Pathways to Missing Data about Feminicide in Mexico

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Abstract

Feminicide—the intentional killing of women and girls because of their gender—is an urgent human rights and public issue facing Mexico today. Since the issue first became legible in 1993, data documentation efforts have been central to raising awareness about feminicide, as well as studying the scale and patterns of this violence. Despite the importance of data documentation efforts, feminicide is still fundamentally a missing data problem and as a result, the most fundamental questions, such as a the number of feminicides that occurred in a particular time period, are currently nearly impossible to answer. Understanding the current limitations of feminicide data, particularly how and why data becomes missing, is a first step towards improving feminicide documentation in Mexico, as well as developing quantitative analyses to better understand the issue and its downstream implications for population health. This analysis uses an inductive approach based on 26 semi-structured expert interviews to identify and elaborate various pathways that lead data about feminicide in Mexico to become missing. Interview participants identified four major themes that structure missing data pathways in the context of feminicide in Mexico: (1) heterogeneity in definitions of feminicide and their operationalizations; (2) missing information in source materials; (3) inadequate or incomplete contextual information; and (4) the changing character of violence due to the so-called "war on drugs".

Keywords: Feminicide, gender-based violence, mortality, missing data, data quality, Mexico

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Background

Feminicide—the intentional killings of women and girls *because* of their gender—is a pressing human rights and public health issue facing Mexico today. The issue of feminicide became legible in 1993 when local news reported that two young women had been disappeared and subsequently killed in Ciudad Juárez, a city across the US-Mexico border from El Paso, Texas (Castañeda Salgado 2016). The news of these killings did not originally reverberate much beyond Ciudad Juárez, however, in response, activists began documenting disappearances and killings of women and started sharing this information across Mexico. Journalist and women's rights activist Esther Chávez Cano compiled what would become the first database of feminicides in Mexico and the only to document the killings of women and girls in Ciudad Juárez between 1993 and 2003 using information about killings published in newspapers (Socorro Tabuenca C. 2014). Alongside other activists, Chávez Cano used this information to draw attention to the violence occurring in Ciudad Juárez and to highlight the government's failure in solving the cases and bringing the perpetrators to justice. Since 1993, feminicide has gained attention sociologically as an issue of importance to everyday citizens. Additionally, feminicide has been legally recognized as a crime separate from homicide at both the federal (in 2012, as part of the *Ley General de Acceso de las Mujeres a una Vida Libre de Violencia*) and state levels (between 2010 and 2020 each state typified *feminicidio* in their state criminal code).

Since 1993, there have been numerous additional efforts to document feminicides in Mexico. In the tradition of Chávez Cano, activists and civil society organizations have begun their own data collection efforts. For example, digital cartography has become an important tool for documenting feminicide in Mexico and notable examples of the application of this method include: María Salguero's project *Yo te nombro*, Ivonne Ramírez's project *Ellas tienen nombre*, and Sonia Madrigal's project *La muerte sale por el Oriente* (Suárez Val et al. 2019). In addition to statistics published by civil society groups and activists, the *Secretariado Ejecutivo del Sistema Nacional de Seguridad Pública* (Executive Secretary of the National Public Security; SESNSP) began publishing statistics on investigations of feminicide cases in 2015 as part of their crime statistics reporting. Additionally, mortality statistics published by the *Instituto Nacional de Estadística, Geografía e Informática* (National Institute of Statistics and Geography; INEGI) have also been used to identify violent killings of women and girls (Data Cívica 2019, 2022) and to proxy feminicide deaths (Torreblanca and Merino 2017; Frías 2023). This data ecosystem—consisting of crime statistics published by SESNSP, mortality statistics published by INEGI, and the various civil society and activist documentation efforts—serves as the basis for how we understand feminicide in Mexico quantitatively. Despite the advances in naming and documenting feminicide that have occurred in Mexico over the past three decades, there is still much that is unknown about feminicide in Mexico. Trying to answer even the most foundational questions, such as identifying the number of feminicides that occurred in a particular year, are nearly impossible. While data has formed a fundamental role in making feminicide legible in Mexico, feminicide is still fundamentally a missing data problem (D'Ignazio 2024 (forthcoming)).

This analysis builds on the missing data framework proposed by Gargiulo (2022) regarding feminicide data. She proposes that missing data on feminicide operates on two levels: missing fields within documented records and missing observations. The first level pertains to homicides that are documented within the data ecosystem that are missing relevant contextual information that prevent them from being accurately classified as feminicides. This can happen if the relevant contextual fields are not considered at the time of documentation, for example if they do not appear on the death certification form, or, when the contextual fields do exist, if those fields are not filled in. The second level relates to feminicides that are never documented, that is, deaths that fall into the "dark figure" for which there is no record of a violence. This is an empirical reality that is not uncommon in settings of conflict or high levels of violence. For example, indirect estimation techniques such as multiple systems estimation/capture-recapture (e.g., Zwierzchowski and Tabeau 2010; Hoover Green and Ball 2019), retrospective mortality surveys (e.g., Silva and Ball 2006; Alburez-Gutierrez 2019), and excess mortality estimates (e.g., Karlinsky and Torrisi 2023) have been used to estimate the degree of the under-reporting of homicides and other human rights abuses in a variety of contexts. We do not currently know the degree of under-reporting feminicides (and homicides more generally) in Mexico, however, it is unlikely that the data that are missing are unlikely to be missing at random. Some people's deaths are less likely to be recorded or less likely to be recorded completely than others, a result of "selection bias". Selection bias can take many forms, but all forms result in some deaths being more legible to documentation

systems than others.

The non-random nature of the missingness results in a sample that is statistically biased.[1] While we do not currently know the exact natures of the statistical biases impacting feminicide data in Mexico, these biases threaten the validity of statistical inferences about patterns of feminicide. Having theories about how missing data presents itself is an important first step to understanding what we do and do not currently know about feminicide in Mexico. However, understanding *why* data is missing, that is, the pathways that lead to missing fields within documented records or records that are entirely missing, is necessary to understand how we should address missing data concerns in quantitative research.

This analysis aims to explore these missing data pathways so that we can address missing data appropriately in our analyses of feminicide and address some of the challenges that have hindered population health research from examining feminicide in the past. Current demographic literature on the impacts of violence on health metrics (such as life expectancy and lifespan inequality) in Mexico is limited by its almost singular focus on men because men are killed more frequently than women. However, in focusing on magnitude alone, studies taking this dominant perspective often fail to recognize that the killings of men and women are qualitatively different. These gendered differences in experiences of violence are indicative of the "gendered continuum of violence", through which, "men and women die different deaths and are tortured and abused in different ways in war, both because of physical differences between the sexes and because of the different meaning culturally ascribed to the male and female body" (Cockburn 2004, 35–36).[2] For example, in Mexico, women are more frequently killed in private spaces by acquaintances than men, who are more often killed in public by strangers (Data Cívica 2019). Women's deaths are also more often characterized by the use of excessive force (Monárrez Fragoso 2019) and signs of sexual violence than men's deaths are (Data Cívica 2019). Additionally, women are more likely to be killed using blunt objects or strangulation, whereas men are typically killed using firearms (Data Cívica 2019). The gendered components of the violence women experience cannot be deduced from a study of male homicides nor derived from the national average. Furthermore, the generalized violence of the so-called "war on drugs" has changed the nature of the killings of women. Women are being killed in public spaces more frequently and firearms are more commonly used; men's homicides have not undergone changes in their characteristics alongside increases in magnitude (Data Cívica 2022). The dearth of studies focusing on the impact of homicide on women's health obscures the gendered components of their deaths and the changing nature of the characteristics of their killings.

Addressing the gendered aspects of these killings is essential for designing effective public policies for violence reduction; policies targeted at addressing male homicides are unlikely to address the specific forms of violence that women experience. Understanding the current limitations of feminicide data, particularly missing data, is a first step towards improving feminicide documentation in Mexico, as well as developing quantitative analyses to better understand the issue and its downstream implications for population health.

Data & Methods

This analysis uses an inductive approach based on expert interviews to identify and elaborate various pathways that lead data about feminicide in Mexico to become missing. I conducted 24 interviews with 26 individuals in person in Mexico City, Mexico and online between September and December 2022. Experts were recruited into the sample via snowball sampling and were considered for inclusion if they had experience collecting, distributing, or analyzing data about feminicide in Mexico or if they had knowledge or experience related of feminicide cases through the legal system in Mexico. The starting participants were identified through the *Datos contra el feminicidio* community of practice that I am a member of.[3] The 26 experts interviewed

[1]Here "statistical bias" refers to differences between what gets documented, and the unknowable ground truth. These statistical biases may map onto social prejudices, but in many instances they are instead the result of other processes.

[2]While Cockburn's assertion uses sex-based language and focuses on violence that occurs in the context of war as it is conventionally understood, her message is equally salient for studies of the gendered nature of violence occurring in contexts with high levels of violence where there are no formal declarations of war, as is the case in Mexico.

[3]The *Datos contra el feminicidio* (Data Against Feminicide) community of practice brings together researchers, activists, and advocates working on topics at the intersection of feminicide/femicide and data from across the globe. More information about the community of practice is available at: https://datoscontrafeminicidio.net/en/home-2/.

represented a number of different institutional backgrounds including government, civil society, activism, journalism, and international organizations. They also had distinct areas and levels of geographic focus (e.g., some individuals worked at the scale of international comparability of feminicide data, whereas others worked in the contexts of particular cities or states) and some focused on particular victim sub-populations (e.g., feminicides of social movement leaders or lesbian, bisexual, and transgender women). The interviews were semi-structured, but were organized around a shared set of seed questions that focused on feminicide documentation practices, measurement strategies, and challenges to accurate and complete documentation. Interviews were conducted primarily in Spanish, lasted between 45 and 60 minutes on average, and were manually transcribed. Common themes surfaced in the interviews were combined with information from existing literature about feminicide and feminicide data, as well insights from examining feminicide data ecosystem in Mexico to build a more comprehensive narrative about the pathways that result in missing feminicide data and discordance (Suárez Val 2020) across information sources.

Preliminary Results

Interview participants identified four major themes that structure pathways that lead data about feminicides to become missing in the Mexican context: (1) heterogeneity in definitions of feminicide and their operationalizations; (2) missing information in source materials; (3) inadequate or incomplete contextual information; and (4) the changing character of violence due to the so-called "war on drugs".

Definitional and operational heterogeneity

In order to identify and account for feminicide, the concept first needs to be defined and operationalized for these purposes. My work is heavily informed by the sociological definition proposed by Lagarde y de los Ríos (2010). In her work, Lagarde y de los Ríos conceptualizes feminicide in the following way,

> "Feminicide is one of the extreme forms of gender violence; it is constituted by the whole set of violent misogynist acts against women that involve a violation of their human rights, represent an attack on their safety, and endanger their lives. It culminates in the murder of girls and women... Feminicide entails a partial breakdown of the rule of law because the state is incapable of guaranteeing respect for women's lives or human rights and because it is incapable of acting in keeping with the law and to uphold the law, to prosecute and administer justice, and to prevent and eradicate the violence that causes it. Feminicide is a state crime" (Lagarde y de los Ríos 2010, xxiii).

Lagarde y de los Ríos' conceptualization is far from the only conceptualization of feminicide that exists but it is important for how feminicide is understood in Mexico (and else where in Latin America) and describes how feminicide is constructed in the sociological imagination (Mills 2000) of many ordinary citizens, institutions, and organizations in Mexico. I asked all of my interview participants to define feminicide as they consider the concept in their work. All replies highlighted the role of gendered power imbalances, and many invoked the role of the state following the tradition of Lagarde y de los Ríos (2010), but no two definitions were identical. These differences speak to the heterogeneous nature of feminicide definition and have implications for how feminicide is defined for the purposes of data collection, as well as how those definitions are operationalized. Related to heterogeneity, interview participants raised two particular pathways to missing data. First, they frequently discussed heterogeneity in the legal definitions of feminicide in Mexico and the implications for this heterogeneity for counting and comparability of statistics across jurisdictions. In particular, they raised discordance between sociological and legal definitions of feminicide, the implications of each state having its own criminal code that makes use of different legal definitions of feminicide, as well as gaps between law "on the books" and the practical application of the law (Ewick, Kagan, and Sarat 1999). Second, interview participants frequently referenced how different data sources (government crime statistics, vital statistics, and databases compiled by activists and civil society organizations) used different methodologies to operationalize their particular (and often different) working definitions of feminicide. As a result, different institutions may

come to different conclusions about patterns of feminicide because they draw on different source material or identify cases to include or exclude from statistics using different criteria.

Source data incompleteness

Definitions and operationalizations of feminicide tell us what we should look for when evaluating whether a particular death should be classified as a feminicide or as another form of violence, such as a homicide. These definitions are essential to making gender-based violence legible, but they can only be applied to identify feminicide cases when deaths are documented in the varied source information that underpins the current feminicide ecosystem in Mexico. For the mortality data published by INEGI, that source information is the death certificates, for data published by the SESNSP it is reports of feminicide cases from state Prosecutor's and Attorney General's offices, and for civil society activist counterdata efforts, it is an array of information sources ranging from reports of deaths in print media and social media, to information received from the government through information access requests and direct testimony from family and loved ones of victims. Although homicide (feminicide included), is thought to have the lowest level of under-reporting among crime statistics, data on these deaths is still likely to be incomplete.

Borrowing from the types of biases explored by Gargiulo (2022), I explored the specific types of statistical biases impacting the information sources central to the feminicide data ecosystem in Mexico with interview participants. Participants mentioned a number of distinct pathways to missing data that I have grouped into five broad categories: barriers that prevent individuals from reporting on violence when it happens, overburdened institutions, intentional obfuscation, a bias towards the most "horrific" deaths (primarily in media reporting), and notions about who can (and cannot) be a feminicide victim.

Lack of contextual information

Documenting a death is necessary, but insufficient, for determining whether a particular killing should be classified as a feminicide or as another form of violence according to a particular working definition of feminicide. This is because feminicide is defined in relation to the particular context in which the violence occurred. To determine whether a particular violent death should be considered a feminicide, we need to consider information about the victim, perpetrator(s), their relationship, and the particularities of the violence that led up to and culminated in the death (Walby et al. 2017). When this information is missing, it hinders our ability to accurately and comprehensively consider whether particular instances of violence are consistent with our working definition of feminicide. This problem is largely due to missing fields (i.e., necessary information that is not available for documented deaths), but when we go to apply a feminicide definition to a particular database where contextual information is missing, it results in missing feminicide observations. Without the necessary contextual information, feminicides may be classified into other categories, such as intentional or unintentional homicide, which obscure the true gender dimension of these deaths. That is, these data become missing in feminicide statistics despite the fact that the killings were documented in the source data.

In the feminicide data ecosystem in Mexico, missing contextual information takes two forms. In some cases, relevant contextual information is not considered, meaning that there is no accounting of a particular attribute. In other cases, contextual information might be missing, although that information could be recorded (e.g., there is a space on the form to capture this information). In a database, the former situation would indicate a contextual covariate being missing entirely (i.e., there is no column for that variable; the information could not be captured using the instrument that produced the data) and the latter would indicate missing values within covariates documenting contextual information that do appear in the database. In either case it can be difficult to know why information was not captured. The absence of information could indicate that information was not known, but it could also indicate that a particular characteristic of a case was not considered at all. It can be difficult to disambiguate these circumstances, but both challenge accurate and complete feminicide classification with respect to documented deaths.

Changing character of violence in Mexico

While the previously mentioned pathways pose persistent challenges for accurate and complete feminicide documentation in Mexico, several interview participants also explained that the changing nature of violence in Mexico occurring in the context of the so-called "war on drugs" creates additional challenges to feminicide documentation that crosscut the themes that characterize the other pathways.

With relation to measurement and definitions, the emergence of organized criminal violence and drug-trafficking related violence challenge how we conceptualize feminicide and pattern what types of deaths officials are willing to investigate. In particular, the so-called "war on drugs" has further complicated notions of who can be a feminicide victim. Many interview participants explained that the state is unwilling to investigate feminicides that might have occurred in connection with organized criminal violence or drug trafficking: the victims were not "important" enough or because the State has participated in the violence—either actively carrying out violence or passively sanctioning violence through omission and impunity. If the State is unwilling to investigate these crimes, they can never appear in the crime statistics that the State publishes.

With relation to source data completeness, the violent practices used by armed actors, either criminal organizations or the State, further obscure deaths, making them more difficult to document, and have increased the personal risks to individuals who report violence, family members of victims and journalists alike. Many interview participants noted that disappearance is a violent tactic that can be used to obscure homicide or feminicide because an investigation for homicide or feminicide cannot be opened without a body, nor can a death certificate be issued. Put simply, one interview participant explained that, "if you disappear the bodies, there isn't a crime". With relation to feminicide, if a victim is disappeared before they killed and the disappearance is never resolved, that killing will never appear in the data published by the SESNSP as a potential feminicide case, nor will the victim be issued a death certificate corresponding to an entry in the mortality data published by INEGI. Databases compiled by activists and civil society organizations may provide information about these cases not available from official data sources, but without knowing the outcome of a particular case it is difficult to know whether the disappearance resulted in a feminicide.

Finally, the current militarized context challenges how we understand what specific contextual information is relevant to documenting feminicide. The emergence of changing characteristics of violence due to the so-called "war on drugs" forces us to question how we conceptualize feminicide in the context of organized criminal violence. To document feminicides in the context of organized criminal violence, additional contextual information may be necessary. For example, more detailed information about the location where the violence took place (e.g., if the territory was contested between armed groups, the significance of the space where the violence was perpetrated), information about the victim's relationship to organized crime (if any), and investigations into disappearance, forced recruitment, and human trafficking. However, feminicide documentation systems, particularly those maintained by the State, do not currently have the capacity to record such information, which may result in some cases being improperly classified as homicides when they are instead feminicides.

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