, these findings from Western Europe provide a worthwhile addition to previous research on the topic of ethnic disparities in LPI, which is conducted primarily in the Americas (see Oramas Mora et al., 2023), including Brazil (Cano, 2010; French, 2013) and the U.S. (Feldman et al., 2017; GBD Police Violence US Subnational Collaborators, 2021). Many European countries publish reports on LPI statistics in national languages, which in most cases do not reach the international (academic) audience. Among those that do, information of ethnic disparities is often limited. Relatedly, we are not aware of any work from Europe that has formally compared ethnic minority representation in different indicators. Therefore, we hope our work can make a contribution to facilitating access to European data on this topic (see also the Lethal Force Monitor, Rappert et al., 2021).

Limitations

There were several limitations associated with this study, primarily surrounding data availability. Data access on this topic is often restricted, here we did not have access to raw data, but instead relied on data published in reports commissioned by the police. Concretely, this means that we cannot apply more detailed breakdowns of findings beyond the information offered in the original report. Further, this means that we considered only a timespan of 5 years, and as such the absolute number of lethal police incidents was small. However, very similar patterns are observed in the prison population, which is based on much larger numbers, giving confidence that LPI statistics are not outliers here.

Conclusion

This work studies lethal police incidents in the Netherlands, with a specific focus on the victim’s ethnicity. Our findings lead to three central conclusions. First, members of minority ethnic groups are strongly overrepresented among victims of lethal police incidents, compared to their proportion of the population. That is, in the Netherlands, members of minority ethnic groups are at increased risk of being victims of lethal police incidents. At the same time, we show that similar patterns are visible in non-police outcomes. As such, the effect of ethnicity on LPI victimization does not seem to be specific to the police, but to be part of a broader societal dynamic. Third, our findings shed light on the factors responsible for producing these patterns. We show that the proportion of individuals with minority ethnic backgrounds were particularly high in outcomes that meet two conditions: (1) the outcome is more serious (vs. less serious), and (2) the authorities are involved (vs. not involved). Together, these findings provide insight on LPI in a European context, and—importantly—shed light on the factors responsible for producing these patterns.
Declaration of Conflicting Interests

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ORCID iDs

Jolien van Breen https://orcid.org/0000-0003-2776-7132
Marieke Liem https://orcid.org/0000-0002-2653-4356

Notes

1 The terminology of “non-western” groups is elaborated further in the Methods section on page 7 to 8.
2 Cases where an officer became involved in a lethal event in a private capacity—for example, when they used their service weapon to commit homicide or suicide—were excluded.
3 Statistics on the prison population often include those in immigration detention [vreemdelingenbewaring]. It is reasonable to assume that in this group there are many individuals with non-western backgrounds, and lead to a distorted view of the number of individuals with migration backgrounds in the prison system. As such, it is relevant to note that these individuals were not included in the figures used here.

References


**Author Biographies**

**Jolien van Breen** works as Assistant Professor in the Violence and Violence Prevention research group at Leiden University. Her research focuses on social conflict and violence, with a specific focus on how people manage and navigate these conflicts. Jeroen ten Voorde is professor of criminal law and criminal procedure at Leiden University. His research focuses on issues of substantive criminal law and philosophy of criminal law, among which is a research project on the future of the Dutch Penal Code. Mariëlle Liem is professor of Security and Interventions at Leiden University, where she and her team coordinate the European Homicide Monitor. Her research interests involve interpersonal violence, including domestic homicide, homicide followed by suicide, and international comparative research on lethal violence.