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Inés Berniell, Gabriel Facchini y Santiago M. Perez-Vincent

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Data Challenges and Innovations in Measuring Domestic Violence in Latin America and the Caribbean: Traditional Sources and Online Search Patterns*

Inés Berniell† Gabriel Facchini‡ Santiago M. Perez-Vincent§

Abstract

This study examines the challenges of analyzing domestic violence (DV) in Latin America and the Caribbean (LAC) and seeks to improve measurement through two main contributions. First, we collect and describe traditional DV data sources (household surveys and administrative records) across 19 countries. The analysis reveals substantial gaps in data availability, with infrequent and outdated survey efforts in most countries. Nevertheless, surveys confirm high DV prevalence, with at least one in five women reporting victimization in all countries examined, and highlight pervasive underreporting that limits the reliability of administrative crime data. Second, we examine the properties of a novel, high-frequency indicator based on online search behavior: the Google Domestic Violence Index. Using administrative data from eight LAC countries, we find that the index is strongly correlated with calls to DV helplines but shows weaker association with police reports or emergency calls. The evidence suggests that the index captures early-stage, information-seeking behavior and may provide a real-time signal of latent victimization not reflected in official statistics. Our findings underscore the potential of digital data to complement traditional sources and to support more timely, responsive approaches to tracking DV.

JEL Codes: J12, J16, J18, I18
Keywords: domestic violence, Google search

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†CEDLAS-IIE-FCE-Universidad Nacional de La Plata. miberniell@gmail.com
‡Department of Economics, Royal Holloway, University of London. gabriel.facchini@rhul.ac.uk
§Inter-American Development Bank. santiagoper@iadb.org

1 Introduction

Domestic violence (DV) is a pervasive social problem, affecting at least one in four women aged 15–49 in Latin America and the Caribbean (LAC), as well as globally (Bott et al., 2019; Sardinha et al., 2022).[1] This devastating phenomenon not only inflicts immediate harm but also leads to long-lasting negative consequences for victims, their families, and society at large (Campbell, 2002; Kitzmann et al., 2003). Moreover, exposure to DV can normalize violence as a method of conflict resolution, perpetuating the cycle of abuse across generations (Stith et al., 2000). Given the high prevalence, broad repercussions, and intergenerational transmission of DV, addressing this issue constitutes a critical development and public policy challenge for the region.

To effectively reduce and respond to DV, a comprehensive understanding of the issue is essential. A significant barrier to such understanding is the lack of reliable and systematic data on DV's prevalence and characteristics. Challenges including underreporting, social desirability and memory bias, selection bias, lack of comparability, and technical difficulties in data collection hinder the accuracy of both administrative and survey data on DV (Palermo et al., 2014; Cullen, 2023). These limitations result not only in imprecise prevalence estimates but also in constrained insight into the dynamics and consequences of DV, impeding the design, implementation, monitoring, and evaluation of effective policies and interventions (Bott et al., 2019). Addressing these data limitations is therefore vital to improving the effectiveness of government responses to DV.

[1] The Inter-American Convention of Belém do Pará defines violence against women (VAW) as "any act or conduct, based on gender, which causes death or physical, sexual or psychological harm or suffering to women, whether in the public or the private sphere", and then specifies that this phenomenon includes physical, sexual and psychological violence that occurs "within the family or domestic unit or within any other interpersonal relationship", which we consider as DV.(Organization of American States, 1994) The World Health Organization's *World Report on Violence and Health* defines intimate partner violence (IPV) as "any behaviour within an intimate relationship that causes physical, psychological or sexual harm".(Krug et al., 2002) Empirically, our data sources do not all correspond to the same conceptual or legal category. The survey analysis in Section 2 relies mainly on modules that measure women's experiences of IPV, a subset of DV. The administrative series in Section 3 typically record events classified by institutions as domestic or family violence or, more broadly, violence against women or gender-based violence (GBV); in some cases these categories include violence against other family members (such as men or children) and cannot distinguish IPV from other forms of intrafamily abuse. The Google Domestic Violence Index in Section 4 is constructed from searches related to "domestic violence" (*violencia familiar, violencia intrafamiliar, violencia doméstica*) and captures online information-seeking about DV without identifying the precise relationship between victim and perpetrator. Throughout the paper we therefore use the terms DV, IPV, VAW, GBV and family violence in a way that seeks to reflect the underlying phenomenon of each data source, but we acknowledge that such distinction is extremely challenging in practice for most sources.

This study aims to contribute to overcoming these data limitations and to strengthening the understanding of DV in LAC in two distinct ways. First, we collect and analyze data from traditional sources on DV, including household surveys and administrative records, for several countries in the region. This effort contributes to systematizing existing data and provides a general overview of the DV situation in LAC. Second, we examine the properties of a novel indicator based on Google Trends data: the Google Domestic Violence Index (Google DV Index) (Berniell and Facchini, 2021; Anderberg et al., 2022a). This index captures the intensity of online searches related to DV and serves as a complementary data source that may help address some of the limitations of traditional statistics, thereby supporting a more comprehensive understanding of the issue.

In the first part of our analysis, we compile data from several publicly available traditional sources. Specifically, we use information from Demographic and Health Surveys (DHS) (The DHS Program, 2024) and national surveys measuring DV, complemented by the latest wave of the World Values Survey (WVS) (2017–2022) (Haerpfer et al., 2022). This effort yields insights across four key dimensions: the availability and periodicity of DV-related surveys, reported prevalence, attitudes toward DV, and reporting behavior.

We identified and compiled data from surveys on DV conducted between 2008 and 2021 across 18 LAC countries. This process revealed that survey efforts on DV remain sporadic across the region. In some cases, the most recent DHS or publicly available nationally representative survey dates back more than a decade, underscoring the absence of a systematic and sustained approach to collecting and disseminating comparable data across countries and over time.

Despite these limitations, the available surveys confirm that DV is a highly prevalent issue in the region. Although figures are not strictly comparable across countries, the results are nonetheless alarming: in each country included in our analysis, at least two in five women report having experienced victimization by an intimate partner at some point in their lives. In addition, data from the most recent wave (2017–2022) of the WVS highlight the ongoing need to shift societal attitudes: in nearly all countries surveyed, more than 10% of respondents report believing it is acceptable for a man to beat his wife.

National surveys also provide valuable insights into reporting behavior. According to the data, most DV (and particularly IPV) cases remain hidden and unreported. Only

a small proportion of women who experience violence report the incidents or seek assistance. Shame and fear of retaliation emerge as key factors preventing victims from coming forward. Furthermore, in nearly all countries with available data, a significant share of women did not view the incident as serious enough to report or as requiring official intervention. This widespread underreporting significantly affects official statistics and administrative records from services supporting DV survivors. In the five LAC countries with available data (Argentina, Chile, Ecuador, El Salvador, and Mexico), at least two out of every three cases are not reported.

This substantial underreporting, along with the broader limitations associated with survey and administrative data on DV, underscores the need to explore alternative data collection methods. Such approaches can help develop a more complete picture of DV prevalence and dynamics, thereby informing more effective public policy responses. In this context, the second part of our study describes and examines the properties of the Google DV Index.

The Google DV Index is constructed using Google Trends data and measures the volume of internet searches for terms associated with DV. Specifically, the index captures the share of total Google searches in a country that are devoted to the topic of "domestic violence." This method presents several advantages that make it a valuable complement to traditional sources: it offers real-time, high-frequency (weekly) data across multiple countries and subnational areas. In addition, the Google Trends data used to construct the index may be less vulnerable to small-sample bias or to interviewer and social desirability biases, compared to survey data. It is also publicly available, and its use does not entail risks for victims or their families. However, this approach also presents certain limitations (including issues related to internet access, representativeness, keyword selection, and interpretation of search intent), which are discussed in detail in the paper.

To assess the empirical properties of the Google DV Index, we carry out three exercises. First, we compare the index with more traditional sources of information. To this end, we compile administrative data on DV from eight LAC countries (Argentina, Brazil, Colombia, Costa Rica, Ecuador, Mexico, Peru, and Uruguay) and examine its evolution alongside the Google DV Index. The administrative data comprises high-frequency series from three sources: police reports, helpline calls, and calls to emergency services.

We find that the Google DV Index and DV helpline calls exhibit highly similar patterns over time. In the countries examined, the contemporaneous correlation between the Google DV Index and calls to specialized DV helplines is strong. The two series also exhibit remarkably similar monthly and weekly patterns, suggesting that they track the same underlying phenomenon. By contrast, the correlation between the Google DV Index and police reports or 911-type emergency calls is much weaker. This divergence is informative: helplines are confidential, service-oriented channels through which victims (or concerned relatives) primarily seek information, psychological support, and guidance, whereas contacting the police or emergency services constitutes a higher-threshold action that typically reflects acute danger and initiates a formal legal or medical response (Richards et al., 2021). Taken together, the evidence indicates that the Google DV Index mainly captures the earlier, information-seeking stage of help-seeking behavior and, as such, may offer a real-time window on latent victimization and the perceived need for support that remain largely invisible in official crime statistics.

Second, we estimate a set of econometric models to examine whether the Google DV Index can help predict near-term variation in DV helpline calls. This serves as a complementary validation test, building on the earlier evidence of strong comovement between the index and helpline data. The analysis shows that online search intensity is positively and significantly associated with helpline call volumes across all countries, even after accounting for time trends and autocorrelation in the series. These results suggest that Google search data may offer a useful input for nowcasting administrative indicators of DV, particularly in settings where official data are released with delay.

Third, we assess the performance of the Google DV Index during the COVID-19 pandemic, a period characterized by heightened risk of victimization (Miller et al., 2020; Silverio-Murillo et al., 2020). Prior studies have shown that DV-related Google searches increased substantially during lockdowns (Berniell and Facchini, 2021), and that these search patterns more closely tracked helpline calls than police reports in high-income settings (Anderberg et al., 2022b). We contribute to this literature by comparing the Google DV Index to multiple administrative sources (police reports, emergency service calls, and helpline calls) across eight LAC countries. Our findings indicate that, during 2020, the correlation between the Google DV Index and helpline calls strengthened

relative to the pre-pandemic period. In Argentina, Colombia, and Peru, the contemporaneous correlation reached approximately 0.5 and was statistically significant at the 1% level. In contrast, correlations with police reports or emergency service calls remained weak. These results reinforce the interpretation that the index primarily captures early-stage, information-seeking behavior. Furthermore, in countries where helpline data were unavailable, the index still exhibited a clear increase following lockdowns, suggesting a rise in latent distress and potential unmet demand for support. This highlights the potential of the Google DV Index to provide timely, complementary insights into DV dynamics, particularly in contexts where administrative data are limited or delayed.

This paper makes two main contributions. First, it compiles and examines traditional data sources on DV across LAC, including national surveys and administrative records. This effort provides a systematic overview of DV data availability, prevalence estimates, reporting behavior, and societal attitudes, thereby identifying key limitations in current data collection efforts across the region. Second, it evaluates the properties of a novel high-frequency indicator—the Google DV Index—based on DV-related online search activity. Through a series of empirical exercises, the paper shows that the index tracks help-seeking behavior more closely than formal reporting, provides relevant information for nowcasting helpline activity, and can offer timely signals of victimization even in settings with limited administrative data. Together, these contributions aim to improve the understanding and monitoring of DV and to support more responsive public policy interventions.

The remainder of the paper is structured as follows. Section 2 reviews available survey data on DV in LAC, focusing on prevalence estimates, attitudes toward DV, and patterns of underreporting. Section 3 examines administrative data sources from eight countries, including police reports, emergency service calls, and helpline call volumes. Section 4 presents relevant literature on the use of Google Trends to study social behavior and describes the construction of the Google DV Index. It also discusses the limitations of traditional DV data and outlines the potential benefits and caveats of Google-based measurement. Section 5.1 assesses the relationship between the Google DV Index and administrative indicators. Section 5.2 evaluates the extent to which the index can anticipate short-term variation in helpline call volumes. Section 5.3 analyzes the behavior of the index during the COVID-19 pandemic, comparing its evolution to administrative

trends and exploring its role in capturing latent distress where official data are limited or unavailable. Section 6 concludes.

2 Survey Data on Domestic Violence in Latin America and the Caribbean: Sources, Challenges, and Insights

In LAC, population-based survey data on domestic violence (DV) remain fragmented and irregular.[2] Although several countries have implemented efforts to measure the phenomenon, data collection tends to be sporadic and inconsistent across time and space. Despite these limitations, existing surveys provide valuable information on the prevalence, characteristics, and social context of DV in the region.

We compiled and analyzed survey data from 18 LAC countries, drawing from three main sources: Demographic and Health Surveys (DHS), nationally representative surveys on gender-based violence, and the most recent wave (2017–2022) of the WVS.[3] These sources offer a broad set of indicators, including not only self-reported experiences of violence—psychological, physical, sexual, and in some cases economic and digital—but also information on attitudes toward DV, reporting behavior, and barriers to disclosure. While the data are not strictly comparable across countries, they collectively offer a valuable picture of the magnitude and dynamics of DV in the region.

2.1 Survey Data Sources and Availability

Demographic and Health Surveys (DHS)

The DHS are nationally representative household surveys that provide detailed data on a range of population, health, and nutrition indicators. In several countries, DHS have included a specialized module on DV.

[2] Most of the survey evidence used in this section refers to women's experiences of IPV.

[3] In addition, several countries in LAC have implemented UNICEF's Multiple Indicator Cluster Surveys (MICS), which provide harmonized information on child discipline and on attitudes condoning wife-beating. Since the early 2000s, MICS rounds have been fielded in at least Argentina, Barbados, Belize, Bolivia, Costa Rica, Cuba, Dominican Republic, El Salvador, Guyana, Honduras, Jamaica, Mexico, Panama, Paraguay, Saint Lucia, Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruguay, and Venezuela (RB) (see UNICEF (2025)). According to IPUMS–MICS documentation, only the Honduras 2019 and Turks and Caicos Islands 2019 MICS surveys include a full domestic-violence module comparable to the DHS and Women's Health Survey instruments (Kishor et al., 2023).

The DHS began collecting data on intimate partner violence (IPV) in the region in 1990, starting with the Colombia survey. By the early 2000s, the DHS Program had developed a standardized module for collecting data on DV, accompanied by guidelines designed to ensure ethical practices in handling sensitive topics. The inclusion of this module has improved both the quality and comparability of violence data across participating countries.

The DV module typically includes questions about psychological, physical, and sexual violence, and covers experiences both during the respondent's lifetime and in the 12 months prior to the survey. It gathers information on violence perpetrated by the current husband or partner (for women who are married or cohabiting) and by the most recent partner (for those who are divorced, separated, or widowed).

As of 2025, seven countries in LAC have implemented at least one DHS that includes the DV module: Bolivia, Colombia, the Dominican Republic, Guatemala, Honduras, Nicaragua, and Peru. Table 1 summarizes the years in which these surveys were conducted and indicates which rounds included the module.

Table 1: Availability of DHS with Domestic Violence Modules

Country	**Survey Years**
Bolivia	1989, 1994, 1998, 2003‡, 2008‡
Colombia	1986, 1990‡, 1995‡, 2000‡, 2005‡, 2010‡, 2015‡
Dominican Republic	1986, 1991, 1996, 1999‡, 2002‡, 2007‡, 2013‡
Guatemala	1987, 1995, 1997, 1997, 1998–99, 2014–15‡
Honduras	2005–06‡, 2011–12‡
Nicaragua	1998‡, 2001
Peru	1986, 1986, 1991–92, 1996, 2000‡, 2004–06‡, 2007–08‡, 2009‡, 2010‡, 2011‡, 2012‡, 2013‡, 2014‡

Note: ‡ indicates that the survey included a DV module.

However, survey availability is irregular—both across countries and across time. For example, Colombia has included the module in multiple rounds, while Bolivia has included it in two. Moreover, more than a decade has passed since the last DHS including the DV module was conducted in the region—the most recent being Colombia's 2015 survey. Budget constraints have been cited as a key barrier to continuing these efforts.

Although DHS data remain a vital source of information on DV, their limited fre-

quency and coverage present a significant obstacle to consistent monitoring and policy evaluation. These limitations underscore the need to invest in more frequent and standardized data collection, as well as to complement existing efforts with alternative sources.

National Surveys

This subsection reviews national surveys conducted in LAC that include data on DV. Table 2 provides a summary of their availability and geographic scope and Appendix A provides more detailed information on each of the surveys.

The implementation of national prevalence surveys on violence against women that include domestic or intimate partner violence modules has been limited in frequency and uneven across countries. With the exception of Mexico, no country in the region has carried out more than two comprehensive surveys on this topic in the last 25 years. A small number of countries (including Argentina, Uruguay, and Mexico) conducted national or subnational surveys around or after the COVID-19 pandemic, but no new survey rounds have been reported since 2021. These gaps reflect the absence of systematic, institutionalized data collection efforts and pose challenges for monitoring over time.

In terms of geographic coverage, only some surveys are nationally representative. Others focus on urban areas (e.g., Chile), selected regions (e.g., Argentina), or specific demographic groups. This restricts their comparability and generalizability. For instance, Argentina's 2021 prevalence survey, though recent, covered a total of 25 urban cities across 12 provinces, omitting other parts of the country. Chile's ENVIF-VCM survey, conducted just prior to the pandemic, focused exclusively on urban populations. Surveys in Ecuador, Mexico, and Uruguay offer full national coverage across both urban and rural settings.

Survey design and scope also differ considerably. Some instruments are standalone violence surveys (e.g., Argentina, Suriname, Trinidad and Tobago), while others form part of broader health or demographic surveys (e.g., El Salvador's FESAL, Nicaragua's ENDESA). Most surveys include modules on psychological, physical, and sexual violence, but only a subset address economic, digital, or institutional violence. A few recent surveys have expanded their scope to include newer forms of abuse, such as obstetric and political violence (e.g., Ecuador 2019), or detailed contextual information such as aggressor characteristics, locations, and reporting behavior (e.g., Mexico's ENDIREH).

Table 2: Availability and Coverage of National Surveys

Country	**Survey**	**Coverage**	**Availability**
Argentina	Encuesta de Prevalencia de Violencia contra las Mujeres (EPVCM)	25 urban cities of 12 provinces	2021
Bolivia	Encuesta de Prevalencia y Características de la Violencia contra las Mujeres (EPCVCM)	National	2016
Chile	Encuesta de Violencia contra la Mujer en el Ámbito de Violencia Intrafamiliar y en Otros Espacios (ENVIF-VCM)	Urban areas of the 16 regions	2020, 2024
Dominican Republic	Encuesta Experimental sobre la Situación de las Mujeres (ENESIM)	National	2018
Ecuador	Encuesta Nacional sobre Relaciones Familiares y Violencia de Género contra las Mujeres (ENVIGMU)	National	2011, 2019
El Salvador	Encuesta Nacional de Violencia Contra las Mujeres (ENVCM)	National	2017
Guatemala	Encuesta Nacional de Calidad y Bienestar de los Hogares (ENCABIH)	National	2023
Grenada, Guyana, Jamaica, Suriname, and Trinidad and Tobago	Women's Health Surveys / Women's Health and Life Experiences Surveys (WHS/WHLES)	National	2016–2018
Honduras	Encuesta Nacional Especializada de Violencia contra las Mujeres y Niñas (ENESVCMN)	National	2022
Mexico	Encuesta Nacional sobre la Dinámica de las Relaciones en los Hogares (ENDIREH)	National	2003, 2006, 2011, 2016, 2021
Nicaragua	Encuesta Nicaragüense de Demografía y Salud (ENDESA)	National	2011/12
Paraguay	Encuesta Nacional sobre la Situación de las Mujeres (ENSIMUP)	National	2021
Peru	Encuesta Demográfica y de Salud Familiar (ENDES)	National	2023
Uruguay	Encuesta Nacional de Prevalencia sobre Violencia Basada en Género y Generaciones (ENPVBGG)	National	2013, 2019

Note: See Appendix A for more detail on surveys. The list includes the latest available national surveys with data on IPV prevalence.

Moreover, some efforts follow standardized international or regional methodologies. The Women's Health Surveys / Women's Health and Life Experiences Surveys implemented in Grenada, Guyana, Jamaica, Suriname, and Trinidad and Tobago, for example, adopt a common CARICOM/UN Women/IDB model designed to support regional comparability across the Caribbean. Mexico's ENDIREH has been conducted regularly since 2003 using a consistent framework under the national statistical agency.

Despite their differences, these national surveys provide valuable contextual and methodological lessons. However, their limited frequency, variable scope, and partial coverage highlight the continued need for more regular, harmonized, and comprehensive data sources to inform evidence-based policymaking on gender-based violence in the region.

2.2 Challenges and Limitations of Survey Data on Domestic Violence

Despite their analytical value, population-based surveys face several well-documented limitations that constrain their use for real-time monitoring and cross-country comparison of DV.

Underreporting. DV is frequently concealed, occurring within private settings and involving known perpetrators. Indeed, three-quarters of all violence against women is perpetrated by intimate partners (Devries et al., 2013). Fear of retaliation, feelings of shame, and the normalization of abuse deter disclosure, leading to sizable underreporting in both household surveys and administrative records (Palermo et al., 2014). Such factors mean that surveys may capture only a fraction of true DV incidence.

Recall and social-desirability bias. Survey questions on past victimization rely on respondents' memory and willingness to divulge highly personal experiences. Recall decay can lead to understatement of violence that occurred in the more distant past, while social desirability may lead respondents to minimize or reframe incidents in the reference period. Experimental evidence shows that improved privacy and anonymity in data collection can substantially increase disclosure of abuse: in one study, IPV prevalence rates doubled in Rwanda (and rose by 39% in Nigeria) when measured with an anonymous list experiment versus face-to-face interviewing (Cullen, 2023). Careful interviewer training and ethical

safeguards (e.g., ensuring privacy during interviews) help mitigate these biases, but they might not eliminate them (Cullen, 2023; Alvarez-Aragón and Champeaux, 2024).

Irregular frequency and publication lags. National prevalence surveys are costly and complex to field. Consequently, as indicated above, most Latin American and the Caribbean countries implement them only once per decade, if at all. The resulting long intervals—and the additional time required to clean, anonymize, and release the data—preclude timely assessment of shocks such as COVID-19 lockdowns or economic downturns. For instance, the lack of recent baseline data meant that researchers had to rely on indirect indicators to infer the pandemic's impact on DV. Infrequent survey rounds thus make it difficult to monitor trend changes in real time or to evaluate policy interventions in a timely manner.

Sampling and coverage constraints. Budget considerations often limit sample size and geographic reach. Several instruments focus on urban areas or specific regions (e.g., Argentina 2021, Chile 2019–20), omitting rural populations where service access and reporting patterns may differ markedly. This selective coverage can skew representativeness: studies indicate that IPV is at least as prevalent in many rural communities as in urban ones (Breiding et al., 2009). Excluding harder-to-reach groups (e.g., women in remote areas or certain high-risk subpopulations) and survey non-response among those groups further bias the estimates. Consequently, "national" survey findings may not fully capture the experiences of women outside the major metropolitan zones (Maheu-Giroux et al., 2022).

Limited cross-country comparability. Although modules such as the DHS follow a harmonized core, national instruments vary in question wording, definitions (e.g., whether economic or digital abuse is included), recall periods, and age brackets. These differences impede direct comparison of prevalence levels across countries or over time without careful adjustment. Even seemingly small discrepancies—such as one survey defining "ever-partnered" women up to age 49 versus another including older ages, or differing reference periods—can yield non-trivial changes in reported rates (Jayachandran, 2015). Analytical techniques exist to improve comparability (e.g., recalibrating indicators or

age-standardizing results), but such ex-post adjustments require detailed microdata and strong assumptions (Maheu-Giroux et al., 2022). Thus, cross-country DV statistics must be interpreted with caution unless consistent definitions and methodologies are used.

Ethical and safety considerations. Ethical protocols require private interviews, specialized training for enumerators, and follow-up support or referrals for respondents who disclose violence. These safeguards are essential to protect participants, but they increase fieldwork costs and logistical complexity. Stringent ethical requirements also constrain the use of phone- or web-based surveys that might otherwise fill data gaps between in-person rounds, since remote modes make it harder to ensure privacy and safety. In short, violence prevalence research must prioritize "do no harm" principles (Ellsberg and Heise, 2002; Cullen, 2023), which can limit flexibility in data collection. While necessary, these measures contribute to slower survey implementation and longer intervals between waves, further limiting the utility of surveys for rapid monitoring.

These limitations underscore the need for complementary data sources—such as administrative records and high-frequency digital traces—to obtain a more complete and timely picture of DV dynamics in the region.

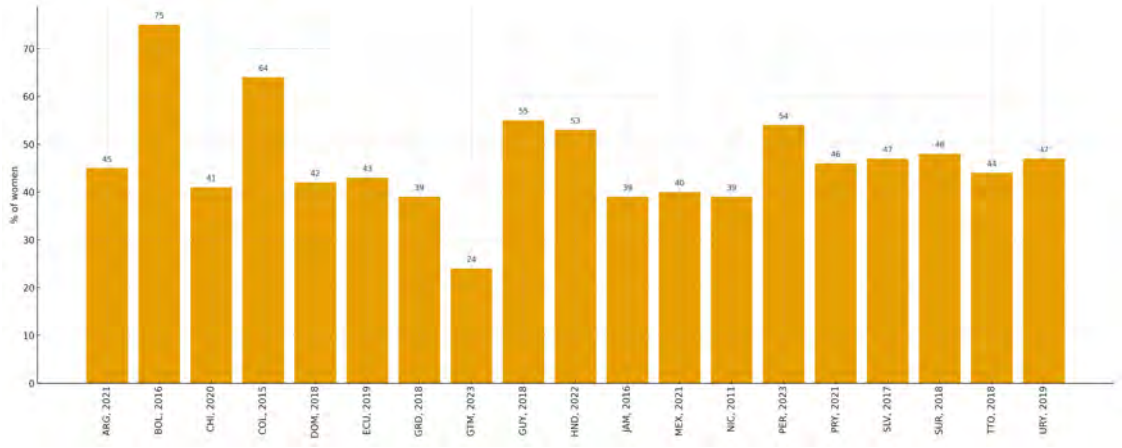
2.3 Insights from Surveys on Domestic Violence

At least one in three women in LAC have experienced domestic violence in their lifetime

Based on DHS and national surveys, Figure 1 presents estimates of the lifetime prevalence of DV across 18 LAC countries. Although these figures are not strictly comparable due to differences in survey design, target populations, and definitions of violence, the overall patterns are informative. In all countries included, at least 39% of women reported having experienced some form of violence by an intimate partner at some point in their lives, with the sole exception of the latest figure for Guatemala.[4]

[4]The most recent national survey in Guatemala (ENCABIH 2023) reports a lifetime IPV prevalence of 23.9% among women aged 15 and over. Earlier DHS-based estimates (ENSMI 2014–2015), harmonized through the GenLAC–CEDLAS database, report a substantially higher figure of 57% for ever-partnered women aged 15–49.

Figure 1: Domestic Violence in Latin American countries: Women Who Have Ever Experienced Some Type of Violence by Their Partners



Note: **Figures are not comparable across countries due to differences in survey design, target populations, and definitions of violence.** Colombia (COL), Nicaragua (NIC), and Peru (PER): women aged 15–49 years; psychological, physical, or sexual IPV. (Source: GenLAC–CEDLAS from DHS.) Grenada (GRD), Guyana (GUY), Jamaica (JAM), Suriname (SUR), and Trinidad and Tobago (TTO): ever-partnered women aged 15–64 years; psychological, physical, sexual, and economic IPV ("any IPV"). (Source: Caribbean Women's Health and Life Experiences Surveys) Argentina (ARG), Bolivia (BOL), Chile (CHL), Dominican Republic (DOM), Ecuador (ECU), El Salvador (SLV), Guatemala (GTM), Honduras (HND), Mexico (MEX), Paraguay (PRY), and Uruguay (URY): data from national surveys. Argentina: women aged 18–65 years. Bolivia: women aged 15 and over (EPV 2016). Chile: women aged 15–65 years. Dominican Republic: women aged 15 and over (ENESIM 2018). Ecuador and Mexico: women aged 15 and over. El Salvador: women aged 15 and over (ENVCM 2017). Guatemala: women aged 15 and over (ENCABIH 2023). Honduras: women aged 15 and over (ENESVCMN 2022). Paraguay: women aged 18 and over (ENSIMUP 2021). Nicaragua (NIC): women aged 15–49 years (ENDESA 2011/12). Uruguay: women aged 15 and over.

At least two out of three domestic violence cases are not reported

Several of the surveys asked women whether they reported the violence they experienced or sought help. Across countries, reporting rates remain low. In Argentina, 23% of women who experienced any form of DV reported it to the police; this figure rises to 34% for physical violence. In Chile, 29% of women reported physical violence, and 16% reported sexual violence. In the Dominican Republic, 6.5% of women who experienced any form of violence by their current or last partner sought help from an institution, and 6.1% filed a formal complaint. In Ecuador, 18% of women who experienced physical partner violence filed a report, with similarly low rates for sexual and patrimonial violence.

In El Salvador, 10% of women victims of violence sought some form of institutional help and 6% filed a police report. In Honduras, almost nine in ten women (88.6%) who experienced violence in the partner domain did not seek help. In Mexico, the proportion of

victims seeking help was 20%. In Suriname and Trinidad and Tobago, one in three women who experienced physical and/or sexual IPV sought help from an institution. In Grenada, Guyana, and Jamaica, the Women's Health and Life Experiences Surveys and Women's Health Survey likewise show that only a minority of women who experience physical and/or sexual partner violence turn to formal services such as the police, courts, health providers, or hotlines, even when a larger share disclose the violence to friends or relatives (Nicholson and Deshong, 2018; Contreras-Urbina et al., 2018; Watson Williams, 2018). In Jamaica, almost two thirds (63%) of women who had recently experienced physical or sexual partner violence did not seek any help; among *all* victims, about one third reported the violence to the police, 12% contacted health services, and 5% approached the courts (Watson Williams, 2018). In Uruguay, 66% of women who experienced physical abuse spoke to someone about the incident, yet only 12% reported it to the police and 9% to a court.

While these estimates are not directly comparable due to methodological and definitional differences, they consistently indicate significant underreporting. In all cases reviewed, at least two-thirds of DV incidents are not reported through official channels, and in many settings a substantial share of women do not seek help of any kind.

Normalization, shame, and fear deter women from reporting domestic violence

Data from surveys in Bolivia, Chile, Mexico, Peru, Uruguay, Suriname, Trinidad and Tobago, Grenada, Guyana, the Dominican Republic, and Jamaica reveal the main barriers women face in reporting IPV.[5] Across countries, reasons for non-reporting include the normalization of violence, feelings of shame or humiliation, and fear of retaliation.

Shame or humiliation was cited by 18% of women in Bolivia[6], 13% in Chile, 18% in Mexico, 17% in Peru, 9% in Trinidad and Tobago, and 9% in Uruguay, as well as 16% in Grenada, 7% in Jamaica, 15% in Guyana; and 5.4% in the Dominican Republic.

Fear of consequences or retaliation was also commonly reported: 13% in Bolivia[7], 22%

[5]For detailed country evidence, see Nicholson and Deshong (2018); Contreras-Urbina et al. (2018); Watson Williams (2018).

[6]Married or cohabiting women aged 15 and over from the Encuesta de Prevalencia y Características de la Violencia contra las Mujeres (2016).

[7]Married or cohabiting women aged 15 and over from the Encuesta de Prevalencia y Características de la Violencia contra las Mujeres (2016).

in Mexico, 8% in Suriname and Trinidad and Tobago, and 7% in Chile, along with 7% in Grenada, 5% in Jamaica, 15% in Guyana, and 5.5% in the Dominican Republic. In Guatemala, 23% of women who did not report IPV cited fear of consequences, and 18.4% reported shame as the main barrier to seeking help.

A large share of women did not consider the violence serious enough to report. This was the case for 14% of women in Chile, 17% in Trinidad and Tobago, 28% in Mexico, 30% in Suriname, 43% in Peru, and 61% in Uruguay, as well as 16% in Grenada, 37% in Jamaica, 37% in Guyana, and 59.3% in the Dominican Republic. In Guatemala, nearly one in three women (29.4%) who did not report the incident said they did so because they believed it "was not important" or did not affect them. In El Salvador, more than one in three women (35.6%) who did not seek help said the incident "was not important," making normalization the single most common reason for non-reporting. These findings suggest that social norms and the internalization of violence as part of intimate relationships contribute substantially to underreporting.

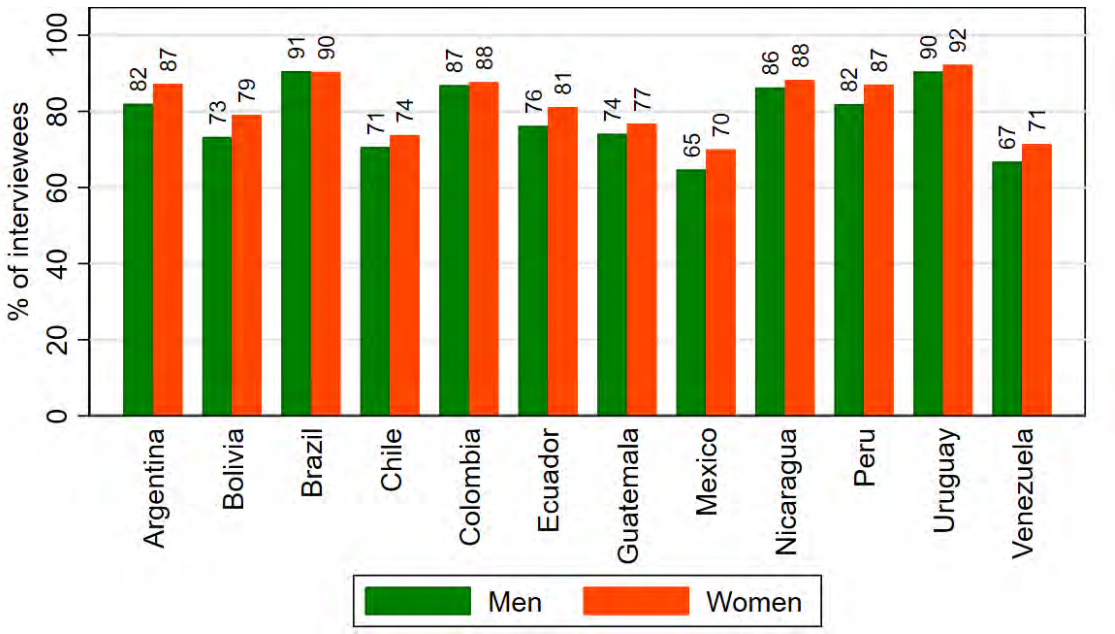
A sizable share of the population justifies wife beating under certain conditions

The WVS (2017–2022) collected attitudinal data on DV by asking respondents whether they believe a man can ever be justified in beating his wife (Haerpfer et al., 2022). This question aims to capture underlying norms and social tolerance for gender-based violence.

As shown in Figure 2, in all countries except Brazil, a higher share of women than men reject the justification of wife beating. However, in most countries, a considerable proportion of both men and women do not completely reject such behavior. For instance, in Mexico, Venezuela, and Chile, only about 70% of respondents said that wife beating is never justifiable. In countries such as Argentina and Uruguay, where rejection is higher (around 90%), still a non-negligible minority accept the possibility of justification under certain circumstances.[8]

[8]These patterns are in line with the regional synthesis presented by Araujo et al. (2024), which documents both the intergenerational transmission of interpersonal violence and the persistence of tolerant attitudes toward such violence in LAC using DHS and WVS data.

Figure 2: Attitudes Towards Domestic Violence: % Responding Husband Beating a Wife is Never Justifiable



Source: WVS (2017-2022) (Haerpfer et al., 2022). Argentina and Bolivia, 2017. Brazil, Colombia, Chile, Ecuador, Mexico and Peru, 2018. Guatemala, 2019. Venezuela, 2021. Uruguay, 2022

3 Administrative Records on Domestic Violence: Sources, Challenges, and Insights

Administrative records on domestic violence (DV) are produced whenever survivors, witnesses, or service providers interact with justice, security, or health institutions.[9] Compared with survey data, these series are typically available at *daily* or *weekly* frequency—permitting analysis of short-term shocks—and are not subject to retrospective recall bias (Card and Dahl, 2011; Leslie and Wilson, 2020). When properly anonymized, they also create minimal additional risk for individuals. However, because record generation depends on help-seeking behavior, institutional capacity, and legal definitions, administrative data capture only a fraction of true DV incidents and therefore remain an incomplete proxy for underlying prevalence (Palermo et al., 2014).

[9]For brevity we refer to these series as DV records, although the legal categories used by institutions often correspond to domestic or family violence or, more broadly, violence against women. The lack of precise protocols and standardized definitions across countries is a challenge for differentiation these different phenomena.

3.1 Sources of Administrative Data

Police reports. These records arise when survivors (or third parties) file a formal complaint with law-enforcement authorities. Because lodging a complaint triggers legal proceedings, police statistics tend to capture more severe or visible cases and are highly sensitive to underreporting barriers, policing protocols, and legal mandates. For instance, research finds that increasing the share of female officers significantly raises the reporting rates of domestic assaults (Aizer, 2010). Conversely, certain well-intentioned laws can inadvertently suppress reports: the introduction of mandatory-arrest policies in some U.S. jurisdictions led to fewer victims coming forward and a subsequent rise in intimate-partner homicides (Miller and Segal, 2019; Iyengar, 2009). Such evidence underscores that police records reflect both the prevalence of violence and the propensity to report it, which can change with institutional practices and reforms (Miller and Segal, 2019; Iyengar, 2009).

Emergency service calls. Calls to emergency numbers (e.g., 911) are logged in real time when immediate assistance is requested. They are frequently associated with acute-risk situations and often spike around critical incidents requiring rapid intervention. Unlike formal complaints, many emergency calls may not culminate in an official report, but they can serve as timely indicators of distress in the community. Variations in call-handling procedures and in the operational definition or classification of DV, however, can affect data quality and comparability across jurisdictions (e.g., what counts as a domestic disturbance call may differ by locale) (Card and Dahl, 2011).

Helpline calls. Dedicated helplines such as Argentina's Línea 144 or Brazil's Ligue 180 provide confidential advice and referrals. As entry points to the support system, they register information-seeking and counseling requests, including many abuse episodes that never reach the police or courts. Call volumes tend to respond strongly to outreach campaigns, public awareness, and service capacity. For example, during the COVID-19 lockdowns, some regions saw domestic-violence hotline usage surge even as police complaints temporarily declined (Perez-Vincent and Carreras, 2022), revealing latent demand for assistance that might otherwise have remained hidden. These helpline data thus offer insight into unmet needs and the broader pool of survivors seeking help beyond the justice

system (Palermo et al., 2014).

Health-sector records. Hospital emergency department visits for assault-related injuries, trauma centre logs, femicide registries, and other clinical data document the physical consequences of DV. Such records are indispensable for monitoring severe outcomes and near-lethal events, but they are usually released at lower temporal frequency and suffer from heterogeneous or under-inclusive diagnostic coding. U.S. national hospital statistics, for example, identify only a small fraction of visits related in intimate partner violence (IPV) because many injuries are miscoded or unflagged (Hsia et al., 2020; Rhodes and Houry, 2009). Nevertheless, these data are crucial for linking service use to health consequences and for tracking the most extreme forms of violence (Campbell et al., 2003).

Justice-system records. Prosecutors' and courts' records on DV or IPV cases capture the small subset of incidents that progress to formal charges, protective orders, or convictions. These data are informative about legal responses and sanctions, but they reflect not only underlying violence but also victims' willingness and ability to pursue a case, evidentiary standards, prosecutorial discretion, plea bargains, and the capacity of the justice system. Case files are typically opened well after the incident and advance slowly through multiple procedural stages, so they are ill suited for high-frequency monitoring of short-term shocks. In addition, judicial statistics are often available only as annual aggregates and use legal categories that vary across jurisdictions. We do not incorporate them into our empirical analysis.

Taken together, the sources span a continuum from early help-seeking to life-threatening injury and legal action. Their complementary strengths and limitations motivate the use of multiple datasets in parallel, rather than reliance on any single indicator as a definitive measure of DV.

3.2 Coverage and Accessibility of Administrative Data

We assembled anonymized daily data for eight LAC countries, with coverage ranging between 2014 and 2022 depending on the source and country. The datasets include up to three types of administrative records described in Section 3—helpline calls, emergency service calls, and police reports—and have been harmonized to a common daily frequency.

Table 3 details, for each country, the institutional origin, period of coverage, and whether the data were publicly downloadable or obtained through formal information requests.

For six countries (Argentina, Colombia, Costa Rica, Ecuador, Peru, and Uruguay) we rely on the database documented in Perez-Vincent and Carreras (2022), which compiles high-frequency, multi-year administrative series on domestic or family violence from official helplines, emergency services, and police forces. We extend this database with Brazil's Ligue 180 and Mexico City's Línea Mujeres, identified through our review of publicly available government data as additional cases with comparable high-frequency, multi-year series. Importantly, the set of datasets examined in this section is not an exhaustive list of all LAC official datasets available. Other countries in the region (including Belize, Chile[10], El Salvador, Guatemala[11], Guyana, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Suriname, and Trinidad and Tobago) collect and publish administrative statistics on domestic or gender-based violence through police, justice, or service bulletins. However these are typically released only as annual or monthly aggregates in reports or spreadsheet tables, and we were not able to obtain microdata to perform the statistical analyses described below.

Helpline calls. Daily series are available for Argentina (Línea 144 and Línea 137), Brazil (Ligue 180), Colombia (Línea 155), Mexico City (Línea Mujeres), and Peru (Línea 100). The data for Argentina, Brazil, Mexico, and Peru were publicly accessible online at the time of collection. By contrast, the Colombian series was obtained through a request to Línea 155. Línea 144 in Argentina is a nationwide, 24-hour service that offers care, support, and advice in situations of gender-based violence. In contrast, Línea 137 focuses on victims and witnesses of DV, and, while the line has countrywide coverage, the data is restricted to the City of Buenos Aires. In Mexico City, Línea Mujeres is a specialized helpline that provides legal and psychological support and coordinates referrals to the

[10]We excluded Chile's Línea 149 to preserve comparability across datasets since we could only obtain monthly data, while all other sources provided daily data.

[11]A notable exclusion is Guatemala's Sistema Nacional de Información sobre Violencia contra las Mujeres (SNIVCM), which publishes detailed administrative microdata on complaints and victims from multiple institutions. In principle, this source would be an ideal candidates for the type of validation exercise we carry out in this section. However, for Guatemala our diagnostic checks indicate that the Google DV Index is measured with low precision: internet penetration remains comparatively limited and the series is characterized by a high frequency of days with zero or missing DV-related search hits, which raises concerns about the reliability of the Google-based indicator for this context (see Appendix C).

Secretariat for Women and other local services. Brazil's Ligue 180, managed by the National Ombudsman for Human Rights, operates continuously to handle complaints, provide legal information, and channel cases to relevant authorities. For Peru, the series covers Línea 100, the national helpline operated by the Ministry of Women and Vulnerable Populations, which offers information and counseling throughout the country.

Police reports. Daily counts of formal complaints of DV (or VAW depending on the source, see Table 3) are available for Colombia, Ecuador, and Uruguay. In Colombia, the data were obtained from the National Police through a formal request and cover reports filed in eight major cities—Bogotá, Medellín, Cali, Barranquilla, Cartagena, Cúcuta, Pereira, and Pasto. Ecuador's data were compiled from police complaints registered by the Fiscalía General, and Uruguay's series were provided by the Ministry of the Interior. The Ecuadorian and Uruguayan datasets were also obtained through data requests.

Table 3: Coverage of Administrative Data on Domestic Violence

Country	**Period available**	**Freq.**	**Data source**	**Source**	**Access**	**Description**
Argentina	1/2017 – 2/2021	Daily	DV Hotline	Línea 137	By request	Family or sexual violence and/or grooming
Argentina	1/2017 – 8/2022	Daily	DV Hotline	Línea 144	Public	Support to victims of gender-based violence
Brazil	1/2014 – 12/2019‡	Daily	DV Hotline	Ligue 180	Public	Support service for women victims of violence
Brazil	1/2019 – 6/2022	Daily	DV Hotline	Linha 100	Public	Human Rights Violations Hotline (Denúncia 100)
Colombia	1/2018 – 8/2020	Daily	DV Hotline	Línea 155	By request	Counselling line for women victims of violence
Colombia	1/2019 – 6/2020	Daily	Police reports	Policía Nacional	By request	Administrative records on domestic/family violence complaints from eight major cities
Costa Rica	1/2018 – 6/2020	Daily	Emergency line	911	By request	Operations center for responding to intrafamily violence
Ecuador	1/2018 – 10/2020	Daily	Police reports	Fiscalía General	By request	Reports of DV, including psychological and physical forms
Ecuador	1/2018 – 6/2020	Daily	Emergency line	911	By request	Integrated Security Service ECU911
Ecuador	1/2018 – 6/2020	Daily	DV Hotline	1800 DELITO (335486)	By request	Gender-based violence hotline
Mexico City	9/2016 – 12/2022	Daily	DV Hotline	Línea Mujeres (765)	Public	Legal and psychological support line operated by the Secretariat for Women
Peru	1/2017 – 12/2021	Daily	Emergency line	Línea 100	Public	Aurora Program – prevention and support services for DV
Uruguay	1/2018 – 6/2020	Daily	Police reports	Ministerio del Interior	By request	Reports of DV complaints
Uruguay	1/2018 – 6/2020	Daily	DV Hotline	0800 4141 / *4141	By request	Specialized Units on Domestic and Gender-Based Violence (UEVDG)

Note: ‡Data for Brazil's Ligue 180 is available until June 2022. However, data after 2019 include reports from additional channels such as Linha 100 and a mobile application. For comparability, we use only the pre-2020 period.

Emergency service calls. DV-related calls to national emergency numbers are available for Costa Rica, Ecuador, and the metropolitan area of Lima (Peru). None of these series were available online at the time of collection. They were obtained through formal requests to national emergency coordination systems or security ministries.

The resulting panel contains more than 18,000 day–country observations. All series are aggregated counts with no personal identifiers, ensuring confidentiality while preserving temporal granularity for empirical analysis. Only six of the thirteen country–source combinations were openly available online at the time of data collection (as of 2021), while the remainder required formal requests or institutional coordination. Data availability may have changed since then. This variation highlights that although administrative records on DV are increasingly produced, comprehensive cross-country research still depends on information requests and collaboration with institutions producing the data. Improving public release practices would greatly facilitate replication, policy monitoring, and timely crisis response.

3.3 Challenges and Limitations of Administrative Data on Domestic Violence

Administrative records—police reports, emergency service calls, and helpline logs—offer near-real-time information on help-seeking behavior. Yet they also present a distinct set of limitations that must be considered when interpreting trends or comparing countries.

Help-seeking bias and selective underreporting. Only incidents that come to the attention of institutions are recorded. Victims' willingness to file a police complaint or call a helpline depends on perceived severity, fear of retaliation, trust in authorities, and the costs of initiating legal proceedings, among other factors (Perez-Vincent et al., 2024; Iyengar, 2009). For example, as indicated above, there is evidence that mandatory-arrest laws in the U.S. ended up decreasing victims' reporting (Iyengar, 2009) while the integration of more female officers in police forces has increased the reporting of domestic assaults (Miller and Segal, 2019). Consequently, administrative counts represent an unknown and potentially shifting share of true incidence, and changes in these counts may

reflect evolving propensities to seek help as much as changes in underlying violence.

Institutional and legal heterogeneity. Definitions of DV, coding schemes, and mandatory reporting rules differ across agencies and over time. A change in legislation, the introduction of specialized police units, or a new call-classification protocol can create structural breaks that mimic or mask real changes in violence. For instance, if a country expands the legal definition of DV to include psychological or economic abuse, reported cases might jump overnight without an actual rise in abuse. Similarly, when law enforcement policies shift (e.g., making arrests mandatory or simplifying complaint procedures), the recorded incidence can surge or decline due to administrative factors rather than behavioral change (Miller and Segal, 2019). Such heterogeneity complicates comparisons: an upward trend in one jurisdiction might signify improved reporting practices rather than a true deterioration in safety, whereas a flat trend elsewhere could conceal underreporting under stricter procedural requirements.

Operational capacity and service disruptions. Call-center staffing, police patrol coverage, and information-system upgrades all affect the number of events captured by administrative systems. Periods of strained capacity or reprioritization can lead to artificial dips in recorded cases. In many women's policy mechanisms, high staff turnover, short induction periods, and deficient record-keeping systems mean that some cases are misclassified or never entered into the database. For example, during the COVID-19 pandemic, some emergency hotlines and police units temporarily redirected resources to public health matters, which lowered their response rate to domestic incidents and thus the recorded volume of DV calls. Conversely, expanding hotline capacity or proactive policing can drive up recorded cases even if underlying incidence is stable. These supply-side fluctuations complicate the attribution of volume changes to shifts in victim behavior alone. Studies during COVID-19 have had to disentangle whether changes in police calls or reports were due to actual prevalence shifts or simply victims' reduced ability to seek help under lockdown (Perez-Vincent and Carreras, 2022; Miller et al., 2020).

Limited contextual and demographic detail. To protect confidentiality, many administrative datasets provide only aggregated counts or highly redacted micro-records.

Where individual-level records exist, key variables—such as victim age, relationship to perpetrator, or incident location—are often missing or inconsistently coded. This lack of detail limits the potential for causal analysis and intersectional assessments. For example, without demographic information, one cannot easily examine whether violence spiked more among younger women during a crisis, or whether rural areas saw different reporting patterns than urban centers. Incomplete data on relationships can even make it hard to distinguish IPV from other family violence in some police statistics. Such data gaps mean that administrative series, while timely, may only provide a broad picture of DV trends.

Restricted access and uneven publication lags. Only a subset of countries regularly publish administrative DV statistics in machine-readable form. Others require formal information requests or provide only high-level figures in annual reports. Moreover, publication schedules vary widely: some police agencies release monthly or quarterly updates, while others might only publicize data long after year-end. These access barriers and lags hamper replication and real-time analysis. Researchers comparing countries may be forced to rely on heterogeneous data sources—official crime reports in one case, hotline data in another—introducing comparability issues. In principle, administrative data could provide a timely pulse on DV, but in practice their usability is uneven. Streamlining data reporting and open access would greatly enhance the value of these administrative records for monitoring DV trends and evaluating interventions.

3.4 Insights from Administrative Data on Domestic Violence

Marked differences in volume across sources

Across countries, the average daily number of DV cases differs markedly across data sources (Table 4). In those instances where two administrative sources are available for the same country, such as Colombia (helpline calls and police reports), Ecuador (emergency line calls and police reports), and Peru (helpline calls and emergency line calls), the relative magnitudes are not consistent. In Colombia, helpline calls yield higher volumes than police reports, whereas in Ecuador police reports are lower than emergency line calls,

and in Peru helpline calls exceed emergency line calls. There is no clear pattern across sources. These differences likely reflect both demand and supply side factors: variation in service accessibility, reporting thresholds, institutional capacity, and users' perceived costs and risks of engagement. For instance, Colombia's national helpline, which began operating in September 2013, expanded considerably in the years following the COVID-19 pandemic, illustrating how changes in demand for services and the scale of institutional supply shape observed reporting levels.

Table 4: Administrative Data: Daily Means

	All	Weekday	Weekend
Panel A. DV helpline calls			
Argentina	23.57 (7.89)	24.24 (8.06)	21.87 (7.20)
Brazil	361.23 (90.05)	377.26 (92.36)	321.24 (69.54)
Colombia	61.69 (17.73)	65.65 (18.20)	51.75 (11.59)
Mexico	537.65 (127.88)	575.86 (119.12)	441.96 (94.77)
Peru	231.11 (114.65)	279.77 (93.03)	108.05 (57.97)
Panel B. Emergency line calls			
Costa Rica	117.87 (34.14)	103.24 (23.87)	154.60 (27.83)
Ecuador	319.17 (123.89)	261.80 (73.31)	463.14 (106.76)
Peru	162.79 (47.45)	149.69 (41.29)	195.44 (46.19)
Panel C. Police reports			
Colombia	138.33 (35.17)	131.61 (27.59)	155.18 (45.19)
Ecuador	93.39 (24.28)	92.25 (22.42)	96.25 (28.29)
Uruguay	101.17 (16.93)	99.69 (17.26)	104.88 (15.48)

Note: Entries are daily means; standard deviations in parentheses. Sample covers daily calls and police reports for 2017–2019.

Distinct intra-week patterns by source

Daily patterns of help-seeking differ systematically across data types (Table 4). Across all available countries, helpline calls are more frequent on weekdays than on weekends, while emergency calls and police reports are more frequent on weekends. These contrasting intraweek cycles are consistent with the idea that different channels capture different types of events and behaviors. One possibility is that greater exposure during weekends increases the likelihood of escalation, leading to emergency interventions and police in-

volvement. Conversely, opportunities to seek guidance through helplines may be more constrained when privacy is limited. This interpretation aligns with prior evidence that reported cases of DV rise during nonwork periods (Card and Dahl, 2011). Taken together, the observed patterns suggest that the choice of reporting channel may be shaped not only by the occurrence of violence but also by the context in which victims can act on it, underscoring the importance of contextual interpretation and cross validation across data sources.

Limited and shifting correlations across data sources

Correlations between helpline calls, emergency calls, and police reports are generally low and vary across time. At certain points sources align closely, while at others they diverge. This reinforces the notion that each source captures a different dimension of DV dynamics and that no single indicator is representative on its own.

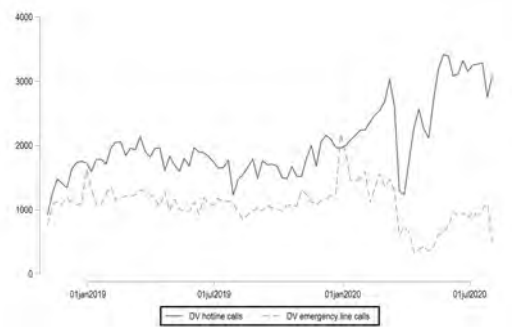
In our dataset, three countries provide more than one data source: Peru, Colombia, and Ecuador. Figure 3 displays both the time series and cross-source correlations for these countries.[12] The left panels show the evolution of the two sources over time, while the right panels show their relationship in scatter plots, with fitted values estimated separately before and during 2020. In Peru, hotline calls and emergency calls exhibit no correlation in the pre-2020 period but a positive correlation during the pandemic. In Colombia, hotline calls are uncorrelated with police reports before 2020 but become negatively correlated in 2020. In Ecuador, police reports and emergency calls are negatively correlated before 2020 but positively correlated during the pandemic.

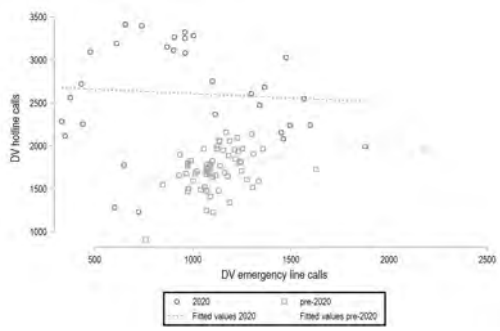
These shifts are consistent with the idea that different channels reflect different thresholds of reporting and distinct behaviors. Emergency calls and police reports may respond more directly to episodes that escalate during periods of heightened exposure, while helpline calls may depend more on opportunities to seek advice, which are constrained when privacy is limited. The pandemic provides a clear illustration of how contextual factors can reshape the relationship between help-seeking channels, amplifying some forms of reporting while suppressing others (Perez-Vincent and Carreras, 2022).

[12] Figure A.3 presents the time series for all countries available.

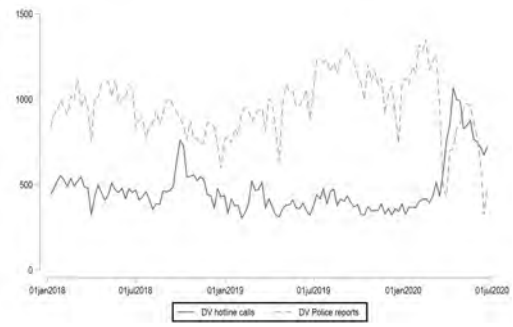
Figure 3: Administrative Data: Series and Correlations

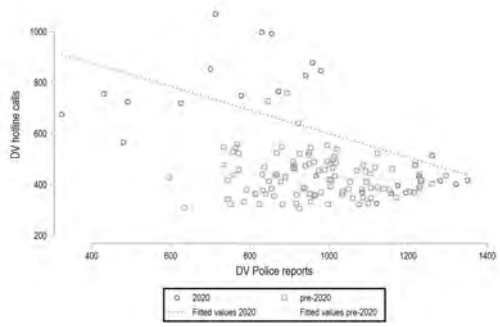
Peru



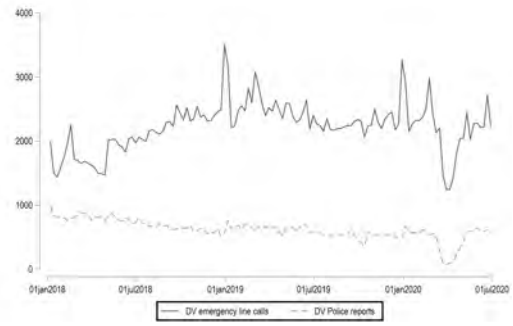


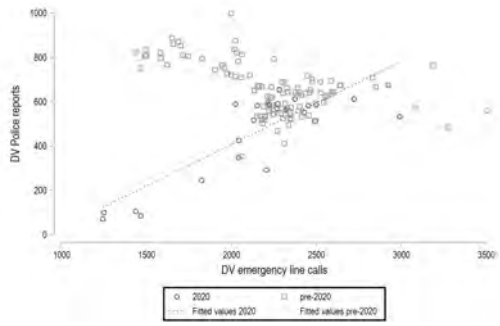
Colombia





Ecuador





Note: The figure shows the relationship between weekly time series of the different administrative data sources. The sample is split into two periods: 2020 (circles) and previous years (squares).

4 Google Search Data

As noted in the previous sections, administrative records and survey data offer valuable—but incomplete—insights into domestic violence (DV). In response to analogous measurement challenges across other domains, researchers and practitioners have increasingly turned to alternative data sources to close these information gaps. In particular, the rapid spread of digital technologies has made it possible to exploit digital trace data (i.e., behavioral records generated through search engines, social networks, mobile devices, and related platforms) to monitor a wide range of social phenomena.

Within this broad class of digital traces, Google Trends is among the most frequently used sources. The service publishes, free of charge, daily indices that report the share of all Google queries devoted to a specified topic for any country or subnational region. Prior work shows that Google Trends series can anticipate developments in labor markets (Askitas and Zimmermann, 2009; D'Amuri and Marcucci, 2017), epidemic dynamics (Teng et al., 2017), consumer demand (Schmidt and Vosen, 2013), tourism flows (Dinis et al., 2017), housing activity (Limnios and You, 2016), and credit risk (Burdeau and Knitzler, 2017). In the specific context of DV, search intensity for DV-related terms has been found to rise during periods of heightened risk and to correlate with administrative incident data (Berniell and Facchini, 2021; Anderberg et al., 2022b; Bacher-Hicks et al., 2022). Appendix B provides further discussion of this literature.

Following these contributions, we use Google Trends to construct the Google DV Index, which reports weekly search intensity for the topic "domestic violence."[13]

4.1 Constructing the Google Domestic Violence Index

We retrieve weekly Google Trends series for the Topic *"Domestic Violence"* for 18 LAC countries. In all of these countries, internet use is sufficiently widespread, with average penetration rates exceeding 60%, so search behavior provides a meaningful proxy for population-level interest. Detailed figures are reported in Appendix C.

Google Trends reports the share of all Google queries that belong to the requested topic for every country and any week since 2004. It rescales that share so the maximum

[13]The Google DV Index should be interpreted as an indicator of online attention to domestic and family violence in a broad sense, rather than a measure of narrowly defined IPV.

value within the retrieval window equals 100 and the minimum equals 0. In Google Trends a "topic" aggregates semantically related keywords in every language, thereby absorbing spelling variants and multilingual searches (Bacher and coauthors, 2022).[14] Because rescaling is applied independently to each request, series obtained in separate downloads must be realigned before analysis. Following Abel Brodeur and Wright (2021), we obtain consecutive, partially overlapping five-year windows for each country, splice them at their common observations, and renormalize the joined series.

Google makes data available from the week ending 10 January 2004 onward and updates the series weekly. Through the web interface, users can export time series for up to five topics (or keyword combinations) for a single country, or the same topic for up to five countries, within a single request.

The resulting country-specific, normalized index constitutes our Google DV Index: the weekly search intensity for the "domestic violence" topic.

4.2 Advantages and Limitations of Google Search Data for Measuring Domestic Violence

Google search query data (Google Trends) offer several advantages as a proxy measure for DV-related activity.

Timely and accessible. First, they provide high-frequency, real-time indicators at fine geographic resolution, enabling timely detection of trends that traditional data (surveys or administrative data) may miss or report only with delay (Ettredge et al., 2005; Jun et al., 2018). Researchers and practitioners can freely and quickly obtain search indices (normalized 0–100) for relevant keywords/topics across regions, which is particularly valuable during rapidly evolving situations (such as pandemic lockdowns) when official DV statistics are delayed or disrupted (Köksal et al., 2022; Riddell et al., 2022).

Capturing hidden patterns of abuse. Second, Google data can help reveal otherwise hidden patterns of DV by capturing information-seeking behavior from individuals who

[14] For instance, the topic "London" also captures queries such as "capital of the UK", as illustrated in the Google Trends support pages. To validate the meaning of the "domestic violence" topic in our context, Appendix D shows that it can be reconstructed almost perfectly using only three Spanish search terms ("violencia familiar", "violencia intrafamiliar", "violencia doméstica").

do not report to authorities. As indicated above only a minority of DV cases come to the attention of authorities (Palermo et al., 2014). However, people experiencing or witnessing abuse may turn to the internet for help or information. For example, in Finland, online searches for DV help showed pronounced seasonal peaks that coincided with peaks in police reports (Koutaniemi and Einiö, 2021). Likewise, in Italy, search queries for terms related to abuse and helplines were strongly correlated with subsequent hotline and emergency calls, with predictive power increasing during the COVID-19 crisis when traditional support channels were harder to reach (Köksal et al., 2022). These patterns suggest that anonymous Google searches allow victims to voice concerns and look for resources, and that these digital traces can be aggregated to signal rising DV risk in near real time (Stephens-Davidowitz, 2014a). In contexts with high internet penetration, Google Trends may therefore serve as a useful supplement or proxy when official DV data are unavailable (Mellon, 2013, 2014).

Reduced response bias for sensitive topics. Third, because Google searches are user-initiated and private, they are less prone to certain response biases that afflict survey or administrative data. Unlike face-to-face interviews or official reports, online search behavior is not subject to social desirability bias or recall errors in the same way (Mellon, 2014). For sensitive topics like DV (where stigma or fear may inhibit disclosure), this means search data can capture genuine levels of interest or distress that respondents might underreport in surveys (Stephens-Davidowitz, 2014a; Mellon, 2013). Indeed, studies have found that people's Google searches can reveal socially stigmatized experiences and attitudes (e.g., mental health issues or prejudice) that they are unwilling to admit publicly (Stephens-Davidowitz, 2014a; Mellon, 2014).

In summary, Google Trends provides a cost-free, high-frequency, and anonymized window into DV-related information-seeking, which can complement traditional indicators and potentially act as an early warning signal for spikes in DV incidence (Köksal et al., 2022; Riddell et al., 2022).

However, there are important limitations and biases to consider when using Google Trends to measure DV.

Indirect measure of violence. First, Google search data reflect interest and information-seeking behavior, not a direct count of abuse incidents (Mellon, 2014). The relationship between search volume and actual DV prevalence is indirect and context-dependent: a rise in DV-related searches could indicate more people seeking help due to more abuse, but it could also result from heightened media coverage or public awareness campaigns rather than an underlying increase in cases (Lazer et al., 2014; Mellon, 2013). In other words, searches measure the salience of DV in online attention, which may diverge from true victimization rates. This means that Google data should be interpreted as one possible signal of DV dynamics, rather than a direct measure. In practice, it is useful to assess whether particular keywords capture help-seeking behavior (e.g., "domestic violence shelter") or broader attention (such as "domestic violence news"). Notably, prior work found that Google's search data for some phenomena have misled researchers when uncorrected for confounders or hype — a famous example being Google Flu Trends, which substantially overestimated flu cases after algorithm changes and media effects (Lazer et al., 2014; Jun et al., 2018). For DV, this underlines the importance of cautious interpretation and, where possible, comparison with other sources.

Representativeness biases. Second, Google Trends data suffer from representativeness biases. Not all populations have equal access to the internet or use search engines to seek help, so certain groups are underrepresented in the data (Mellon, 2013, 2014). For instance, individuals who are older, less educated, of lower socioeconomic status, or living in remote and low-connectivity areas are less likely to generate Google search queries (Mellon, 2013; Köksal et al., 2022). In the context of DV, this digital divide means the Google Trends signal may skew toward younger, urban, and more affluent segments, potentially underestimating abuse in marginalized or rural communities (who may lack internet access or the digital literacy to search effectively) (Mellon, 2014; Stephens-Davidowitz, 2014a). A recent study in Italy found that DV search-based predictions were notably less accurate in provinces with lower socioeconomic indicators (Köksal et al., 2022; Koutaniemi and Einiö, 2021). These biases do not invalidate the data, but they suggest that search-based measures should be read as reflecting the behavior of specific groups more than the entire population.

Measurement and reliability issues. Third, measurement and data reliability issues can complicate the use of Google Trends for rigorous analysis. Google provides only a relative search interest index (scaled to the peak volume over the specified time/place), not absolute counts of queries. This normalization, along with Google's proprietary sampling and smoothing procedures, can introduce instability and opacity into the data (Eichenauer et al., 2022; Jun et al., 2018). In practice, analysts have found that repeated Google Trends queries for the same term can yield slightly different results due to sampling variation, especially when query volumes are low (Eichenauer et al., 2022; Lazer et al., 2014). DV-related searches in smaller regions or short time windows might fall below Google's reporting thresholds or be noisy, leading to missing or zero values and hindering fine-grained analysis (Eichenauer et al., 2022; Mellon, 2014). Moreover, changes in Google's algorithms or public behavior (e.g., shifts from Google to other platforms) can affect the trend data over time in ways that are hard to observe or correct. For these reasons, results should be treated as indicative patterns rather than precise measures and ideally interpreted alongside administrative or survey data when available.

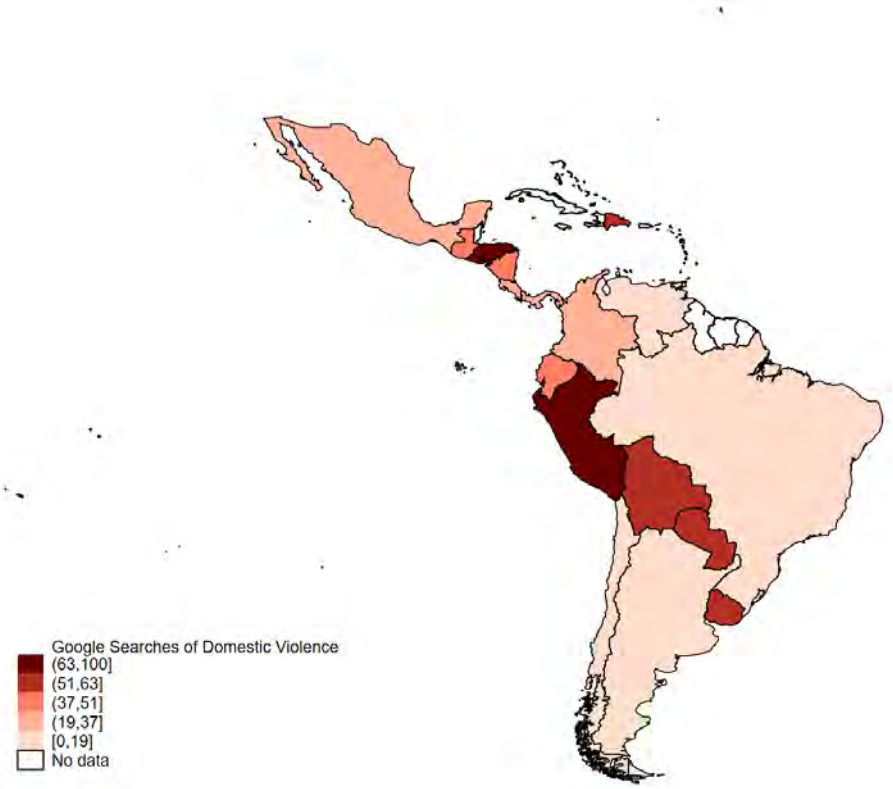
In sum, while Google search data open an exciting new avenue to monitor and study DV (potentially improving timeliness and scope of detection), they come with significant limitations in validity, representativeness, and reliability. Interpretive caution is warranted: a rising search trend for "domestic violence" might reflect changes in awareness as much as changes in underlying abuse. Interpreting search data therefore requires care. Any use of Google Trends for DV research should triangulate with traditional data and follow best practices (e.g., validation against known events, attention to population biases (Mellon, 2013; Lazer et al., 2014)) to ensure robust and interpretable results.

4.3 Google Searches on Domestic Violence in Latin America: Descriptive Patterns

We collected weekly data from Google Trends on the topic "domestic violence" for 18 Latin American countries over the period 2017–2021. Figure 5 presents the time series of search intensity for each country. Two features stand out. First, in many cases the indicator displays a marked seasonal pattern, with peaks and troughs recurring at similar

points in the year. Second, the measure performs less reliably in smaller countries with lower internet penetration (such as Nicaragua, Guatemala, El Salvador, and Honduras), where search volumes are highly variable and often include zero values.

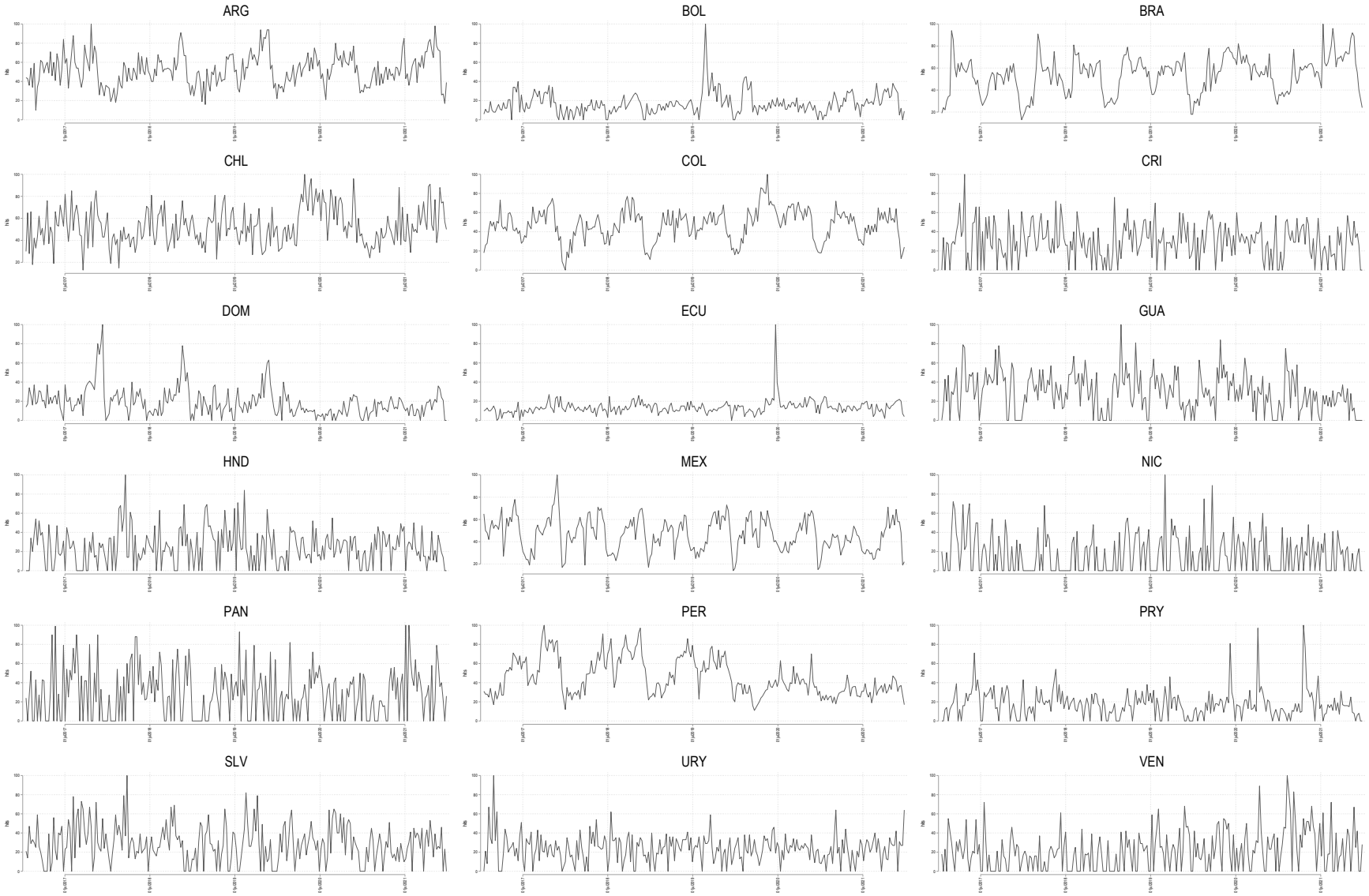
Figure 4: Google Searches of Terms Related to Domestic Violence



Note: The map shows the average Google Trends index for searches related to DV across 18 LAC countries during 2017–2019 (2020–21 are excluded due to the pandemic). Values were normalized relative to Argentina and rescaled to range between 0 and 100. Darker shades indicate higher relative search intensity.

Search intensity also varies substantially across countries. Figure 4 summarizes the average level of DV-related search activity during 2017–2019 (2020–21 are excluded due to the pandemic). The map highlights clear geographical heterogeneity, with higher relative search intensity in countries such as Peru, Colombia, and Chile, and much lower intensity in others. These descriptive patterns suggest that while Google search data can provide valuable information, their coverage and stability differ considerably across settings.

Figure 5: Google Searches of DV-related Topics by Country between 2017 and 2021



5 Assessing the Link between the Google Domestic Violence Index and Administrative Measures of Domestic Violence

This section examines the relationship between searches related to DV and administrative indicators of DV across the eight LAC countries for which we we were able to retrieve such data. The aim is to identify patterns in Google DV search activity, and assess how they can be leveraged for research and policy. We organize the discussion around three points: (i) the extent to which search activity aligns with administrative data, (ii) the predictive value of search intensity for helpline demand, and (iii) the behavior of these measures during the COVID-19 pandemic as a test of their usefulness.

5.1 Relationship between the Google Domestic Violence Index and Administrative Data on Domestic Violence

We begin by comparing weekly Google searches related to DV with high-frequency administrative measures: police reports, calls to DV helplines, and calls to emergency lines. Table 5 summarizes pairwise correlations before and after 2020. The results reveal clear but heterogeneous patterns across countries. In general, correlations between Google searches and DV helpline calls are stronger and more consistent than those with emergency line calls or police reports. For example, correlations with helpline calls are positive and statistically significant in Argentina, Colombia, and Peru—reaching 0.56, 0.65, and 0.47 during 2020, respectively. By contrast, correlations with emergency calls or police reports are weaker and less stable: in some cases they are positive (e.g., Peru, Ecuador), in others negative (e.g., Colombia, Peru pre-2020), and often not statistically significant. These mixed patterns underscore that the degree of alignment depends both on the type of administrative source and on contextual conditions, such as the COVID-19 pandemic.

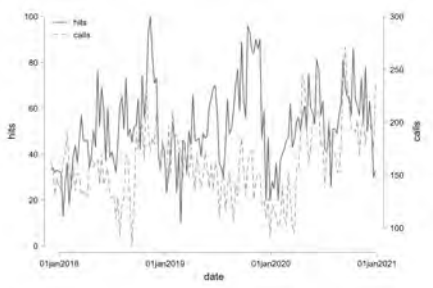
Figures 6 and A.4 illustrate these patterns for helpline calls more directly. The time series (Figure 6) show that searches and helpline calls often move together, particularly during 2020. The scatterplots (Figure A.4 in Appendix E) confirm this relationship: the association is positive across most countries and strengthens in the pandemic year. In turn, analogous figures for emergency line calls and police reports (Figures A.5 and A.6 in Appendix E) show weaker or more inconsistent relationships.

Table 5: Correlation between Google DV Index and Administrative Data, Pre-2020 vs. 2020

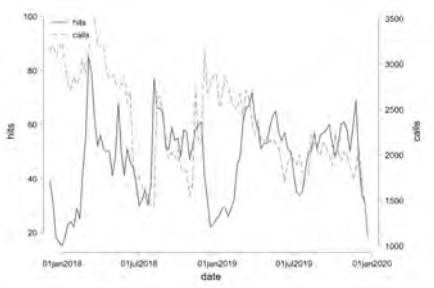
	DV Hotline Calls		Emergency Line Calls		Police Reports	
Country	Pre-2020	2020	Pre-2020	2020	Pre-2020	2020
Argentina	0.19**	0.56***				
Brazil	-0.11					
Colombia	0.21**	0.65***			0.28***	-0.43**
Costa Rica			-0.02	-0.04		
Ecuador			-0.01	0.28	-0.06	0.45**
Mexico	0.04	0.12				
Peru	-0.05	0.47***	-0.46***	0.24**		
Uruguay					-0.03	-0.23

Note: Reported coefficients are pairwise correlations between weekly Google search intensity for DV topics and administrative measures of DV, by country and period. "DV hotline calls" refers to calls to DV helplines, "Emergency line calls" to calls to general emergency hotlines reporting DV, and "Police reports" to recorded DV cases. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

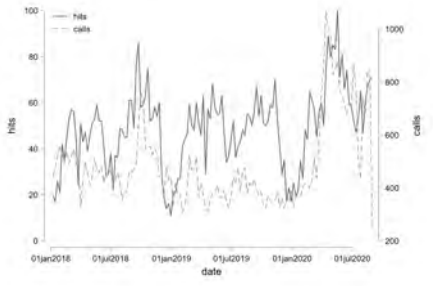
Figure 6: Weekly Google Searches on Domestic Violence and Calls to DV Hotlines



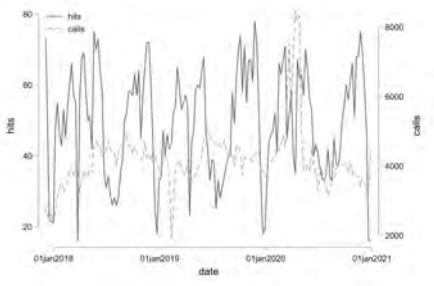
(a) Argentina



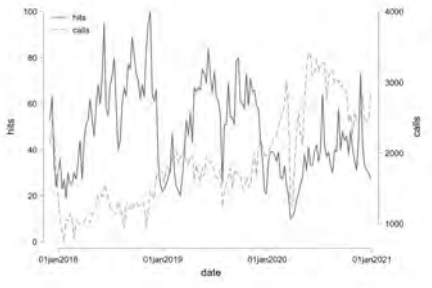
(b) Brazil



(c) Colombia



(d) Mexico

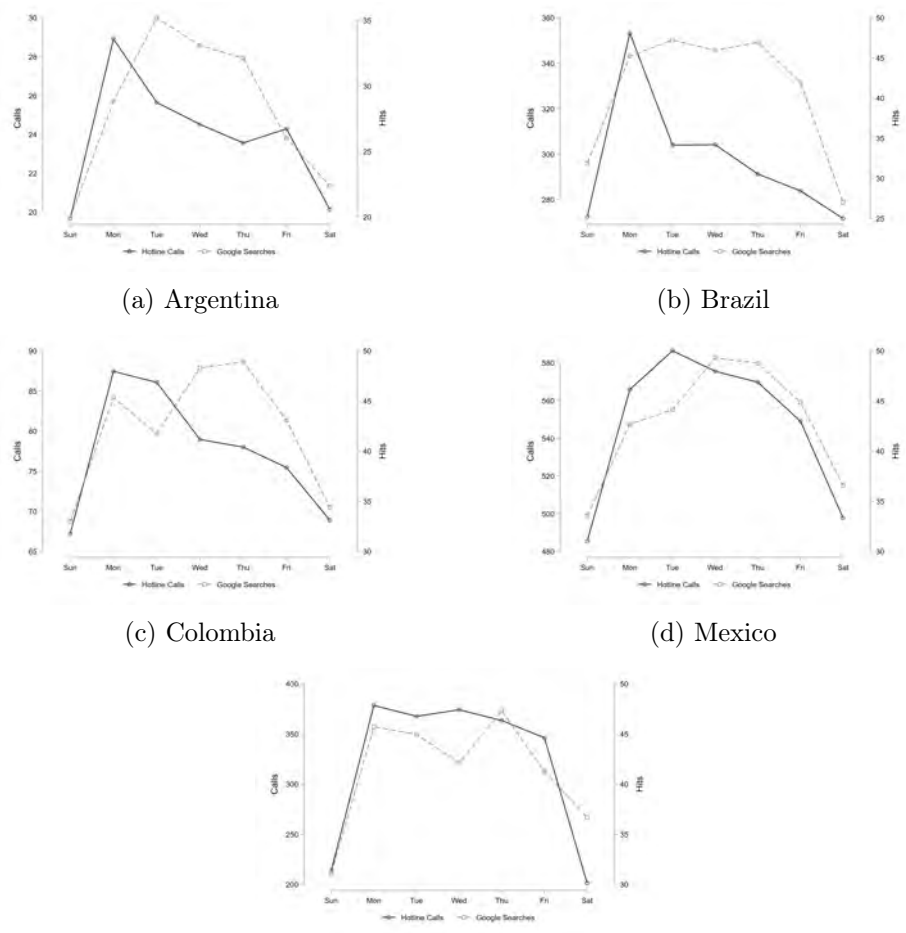


(e) Peru

Note: Each panel plots weekly Google search intensity for the "domestic violence" topic (solid line) against calls to DV hotlines (dashed line), from 1 January 2018 to 31 December 2021.

Weekly seasonality offers further evidence on the relationship between data sources. Weekly cycles in Google searches and DV helpline calls are strikingly similar (Figure 7). Both exhibit an inverted U-shape, with higher volumes during weekdays and declines over weekends. In sharp contrast, emergency calls and police reports follow the opposite U-shaped pattern, with peaks on weekends (Figure A.8). At the monthly level (Figures A.9–A.11 in Appendix E), seasonal fluctuations in searches broadly mirror administrative sources, though the alignment is less clear than for weekly patterns.

Figure 7: Domestic Violence Hotline Calls by Day of the Week



(a) Argentina

(b) Brazil

(c) Colombia

(d) Mexico

(e) Peru

Note: Each panel shows the distribution of daily calls to DV hotlines by day of the week. Data cover the period 1 March 2019 to 1 November 2019.

Taken together, these results support the idea that Google DV search activity aligns most closely with the dynamics captured by helpline calls (early-stage help-seeking behavior), suggesting that demand for both channels is shaped by similar constraints on

privacy and opportunity to seek help. Other administrative sources, such as emergency calls or police reports, reflect later or more escalated stages of violence and therefore do not track online searches as consistently. This distinction suggests that the Google DV Index can serve as a useful complementary indicator to detect emerging risks or latent demand for advice and assistance.

5.2 Google Trends as a Predictor of Calls to Domestic Violence helplines

To further assess the relationship between Google searches and helpline calls, we estimate econometric models regressing weekly helpline calls on search intensity, controlling for lagged calls, time trends, and seasonality (Equation 1). This exercise serves two purposes: first, it provides an additional test of the link between the Google indicator and administrative data on DV; second, it allows us to examine whether Google Trends can be used to nowcast episodes of DV reported in administrative data, which are typically published with delay.[15] Formally, we estimate the following model by OLS:

$$Log(Calls)c,t = \beta 0 + \beta_1 Log(Calls)c,t-4 + \beta 2 Log(Hits)c,t + \psi 3 f(date) + \phi_m + \lambda_y + \epsilon_{ct}, \tag{1}$$

where the outcome is the number of calls to the DV hotline in country c in week t, month m, and year y. The regressors include: the one-month (4 weeks) lagged value of calls ($Log(Calls)c,t-4$), the log of Google Trends search intensity ($Log(Hits)c,t$), a third-degree polynomial in time (day), and month and year fixed effects. The coefficient β_2 captures the association between DV-related search intensity and hotline calls, conditional on past calls and seasonal patterns.

Results by country are reported in Table 6, with pooled estimates in Table A.2. Across all specifications, the coefficient on search intensity ($Log(Hits)$) is positive and statistically significant, indicating that increases in DV-related searches are associated with higher volumes of helpline calls, even after adjusting for lagged calls and seasonal dynamics. The predictive effect is strongest contemporaneously: Figure A.16 shows that correlations peak in the same week for Argentina, Brazil, and Peru, with weaker but still

[15] We assume a one-month lag in the availability of administrative data, though this could be considered a lower bound.

positive evidence for Colombia and Mexico. These results suggest that Google search data provide additional information beyond administrative sources and can be used to nowcast helpline demand in real time.

Table 6: Regression of DV Helpline Calls on Google Searches, by Country

	(1)	(2)	(3)	(4)
Argentina				
Lagged DV Helpline Calls (log, 1 month)	0.080***	0.261***	0.242***	
	(0.013)	(0.084)	(0.083)	
Google DV Search Index (log)			0.122**	0.140**
			(0.056)	(0.057)
R^2	0.150	0.403	0.423	0.385
Brazil				
Lagged DV Helpline Calls (log, 1 month)	0.104***	0.275**	0.321***	
	(0.031)	(0.119)	(0.119)	
Google DV Search Index (log)			0.188**	0.095
			(0.091)	(0.081)
R^2	0.038	0.673	0.688	0.684
Colombia				
Lagged DV Helpline Calls (log, 1 month)	0.654***	0.330***	0.302***	
	(0.072)	(0.098)	(0.097)	
Google DV Search Index (log)			0.187**	0.229**
			(0.088)	(0.090)
R^2	0.381	0.554	0.571	0.517
Mexico				
Lagged DV Helpline Calls (log, 1 month)	0.207***	0.247***	0.250***	
	(0.026)	(0.081)	(0.081)	
Google DV Search Index (log)			0.033	0.030
			(0.048)	(0.046)
R^2	0.228	0.431	0.433	0.478
Peru				
Lagged DV Helpline Calls (log, 1 month)	0.213***	0.194***	0.216***	
	(0.038)	(0.072)	(0.072)	
Google DV Search Index (log)			0.102**	0.095**
			(0.044)	(0.044)
R^2	0.135	0.851	0.857	0.847
FE year		Yes	Yes	Yes
FE month		Yes	Yes	Yes
Time trend		Yes	Yes	Yes

Note: Dependent variable is the weekly (log) number of calls to the national/DV hotline. Independent variables include lagged DV helpline calls (log, 1 month), the Google DV search index (log), and fixed effects as specified. Data cover Jan-2017 to Dec-2021, subject to availability by country (see Table 3). Standard errors in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

5.3 Performance of the Google Domestic Violence Index during the COVID-19 Pandemic

The COVID-19 pandemic provides a useful context to examine whether Google search data capture latent demand for support and complement traditional sources of information. Lockdowns and mobility restrictions increased risk factors associated with DV, such as prolonged cohabitation, economic stress, and reduced access to external support. In this period of heightened risk, delays in administrative data became especially salient, as they may hinder timely awareness and response, while online searches can offer a more immediate signal of underlying patterns of victimization.

Berniell and Facchini (2021) use Google search data to study the effects of lockdowns on DV in 11 countries, including 5 in LAC. They report a 30% increase in DV-related searches following lockdowns, with stronger effects where mobility reductions were greater. The increase was larger in developed countries than in LAC, and its magnitude correlated with compliance with stay-at-home measures across the two groups.

We extend this analysis in two ways. First, we incorporate additional LAC countries. Second, we compare the evolution of the Google DV Index against alternative administrative data sources.

Figure A.4 shows that, during 2020, the correlation between DV searches and helpline calls strengthened relative to the pre-pandemic period. The association was particularly high in Argentina, Colombia, and Peru (above 0.5 and statistically significant at the 1% level), while weaker in Mexico.

Figure 8 presents event–study estimates that align each country by the month of its first nationwide lockdown and trace outcomes before and after that date. For country c in month t, we estimate:

$$Y_{c,t} \;=\; \alpha_c \;+\; \sum_{k\neq -1} \beta_k \,\mathbf{1}\{m_{c,t}=k\} \;+\; \lambda_{y(t)} \;+\; \phi_{m(t)} \;+\; \varepsilon_{c,t}, \tag{2}$$

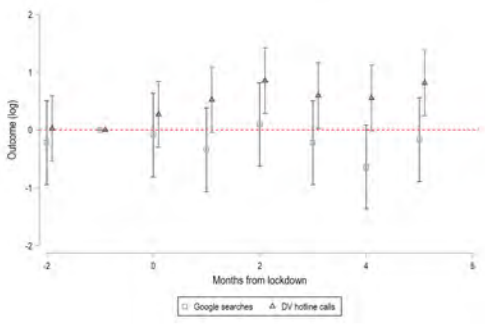
where $Y_{c,t}$ is the log outcome (DV-related Google searches or, where available, an administrative DV series), and $\mathbf{1}\{m_{c,t}=k\}$ is an indicator for being k months relative to the lockdown month ($k=-1$ is omitted). The specification includes year fixed effects $\lambda_{y(t)}$

and month-of-the-year fixed effects $\phi_{m(t)}$; α_c captures country-specific levels.[16] We plot the β_k coefficients for $k \in [-2, +6]$ with 95% confidence intervals, so each point measures the change relative to the month immediately preceding lockdown.

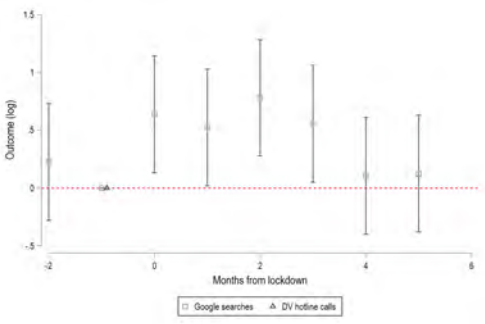
Two results emerge from the analysis. First, DV-related searches rise at lockdown onset or a few months later in several countries. Second, where administrative data are available, Google search intensity tends to move closer together with DV helpline calls and diverge from emergency calls or police reports.

[16] When the model is estimated separately by country, α_c reduces to a constant α.

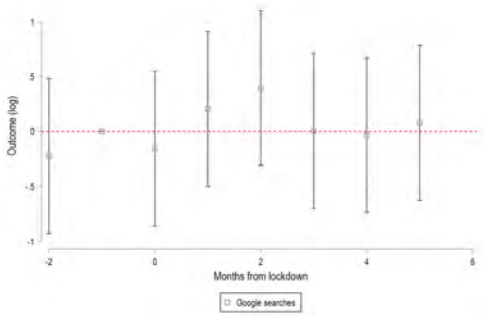
Figure 8: Event–Study Estimates of DV-Related Searches and Calls around COVID-19 Lockdowns



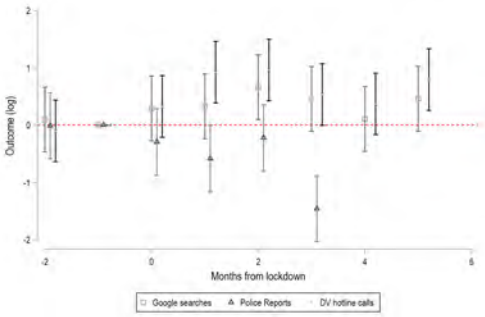
(a) Argentina



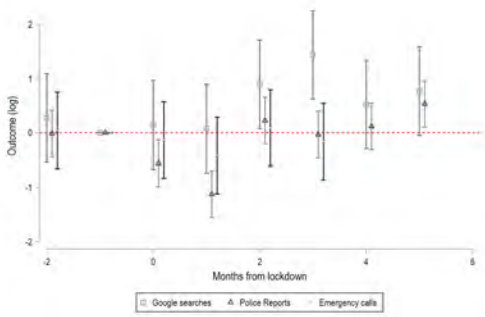
(b) Brazil



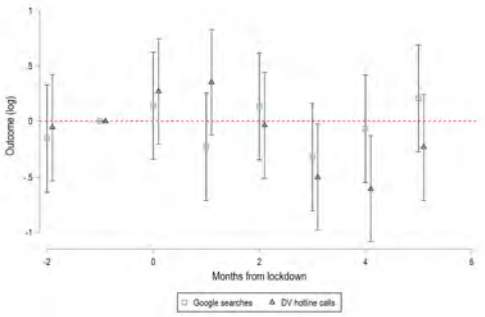
(c) Chile



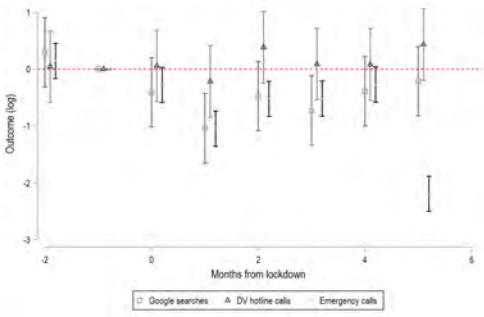
(d) Colombia



(e) Ecuador



(f) Mexico



(g) Peru

Note: Each panel plots event–study coefficients from regressions of DV-related Google searches (and, where available, administrative DV indicators) on month dummies. The outcome is measured at the country-by-month level. Year and month-of-the-year fixed effects are included. Vertical bars indicate 95% confidence intervals. The omitted category is the month immediately preceding lockdown. Lockdown timing is based on the type 2 definition in Hale et al. (2020).

As a complementary exercise, we estimate a difference-in-differences model to summarize the average impact of lockdowns on DV-related searches:

$$Log(Hits)_{c,t} = \alpha + \beta \cdot Lockdown_{c,t} + \lambda_{y(t)} + \phi_{m(t)} + \varepsilon_{c,t}, \tag{3}$$

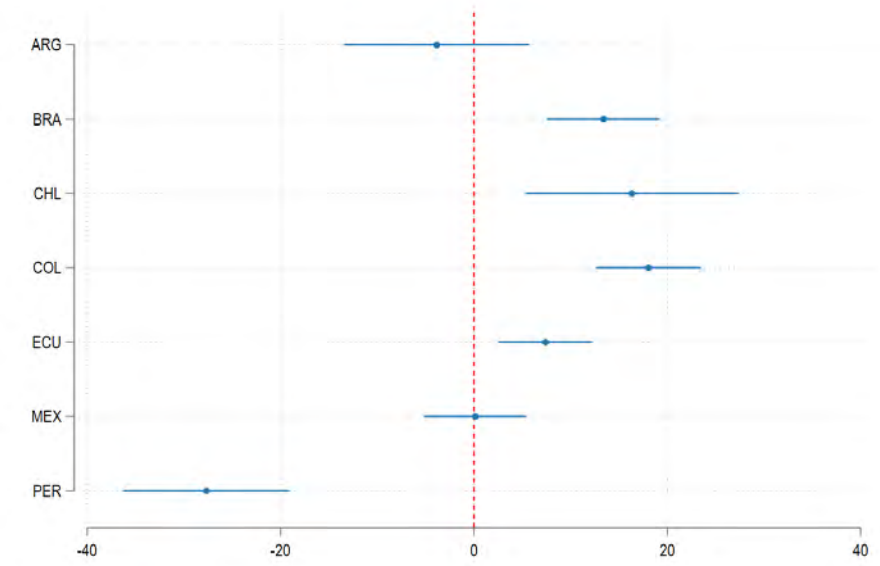
where $Log(Hits)_{c,t}$ denotes the log of Google search intensity for DV in country c and week t, and $Lockdown_{c,t}$ is a dummy equal to one if the country was under a type 2 lockdown (Hale et al., 2020) at time t. The model includes year fixed effects $\lambda_{y(t)}$ and month-of-the-year fixed effects $\phi_{m(t)}$. The coefficient β captures the average change in DV-related searches associated with lockdowns, relative to the pre-lockdown period.

The estimates, shown in Figure 9, highlight important heterogeneity across countries. In Brazil, Colombia, Ecuador, and Mexico, the coefficients are positive and statistically significant, suggesting that lockdowns were associated with a marked rise in DV-related search activity. By contrast, effects for Argentina and Chile are close to zero, while in Peru the coefficient is negative. These patterns are broadly consistent with the event–study dynamics, indicating that lockdowns often coincided with heightened demand for DV-related information, but with varying timing and intensity across contexts.

A noteworthy case is Ecuador, where available administrative data—limited to police reports and emergency line calls—declined during lockdowns, yet Google search activity rose. This divergence underscores the potential of search-based measures to capture latent demand for support that remains invisible in traditional statistics, and it illustrates how online indicators may provide a valuable complementary tool for monitoring DV risk in real time.

Overall, the results indicate that Google search data should not be seen as a substitute for administrative sources, but rather as a complementary tool. The timeliness and accessibility of Google search data make them well suited for monitoring changes in DV risk and for informing rapid policy responses in contexts where administrative data are delayed or incomplete.

Figure 9: Difference-in-Differences Estimates of DV-Related Google Searches during COVID-19 Lockdowns



Note: The figure plots difference-in-differences estimates from regressions of DV-related Google searches on an indicator equal to one during the nationwide lockdown period and zero otherwise. Estimates include country and year fixed effects. Lockdown timing is based on the type 2 definition in Hale et al. (2020). Vertical bars represent 95% confidence intervals.

6 Conclusions

Domestic violence (DV) remains one of the most pressing social and development challenges in Latin America and the Caribbean (LAC). Globally, one in three women has experienced physical or sexual abuse by an intimate partner; in LAC, available evidence suggests that the prevalence is even higher, with at least two in five women reporting victimization in survey data. Yet, despite the scale of the problem, reliable and timely data remain scarce. Surveys, while indispensable for establishing prevalence and attitudes, are infrequent, costly, and often outdated. Administrative data—such as police reports or helpline calls—capture only a fraction of true incidence due to persistent underreporting. In the five LAC countries with available data, at least two-thirds of DV cases remain unreported. This severe measurement gap constrains governments' ability to design, monitor, and evaluate effective policy responses.

This study contributes to addressing that gap by proposing a novel indicator of DV based on Google search intensity for DV-related topics. The Google DV Index offers several advantages: it is freely available, updated at high frequency, comparable across countries, and less subject to some of the biases affecting traditional data sources. Our results show that the index tracks help-seeking behavior closely, particularly calls to specialized DV helplines, and exhibits clear weekly and seasonal patterns similar to those of administrative data. The evidence suggests that online searches can capture early, information-seeking stages of distress that may remain invisible in police statistics. During the COVID-19 pandemic, when mobility restrictions likely exacerbated underreporting, the index proved particularly informative, highlighting episodes of latent demand for support. This is especially notable in contexts where search intensity increased but administrative data did not record a proportional rise in reported cases, suggesting unmet needs not reflected in official statistics.

Beyond validation, we demonstrate that the index provides useful predictive power for near-term DV helpline activity, offering potential applications for nowcasting. For policymakers, this implies that search data can complement existing monitoring systems, enabling earlier detection of distress signals and more timely allocation of prevention and support resources. In practice, governments and multilateral organizations could use

these indicators to anticipate surges in demand for DV services, strengthen crisis response capacity, and target outreach in areas where victims may face barriers to reporting. For countries with limited statistical infrastructure, the Google DV Index can provide an interim monitoring tool while investments in survey and administrative data systems are scaled up.

At the same time, several caveats are warranted. First, the Google DV Index is an indirect proxy: increases in search volume may reflect heightened awareness or media attention rather than actual increases in victimization. Second, representativeness is uneven, as internet access and search behavior vary by age, socioeconomic status, and geography. The index may disproportionately reflect the experiences of younger, urban, and more connected populations, while underrepresenting rural or marginalized groups. Third, keyword selection and measurement choices affect results, and the opaque algorithms underlying Google Trends may introduce instability in the data. These limitations underscore the importance of using the index as a complement, rather than a substitute, for traditional sources.

In conclusion, this paper highlights both the challenges and opportunities in strengthening DV measurement in LAC. By triangulating traditional surveys, administrative records, and novel digital indicators, policymakers can obtain a more complete and timely understanding of DV dynamics. While the Google DV Index is not a substitute for conventional data, it can provide valuable complementary insights, particularly in periods of crisis or in countries with limited capacity to collect data. Future work should continue to refine the methodology, address representativeness gaps, and explore how digital data can be responsibly integrated into policy design. Improving measurement is a critical step toward building more effective, survivor-centered responses to DV in the region.

References

N. C. Abel Brodeur and T. Wright. On the empirical value of Google Trends. *Economic Inquiry*, 59(1):32–52, 2021. doi: 10.1111/ecin.12842. 30

A. Aizer. The gender wage gap and domestic violence. *American Economic Review*, 100 (4):1847–1879, 2010. 18

V. Alvarez-Aragón and L. Champeaux. Who is asking and how? effects of survey mode and enumerator characteristics on self-reported intimate partner violence. *World Development*, 163:106147, 2024. doi: 10.1016/j.worlddev.2022.106147. 12

D. Anderberg, H. Rainer, and F. Siuda. Quantifying domestic violence in times of crisis: an internet search activity-based measure for the COVID-19 pandemic. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 185(2):498–518, 2022a. doi: 10.1111/rssa.12780. URL `https://doi.org/10.1111/rssa.12780`. 3

D. Anderberg, H. Rainer, and F. Siuda. Quantifying domestic violence in times of crisis: An internet search activity-based measure for the COVID-19 pandemic. *Journal of the Royal Statistical Society Series A: Statistics in Society*, 185(2):498–518, 2022b. 5, 29

C. Anvik and K. Gjelstad. "Just Google it": Forecasting Norwegian Unemployment Figures with Web Queries. Working paper, BI Norwegian Business School, 2010. URL `https://biopen.bi.no/bi-xmlui/handle/11250/95460`. 64

M. C. Araujo, S. Berlinski, M. Bosch, and V. Frisancho, editors. *Expanding Opportunities: Policies for Gender Equality and Inclusion*. Development in the Americas. Inter-American Development Bank, Washington, DC, 2024. 16

N. Askitas and K. F. Zimmermann. Google econometrics and unemployment forecasting. Technical Report DP 4201, Institute for the Study of Labor (IZA), 2009. URL `https://ftp.iza.org/dp4201.pdf`. 29, 64

N. Askitas and K. F. Zimmermann. The internet as a data source for advancement in social sciences. In *International Journal of Manpower*. Springer, 2015. URL `https://doi.org/10.1108/IJM-02-2015-0029`. 64

I. Bacher and coauthors. How well do Google searches track domestic violence? *Journal of Population Economics*, 35:1057–1090, 2022. doi: 10.1007/s00148-022-00897-5. 30

A. Bacher-Hicks, J. Goodman, J. G. Green, and M. K. Holt. The COVID-19 pandemic disrupted both school bullying and cyberbullying. *American Economic Review: Insights*, 4(3):353–70, 2022. 29

I. Berniell and G. Facchini. Covid-19 lockdown and domestic violence: Evidence from internet-search behavior in 11 countries. *European Economic Review*, 136:103775, 2021. 3, 5, 29, 42, 64

F. C. Billari, F. D'Amuri, and J. Marcucci. Forecasting births using Google Trends. *Demography*, 50(3):1063–1079, 2013. doi: 10.1007/s13524-013-0196-5. 64

S. Bott, A. Guedes, A. P. Ruiz-Celis, and J. A. Mendoza. Intimate partner violence in the Americas: a systematic review and reanalysis of national prevalence estimates. *Revista Panamericana de Salud Pública*, 43:e26, 2019. doi: 10.26633/RPSP.2019.26. URL `https://doi.org/10.26633/RPSP.2019.26`. 2

M. J. Breiding, J. S. Ziembroski, and M. C. Black. Prevalence of rural intimate partner violence in 16 u.s. states, 2005. *Journal of Rural Health*, 25(3):240–246, 2009. doi: 10.1111/j.1748-0361.2009.00225.x. 12

A. Brodeur, A. E. Clark, S. Flèche, and N. Powdthavee. COVID-19, lockdowns and well-being: Evidence from Google Trends. *Journal of Public Economics*, 193:104346, 2021. doi: 10.1016/j.jpubeco.2020.104346. 64

E. Burdeau and E. Knitzler. Assessing the use of Google Trends to predict credit developments. In *Proceedings of the 61st ISI World Statistics Congress*, 2017. URL `https://www.bis.org/ifc/events/wsc_isi/ips024_burdeau_paper.pdf`. 29

J. C. Campbell. Health consequences of intimate partner violence. *The Lancet*, 359 (9314):1331–1336, 2002. doi: 10.1016/S0140-6736(02)08336-8. URL `https://doi.org/10.1016/S0140-6736(02)08336-8`. 2

J. C. Campbell, D. Webster, J. Koziol-McLain, C. Block, et al. Risk factors for femicide

in abusive relationships: Results from a multisite case–control study. *American Journal of Public Health*, 93(7):1089–1097, 2003. 19

D. Card and G. B. Dahl. Family violence and football: The effect of unexpected emotional cues on violent behavior. *Quarterly Journal of Economics*, 126(1):103–143, 2011. 17, 18, 27

H. Choi and H. Varian. Predicting the present with google trends. *Economic record*, 88: 2–9, 2012. 64

H. Choi and H. R. Varian. Predicting the present with Google Trends. Technical report, Google, 2009. URL `https://static.googleusercontent.com/media/research.google.com/en//archive/papers/predicting-the-present.pdf`. 64

M. Colagrossi, C. Deiana, A. Geraci, and L. Giua. Hang up on stereotypes: Domestic violence and an anti-abuse helpline campaign. *Contemporary Economic Policy*, 40(4): 628–651, 2022. doi: 10.1111/coep.12571. 64

M. Colagrossi, C. Deiana, D. Dragone, A. Geraci, L. Giua, and E. Iori. Intimate partner violence and help-seeking: The role of femicide news. *Journal of Health Economics*, 87: 102700, 2023. doi: 10.1016/j.jhealeco.2022.102700. 64

M. Contreras-Urbina, A. Bourassa, R. Myers, J. Ovince, R. Rodney, and S. Bobbili. Guyana women's health and life experiences survey 2018 report, 2018. 15

C. Cullen. Method matters: The underreporting of intimate partner violence in Nigeria and Rwanda. *World Bank Economic Review*, 37(1):49–73, 2023. doi: 10.1093/wber/lhac022. URL `https://doi.org/10.1093/wber/lhac022`. 2, 11, 12, 13

F. D'Amuri and J. Marcucci. The predictive power of Google searches in forecasting U.S. unemployment. *International Journal of Forecasting*, 33(4):801–816, 2017. doi: 10.1016/j.ijforecast.2017.03.004. 29

K. M. Devries, J. Y. T. Mak, C. Garcia-Moreno, and et al. The global prevalence of intimate partner violence against women. *Science*, 340:1527–1528, 2013. doi: 10.1126/science.1240937. 11

I. Dinis, C. Costa, and O. Pacheco. Forecasting British tourist inflows to Portugal using Google Trends data. *Tourism Management*, 58:1–9, 2017. doi: 10.1016/j.tourman.2016.10.012. 29

V. Z. Eichenauer, R. Indergand, I. Z. Martinez, and C. Sax. Obtaining consistent time series from Google Trends. *Economic Inquiry*, 60(2):694–705, 2022. 33

M. Ellsberg and L. Heise. Bearing witness: Ethics in domestic violence research. *The Lancet*, 359(9317):1599–1604, 2002. doi: 10.1016/S0140-6736(02)08521-5. 13

M. Ettredge, J. Gerdes, and G. Karuga. Using web-based search data to predict macroeconomic statistics. *Communications of the ACM*, 48(11):87–92, 2005. 30

Y. Fondeur and E. A. Karamé. Can Google data help nowcast and forecast unemployment in France? *Applied Economics*, 45(27):3723–3735, 2013. doi: 10.1080/00036846.2012.736947. 64

D. Francesco. Predicting unemployment in short samples with internet job search query data. 2009. 64

J. Ginsberg, M. H. Mohebbi, R. S. Patel, L. Brammer, M. S. Smolinski, and L. Brilliant. Detecting influenza epidemics using search engine query data. *Nature*, 457:1012–1014, 2009. doi: 10.1038/nature07634. 64

C. Haerpfer, R. Inglehart, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin, and B. Puranen. World values survey wave 7 (2017–2022) cross-national data-set, 2022. URL `https://www.worldvaluessurvey.org/WVSDocumentationWV7.jsp`. 3, 16, 17

T. Hale, S. Webster, A. Petherick, T. Phillips, and B. Kira. Oxford COVID-19 government response tracker. *Blavatnik School of Government*, 25, 2020. 44, 46

R. Y. Hsia, J. Brownell, S. Ma, et al. Intimate partner violence–related emergency department visits in the United States, 2006–2014. *JAMA Network Open*, 3(10):e2023935, 2020. 19

R. Iyengar. Does the certainty of arrest reduce domestic violence? evidence from mandatory and recommended arrest laws. *Journal of Public Economics*, 93(1–2):85–98, 2009. 18, 23

S. Jayachandran. The roots of gender inequality in developing countries. *Annual Review of Economics*, 7(1):63–88, 2015. 12

S.-P. Jun, H.-S. Yoo, and S.-P. Choi. Ten years of research change using Google Trends: From the perspective of big data utilizations and applications. *Technological Forecasting and Social Change*, 130:69–87, 2018. 30, 32, 33

S. Kishor et al. Ipums MICS: Integrated public use microdata series for unicef multiple indicator cluster surveys. `https://mics.ipums.org/mics/`, 2023. Accessed November 12, 2025. 7

K. M. Kitzmann, N. K. Gaylord, A. R. Holt, and E. D. Kenny. Child witnesses to domestic violence: a meta-analytic review. *Journal of Consulting and Clinical Psychology*, 71(2): 339–352, 2003. doi: 10.1037/0022-006X.71.2.339. URL `https://doi.org/10.1037/0022-006X.71.2.339`. 2

S. Köksal, E. Sanliturk, V. Rotondi, and L. M. Pesando. Harnessing the potential of Google searches for understanding dynamics of intimate partner violence before and after the COVID-19 outbreak. *European Journal of Population*, 2022. doi: 10.1007/s10680-022-09619-2. 30, 31, 32

E. M. Koutaniemi and E. Einiö. Seasonal variation in seeking help for domestic violence based on Google search data and Finnish police calls in 2017. *Scandinavian Journal of Public Health*, 49(3):254–259, 2021. 31, 32

E. G. Krug, L. L. Dahlberg, J. A. Mercy, A. B. Zwi, and R. Lozano, editors. *World Report on Violence and Health*. World Health Organization, Geneva, 2002. ISBN 92-4-154561-5. URL `https://www.who.int/publications/i/item/9241545615`. 2

D. Lazer, R. Kennedy, G. King, and A. Vespignani. The parable of Google flu: Traps in big data analysis. *Science*, 343(6176):1203–1205, 2014. 32, 33

E. Leslie and R. Wilson. Sheltering in place and domestic violence: Evidence from calls for service during COVID-19. *Journal of Public Economics*, 189:104241, 2020. 17

C. Limnios and H. You. Can Google Trends actually improve housing-market forecasts? Technical report, SSRN Working Paper, 2016. URL `https://ssrn.com/abstract=2886705`. 29

M. Maheu-Giroux, L. Sardinha, H. Stöckl, and et al. A framework to model global, regional, and national estimates of intimate partner violence. *BMC Medical Research Methodology*, 22:159, 2022. doi: 10.1186/s12874-022-01634-5. 12, 13

N. McLaren and R. Shanbhogue. Using internet search data as economic indicators. *Bank of England Quarterly Bulletin*, 51(2):134–140, 2011. URL `https://www.bankofengland.co.uk/quarterly-bulletin/2011/q2/using-internet-search-data-as-economic-indicators`. 64

J. Mellon. Where and when can we use Google Trends to measure issue salience? *PS: Political Science & Politics*, 46(2):280–290, 2013. 31, 32, 33

J. Mellon. Internet search data and issue salience: The properties of Google Trends as a measure of issue salience. *Journal of Elections, Public Opinion and Parties*, 24(1): 45–72, 2014. 31, 32, 33

A. R. Miller and C. Segal. Do female officers improve law enforcement quality? effects on crime reporting and domestic violence. *Review of Economic Studies*, 86(5):2220–2276, 2019. 18, 23, 24

A. R. Miller, C. Segal, and M. K. Spencer. Effects of the COVID-19 pandemic on domestic violence in Los Angeles. *NBER Working Paper*, (28068), 2020. 5, 24

C. Nicholson and H. Deshong. Grenada women's health and life experiences study 2018 report, 2018. Grenada Women's Health and Life Experiences Study (WHLES). 15

Organization of American States. Inter-american convention on the prevention, punishment and eradication of violence against women (Convention of Belém do Pará). `https://www.oas.org/juridico/english/treaties/a-61.html`, 1994. Adopted at Belém do Pará, Brazil, 9 June 1994. 2

T. Palermo, J. Bleck, and A. Peterman. Tip of the iceberg: reporting and gender-based violence in developing countries. *American Journal of Epidemiology*, 179(5):602–612, 2014. doi: 10.1093/aje/kwt295. URL https://doi.org/10.1093/aje/kwt295. 2, 11, 17, 19, 31

S. M. Perez-Vincent and E. Carreras. Domestic violence reporting during the Covid-19 pandemic: evidence from Latin America. *Review of Economics of the Household*, pages 1–32, 2022. 18, 20, 24, 27

S. M. Perez-Vincent, V. Abril, C. Chen, T. Tayo, and A. U. Jimenez. Crime underreporting in Latin America and the Caribbean. 2024. 23

K. V. Rhodes and D. Houry. Intimate partner violence and emergency departments: New tools and screening for better care. *Journal of the American Medical Association*, 302 (5):563–564, 2009. 19

T. N. Richards, J. Nix, S. M. Mourtgos, and I. T. Adams. Comparing 911 and emergency hotline calls for domestic violence in seven cities: What happened when people started staying home due to COVID-19? *Criminology & Public Policy*, 20(3):573–591, 2021. doi: 10.1111/1745-9133.12564. URL https://doi.org/10.1111/1745-9133.12564. 5

C. A. Riddell, K. Neumann, N. J. Santaularia, and S. M. Mason. Excess Google searches for child abuse and intimate partner violence during the COVID-19 pandemic: Infoveillance approach. *Journal of Medical Internet Research*, 24(6):e36445, 2022. 30, 31

L. Sardinha, M. Maheu-Giroux, H. Stöckl, S. R. Meyer, and C. García-Moreno. Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. *The Lancet*, 399(10327):803–813, 2022. doi: 10.1016/S0140-6736(21)02664-7. URL https://doi.org/10.1016/S0140-6736(21)02664-7. 2

T. Schmidt and S. Vosen. Forecasting consumer purchases using Google Trends. *International Journal of Forecasting*, 29(1):38–41, 2013. doi: 10.1016/j.ijforecast.2012.08.004. 29

A. Silverio-Murillo, J. R. Balmori de la Miyar, and L. Hoehn-Velasco. Families under confinement: COVID-19, domestic violence, and alcohol consumption. *Domestic Violence, and Alcohol Consumption (September 7, 2020)*, 2020. 5

S. Stephens-Davidowitz. The cost of racial animus on a black candidate: Evidence using Google search data. *Journal of Public Economics*, 118:26–40, 2014a. 31, 32

S. Stephens-Davidowitz. The cost of racial animus on a black candidate: Evidence using Google search data. NBER Working Paper 19930, 2014b. URL `https://www.nber.org/papers/w19930`. 64

S. M. Stith, K. H. Rosen, K. A. Middleton, D. L. Busch, K. Lundeberg, and R. P. Carlton. The intergenerational transmission of spouse abuse: a meta-analysis. *Journal of Marriage and Family*, 62(3):640–654, 2000. doi: 10.1111/j.1741-3737.2000.00640.x. URL `https://doi.org/10.1111/j.1741-3737.2000.00640.x`. 2

C.-W. Su et al. Do Google Trends forecast unemployment in china? *Applied Economics Letters*, 21(12):879–883, 2014. doi: 10.1080/13504851.2014.896979. 64

T. Suhoy. Query indices and a 2008 downturn: Israeli data. Technical report, Bank of Israel, 2009. 64

N. Tefft. Insights on the economic determinants of depression and anxiety: Evidence from Google searches. *Economics Letters*, 111(1):9–12, 2011. doi: 10.1016/j.econlet.2010.12.004. 64

Y. Teng, D. Bi, G. Xie, Y. Jin, and X. Jin. Google dengue trends: An indicator of epidemic behaviour. *Epidemiology & Infection*, 145(11):2252–2259, 2017. doi: 10.1017/S0950268817000938. 29

The DHS Program. Demographic and health surveys. `https://dhsprogram.com/`, 2024. Rockville, MD: ICF. The DHS Program assists countries worldwide in the collection and use of data to monitor and evaluate population, health, and nutrition programs. 3

UNICEF. Multiple Indicator Cluster Surveys (MICS). `https://mics.unicef.org/`, 2025. Accessed November 12, 2025. 7

M. R. Vicente, A. J. López-Menéndez, and R. Pérez. Forecasting unemployment with Google searches. *Telecommunications Policy*, 39(7):613–625, 2015. doi: 10.1016/j.telpol.2015.04.005. 64

C. Watson Williams. Women's health survey 2016: Jamaica. final report, 2018. 15

A Appendix. National Surveys

This appendix summarizes national surveys that include information on DV. Each subsection gives a brief background paragraph followed by harmonized metadata.

Argentina — Encuesta de Prevalencia de Violencia contra las Mujeres (2021)

Implemented by the Ministry of Women, Gender and Diversity with Spotlight Initiative support, this is Argentina's first dedicated prevalence survey.

- **Coverage** — 25 mid- to large-sized cities in 12 provinces.
- **Sample size** — 12,152 women aged 18–65.
- **Violence modules** — Physical, psychological, sexual, economic/patrimonial; sexual abuse by non-partners.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 45% lifetime IPV among ever-partnered respondents.

Bolivia — Encuesta de Prevalencia y Características de la Violencia contra las Mujeres (2016)

Implemented by the Ministry of Justice and Institutional Transparency, and the National Institute of Statistics.

- **Coverage** — National (rural and urban).
- **Sample size** — 14,482 women aged 15 or older from 7,241 households.
- **Violence modules** — Physical, psychological, sexual, economic/patrimonial.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 74.7 % lifetime IPV among ever-partnered respondents.

Chile — Encuesta de Violencia contra la Mujer (ENVIF-VCM, 2008, 2012, 2017, 2020, 2024)

Carried out by the Under-secretary for Crime Prevention, ENVIF-VCM is Chile's fifth VAW survey. The fourth survey was the first to interview women over 65, and the fifth

is the first that includes women from rural areas in the regions of La Araucanía, Biobío, Los Ríos, and Los Lagos.

- **Coverage** — National (rural and urban).
- **Sample size** — 7,735 women (6 775 aged 15–65; 960 aged 66+) in 2020. In 2024, 11,000 women aged 15 or older.
- **Violence modules** — Psychological, physical, sexual, economic IPV; violence in other settings.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 33.4% lifetime IPV among ever-partnered respondents in 2024.

Dominican Republic — Encuesta Experimental sobre la Situación de las Mujeres (2018)

Implemented by the National Institute of Statistics.

- **Coverage** — National (rural and urban)
- **Sample size** — 4,083 women aged 15 or older.
- **Violence modules** — Physical, psychological, sexual, economic/patrimonial.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 68.8% lifetime IPV among ever-partnered respondents.

Ecuador — Encuesta Nacional Sobre Relaciones Familiares y Violencia de Género Contra las Mujeres (ENVIGMU) (2011, 2019)

The National Statistics Institute expanded the second round to include digital, obstetric, and political violence, positioning ENVIGMU as one of the region's most comprehensive instruments.

- **Coverage** — National, (urban and rural).
- **Sample size** — 20,848 households (2019).
- **Violence modules** — Physical, psychological, sexual, patrimonial, digital, obstetric, political.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 43% lifetime IPV among women.

El Salvador — Encuesta Nacional de Violencia Contra las Mujeres (2017)

Carried out by the General Directorate of Statistics and Censuses.

- **Coverage** — National.
- **Sample size** — Around 11 000 women aged 15 or older.
- **Violence modules** — Physical, psychological, sexual.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 47% lifetime IPV among ever-partnered respondents.

Grenada, Guyana, Jamaica, Suriname, and Trinidad & Tobago — Women's Health Surveys (2016–18)

Conducted under the CARICOM/UN Women/IDB model questionnaire, these are the first nationally representative IPV studies in each of the five countries and follow a harmonized survey design.

- **Coverage** — National (urban and rural) samples of ever-partnered women.
- **Sample size** — Sample sizes range from about 1,000 to 1,800 women aged 15–64; in Suriname and Trinidad & Tobago, 1,527 and 1,079 women respectively.
- **Violence modules** — Physical, sexual, emotional and economic IPV; non-partner sexual violence; controlling behaviours; health outcomes.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — Lifetime physical and/or sexual IPV among ever-partnered women aged 15–64: 29% (Grenada, 2018), 38% (Guyana, 2018), 28% (Jamaica, 2016), 32% (Suriname, 2018), and 30% (Trinidad & Tobago, 2017).

Guatemala — Encuesta Nacional de Calidad y Bienestar de los Hogares (2023)

Implemented by the National Institute of Statistics.

- **Coverage** — National (rural and urban)
- **Sample size** — Women aged 15 or older from 18,120 households.
- **Violence modules** — Physical, psychological, sexual, economic/patrimonial.
- **Reference periods** — Lifetime and past 12 months.

- **Latest prevalence** — 23.9% lifetime IPV among ever-partnered respondents.

Honduras — Encuesta Nacional Especializada de Violencia contra las Mujeres y Niñas de 15 años y más (2022)

Coordinated by the National Institute of Statistics and supported by the United Nations Development Programme (UNDP) and the United States Agency for International Development (USAID).

- **Coverage** — 5 domains: Central District, San Pedro Sula, prioritized/selected municipalities (La Ceiba, Comayagua, Choloma, Gracias, Danlí, El Progreso, Olanchito and Juticalpa), other urban areas, other rural areas.
- **Sample size** — 7,200 women aged 15 or older.
- **Violence modules** — Physical, psychological, sexual, economic/patrimonial.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 35.4% lifetime IPV among ever-partnered respondents.

Mexico — Encuesta Nacional sobre la Dinámica de las Relaciones en los Hogares (ENDIREH) (2003, 2006, 2011, 2016, 2021)

ENDIREH is the only survey in the region fielded on a regular five-year cycle, produced by Instituto Nacional de Estadisticas y Geografía (INEGI) with full national coverage.

- **Coverage** — National (urban and rural).
- **Sample size** — 145,000 women aged 15 or older (2021).
- **Violence modules** — Physical, sexual, psychological, economic, patrimonial IPV; violence in community, school, workplace.
- **Reference periods** — Lifetime and past 12 months for each violence module.
- **Latest prevalence** — 42% lifetime IPV; 70% experienced violence in at least one type.

Nicaragua — Encuesta Nicaragüense de Demografía y Salud (ENDESA), DV Module (2011/12)

ENDESA embeds a WHO-adapted DV module in the country's DHS, enabling cross-national comparability.

- **Coverage** — National (urban and rural).
- **Sample size** — Approx. 13 500 households; women 15–49 interviewed.
- **Violence modules** — Psychological, physical, sexual IPV; non-partner sexual violence; help-seeking.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 25% lifetime physical and/or sexual IPV (DHS report).

Paraguay — Encuesta Nacional Sobre la Situación de las Mujeres (2021)

Carried out by the Ministry of the Interior, the National Institute of Statistics, and the Ministry of Women, with technical support from the Inter-American Development Bank (IDB)

- **Coverage** — National (rural and urban)
- **Sample size** — 4,000 women aged 18 or older.
- **Violence modules** — Physical, psychological, sexual, economic/patrimonial.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 46.2% lifetime IPV among ever-partnered respondents.

Peru — Encuesta Demográfica y de Salud Familiar (2023)

Implemented by the National Institute of Statistics and Information

- **Coverage** — National (rural and urban).
- **Sample size** — 35,657 women aged 18—49.
- **Violence modules** — Physical, psychological, sexual.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 53.8% lifetime IPV among ever-partnered respondents.

Uruguay — Encuesta de Prevalencia de Violencia Basada en Género y Generaciones (ENPVBGG) (2013, 2019)

Designed with WHO ethical guidelines, ENPVBGG incorporates economic and digital abuse and oversamples smaller departments for precision.

- **Coverage** — National, urban and rural.
- **Sample size** — 3,887 women aged 15+ (2019).
- **Violence modules** — Psychological, physical, sexual, economic IPV; violence in social, educational and workplace settings.
- **Reference periods** — Lifetime and past 12 months.
- **Latest prevalence** — 47% lifetime.

B Appendix. Literature Using Google Trends

Predicting unemployment, GDP, and consumer behavior. Since the Great Recession, researchers have used Google search activity as a high-frequency proxy for economic conditions. Early applications showed that queries about job search and benefits improve short-term forecasts of unemployment in Germany (Askitas and Zimmermann, 2009), the United States (Choi and Varian, 2009, 2012), France (Fondeur and Karamé, 2013), Italy (Francesco, 2009), Spain (Vicente et al., 2015), the United Kingdom (McLaren and Shanbhogue, 2011), Israel (Suhoy, 2009), Norway (Anvik and Gjelstad, 2010), and China (Su et al., 2014). Beyond labor markets, subsequent work has linked searches to macro indicators (e.g., GDP nowcasting) and household behavior (e.g., consumption intentions).

Politics. Search data have also been used to track political attention and electoral dynamics—for example, to study the 2008 U.S. presidential election and the role of racial animus (Stephens-Davidowitz, 2014b).

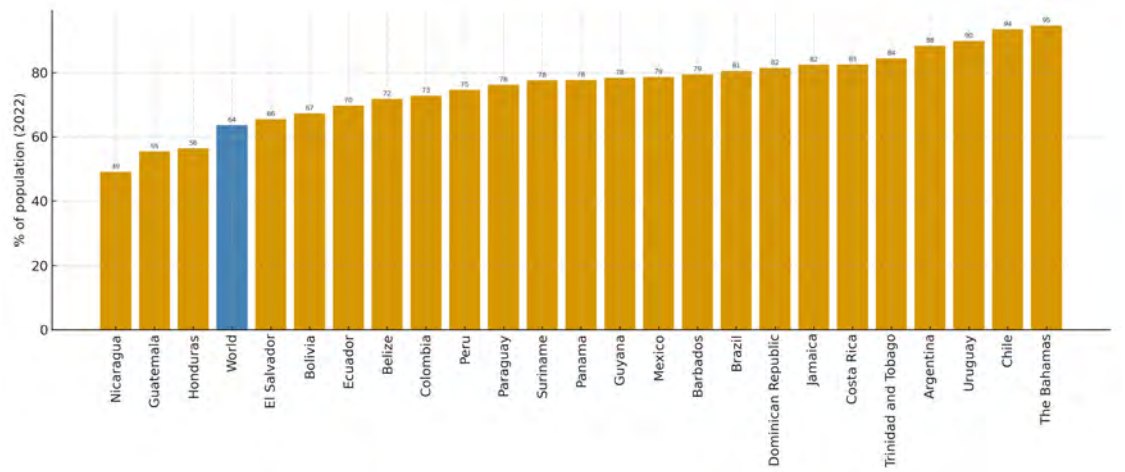
Health. Digital epidemiology has demonstrated that search queries can contain timely signals about population health. Seminal work used Google queries to detect influenza activity (Ginsberg et al., 2009). Related studies examine mental health, including seasonality in depression and anxiety via search behavior (Tefft, 2011), and well-being during economic downturns (Askitas and Zimmermann, 2015). Search volumes for fertility-related terms have also been shown to predict births (Billari et al., 2013).

Pandemic. During COVID-19, Google Trends were widely used to monitor social outcomes. Studies documented changes in searches releated to well-being in Europe and the U.S. during lockdowns (Brodeur et al., 2021). Closest to our focus, Berniell and Facchini (2021) construct a DV-search index and find sizable post-lockdown increases across 11 countries. Complementary work from Italy shows that DV search activity and help-seeking responded to awareness campaigns and femicide news, with measurable effects on hotline calls (Colagrossi et al., 2022, 2023).

C Appendix. Internet Penetration in LAC

The internet penetration rate in LAC countries is relatively high. Figure A.1 shows, as of 2022, the internet penetration rate by country for LAC countries with populations greater than 3 million. The global internet penetration rate was 64% in 2022. Except for Honduras, Guatemala, and Nicaragua all of the countries in the graph have a higher percentage of their population that uses the internet than the global average. And all countries examined in the Section 4, in particular, have penetration rates that exceed 80%. This means that nearly four out of every five people in these countries are now online. In some countries, such as Argentina, Uruguay, and Chile, internet penetration is even higher, exceeding 90%.

Figure A.1: Internet Usage in LAC



Note: The figure reports 2022 internet usage rates based on the World Bank's "Individuals Using the Internet" indicator (IT.NET.USER.ZS). Data retrieved from World Bank Open Data, accessed November 22, 2025.

Such high rates of internet use lend support to the use of internet searches in the countries of the region to create indicators like the one examined in this work. It seems that, at least for most countries, the majority of the population has access to internet, making such indicators more representative of the whole population. However, for Google Trends to return a non-zero number of searches, what matters are the total number of searches, independent of the share of the population that is covered. While large countries have virtually no week without searches, for countries with less than about 15 million users that number of empty weeks starts to rise. For this reason, for most of the analysis in

Section 4 we use Google searches for countries with a share of null searches below 2%, namely Brazil, Mexico, Colombia, Argentina, Peru, Chile, and Ecuador.

D Appendix. Reconstructing the Google "Domestic Violence" Topic

This appendix shows that the Google Trends index for the topic "domestic violence" can be closely replicated using three Spanish-language queries: "violencia familiar", "violencia intrafamiliar", and "violencia doméstica". For each country c, we estimate:

$$\text{Topic}_{c,t} \;=\; \alpha_c \;+\; \beta_1 \,\text{fam}_{c,t} \;+\; \beta_2 \,\text{intra}_{c,t} \;+\; \beta_3 \,\text{dom}_{c,t} \;+\; \varepsilon_{c,t}, \tag{4}$$

where $\text{Topic}_{c,t}$ is the (0–100) Google Trends index for the "domestic violence" topic, and $\{\text{fam}, \text{intra}, \text{dom}\}$ are the corresponding indices (0–100) for the three Spanish terms.

Results. The fit of the model is consistently high across countries. The median in-sample R^2 is 0.79, while the pooled regression with country fixed effects yields $R^2 \simeq 0.72$.[17] Table A.1 reports, by country, the number of weeks available and the corresponding R^2 in-sample and out-of-sample.

[17] We also validate with a temporal split (80% training, 20% test) within each country. The median out-of-sample R^2 is 0.785.

Table A.1: Reconstructing the Google DV Topic with Three Spanish Terms

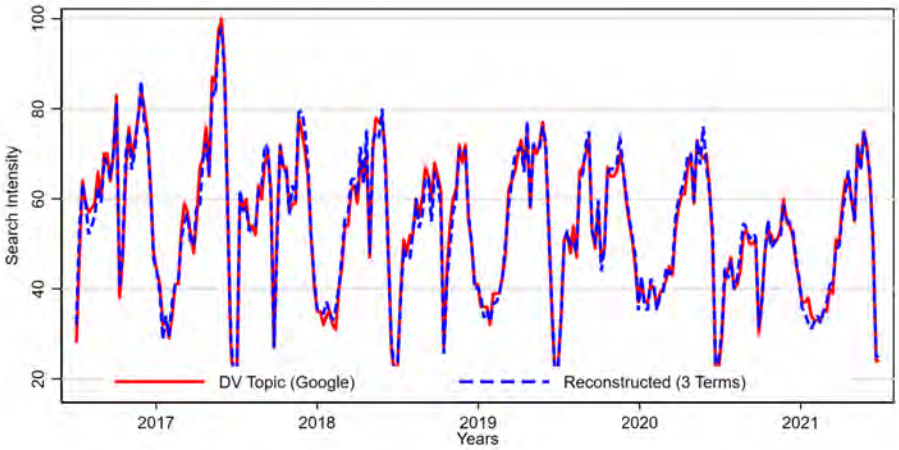
Country	Number of Weeks	R^2 In-Sample	R^2 Out-of-Sample (20%)
Argentina	261	0.892	0.827
Bolivia	261	0.916	0.906
Chile	261	0.867	0.851
Colombia	261	0.966	0.965
Costa Rica	261	0.259	0.206
Dominican Rep.	261	0.918	0.724
Ecuador	261	0.942	0.916
El Salvador	261	0.792	0.571
Guatemala	261	0.748	0.785
Honduras	261	0.418	0.197
Mexico	261	0.981	0.979
Nicaragua	261	0.100	-0.041
Panama	261	0.184	0.231
Paraguay	261	0.723	0.887
Peru	261	0.981	0.939
Uruguay	261	0.446	0.427
Venezuela	261	0.162	0.082

Note: R^2 In-Sample is from an OLS regression of the Google DV index on three Spanish terms ("violencia familiar", "violencia intrafamiliar", "violencia doméstica") with an intercept, estimated separately by country. R^2 Out-of-Sample is computed on a 20% holdout. "Number of Weeks" reflects the available weekly observations per country. Negative out-of-sample R^2 indicates poor generalization, typically in low-volume settings.

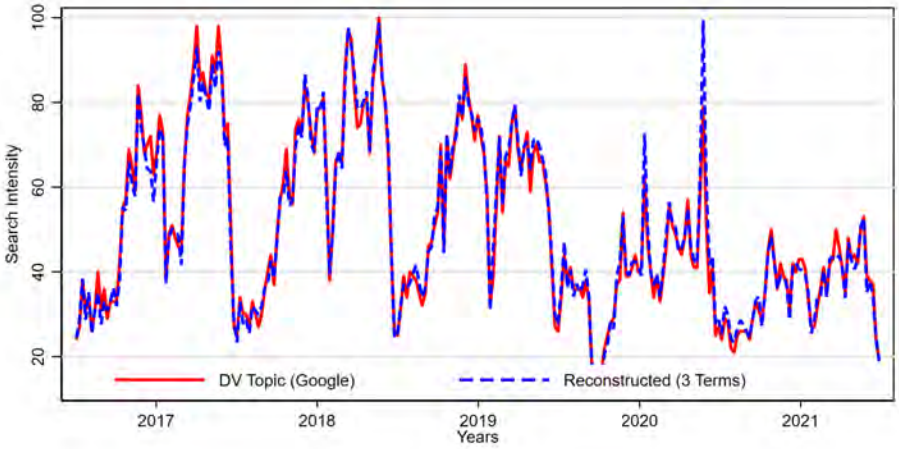
Figure A.2 illustrates the close overlap between the original topic index and the reconstructed index for Mexico, Peru, and Colombia, respectively. In the few cases with lower fit, the series are characterized by frequent zeros or short observation windows.

Figure A.2: Topic Index vs. Reconstructed Index (Three Terms)

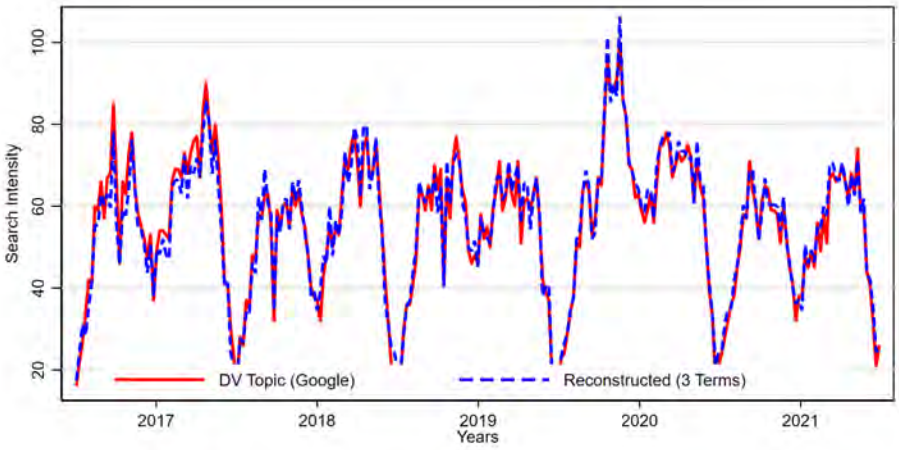
(a) Mexico



(b) Peru



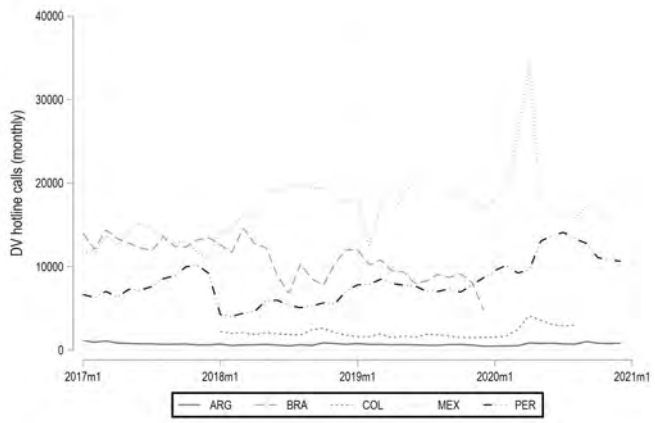
(c) Colombia



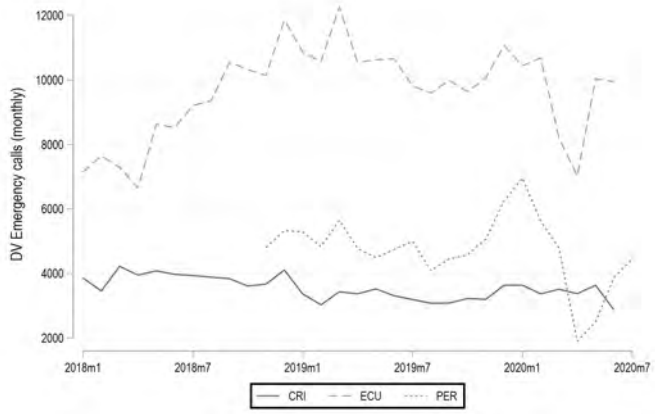
Note: Each panel compares the Google DV Index (solid red line) with a reconstructed index based on three Spanish search terms ("violencia familiar", "violencia intrafamiliar", and "violencia doméstica"; dashed blue line). The close fit shows that the composite Google topic can be effectively replicated using only these three terms.

E Appendix. Additional Figures and Tables

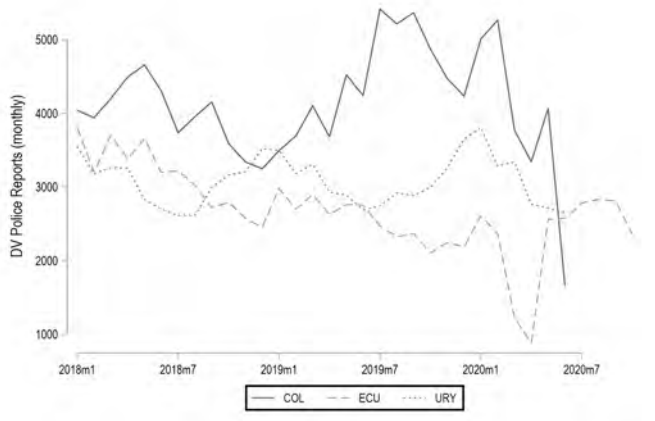
Figure A.3: Administrative Data: Time Series by Channel



(a) DV hotline calls



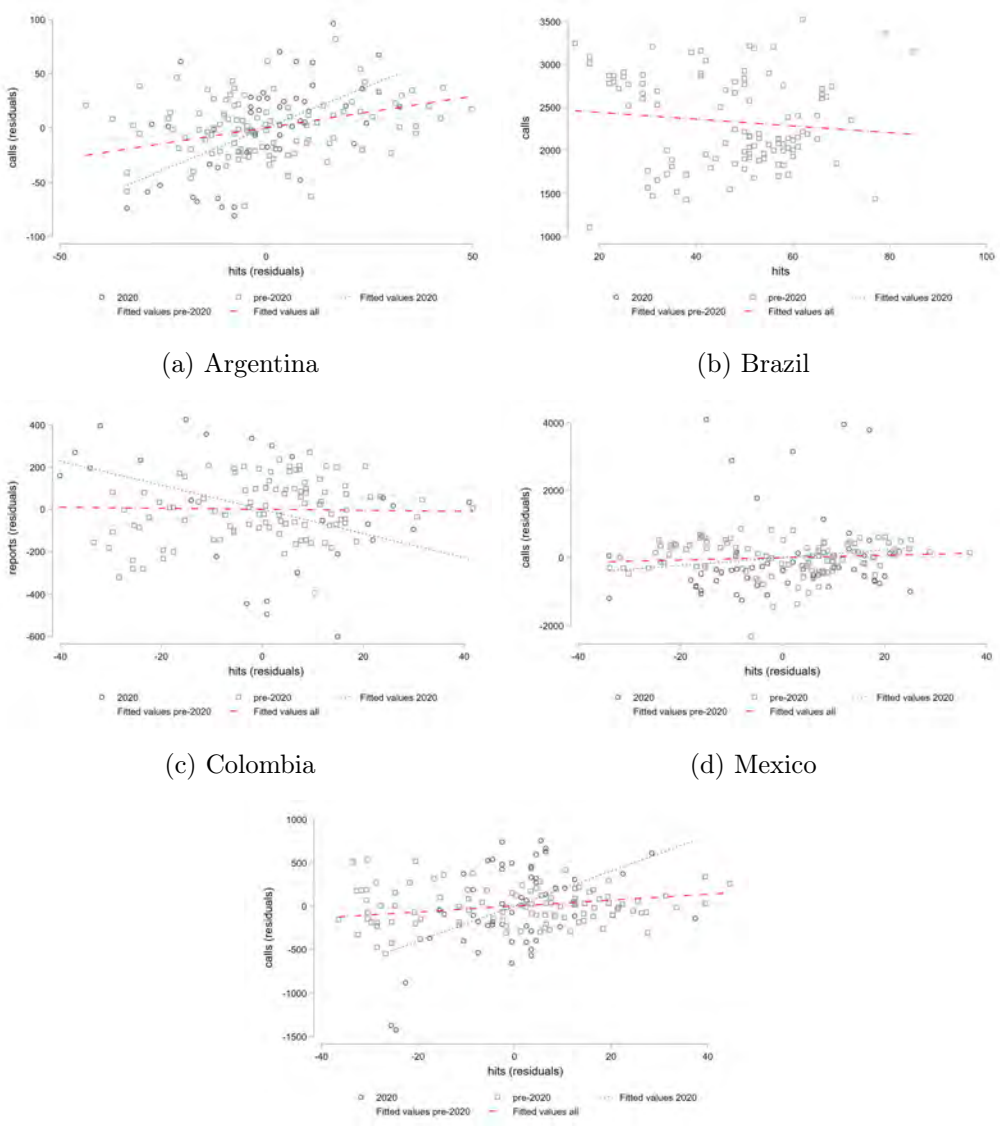
(b) DV emergency line calls



(c) DV police reports

Note: The figure shows the trends in the different administrative data sources.

Figure A.4: Correlation between DV Hotline Calls and Google DV Index



(a) Argentina

(b) Brazil

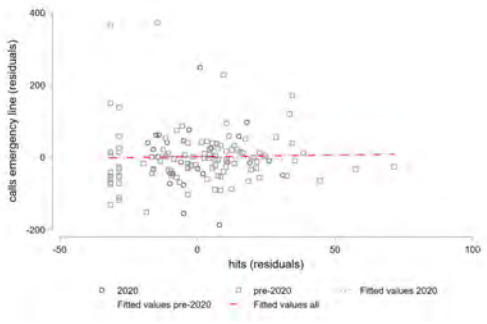
(c) Colombia

(d) Mexico

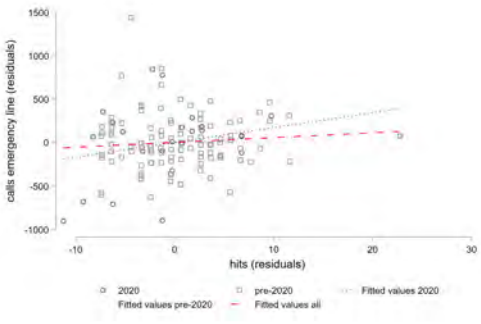
(e) Peru

Note: Each panel plots the relationship between weekly Google searches for DV topics and calls to DV hotlines. The sample is divided into two periods: 2020 (circles) and pre-2020 (squares). Data points represent residuals from regressions with year fixed effects. The red lines indicate fitted values for each period and for the full sample.

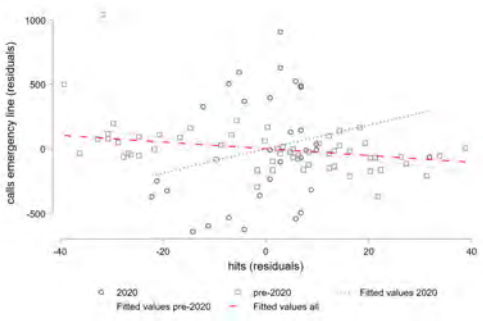
Figure A.5: Correlation between DV-Related Emergency Line Calls and Google DV Index



(a) Costa Rica



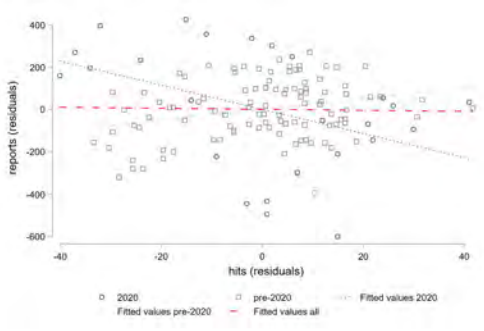
(b) Ecuador



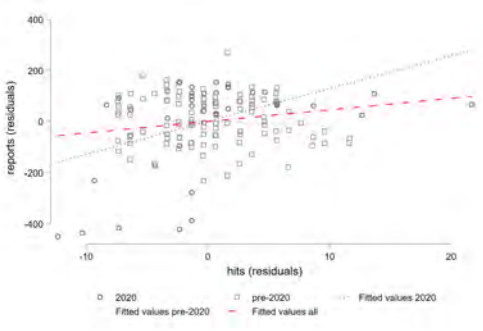
(c) Peru

Note: Each panel plots the relationship between weekly Google searches for DV topics and calls to general emergency hotlines reporting DV incidents. The sample is divided into two periods: 2020 (circles) and pre-2020 (squares). Data points represent residuals from regressions with year fixed effects. The red lines indicate fitted values for each period and for the full sample.

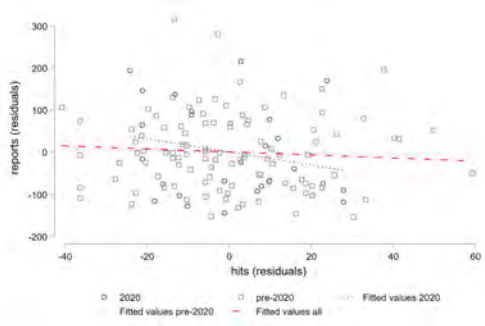
Figure A.6: Correlation between DV Police Reports and Google DV Index



(a) Colombia



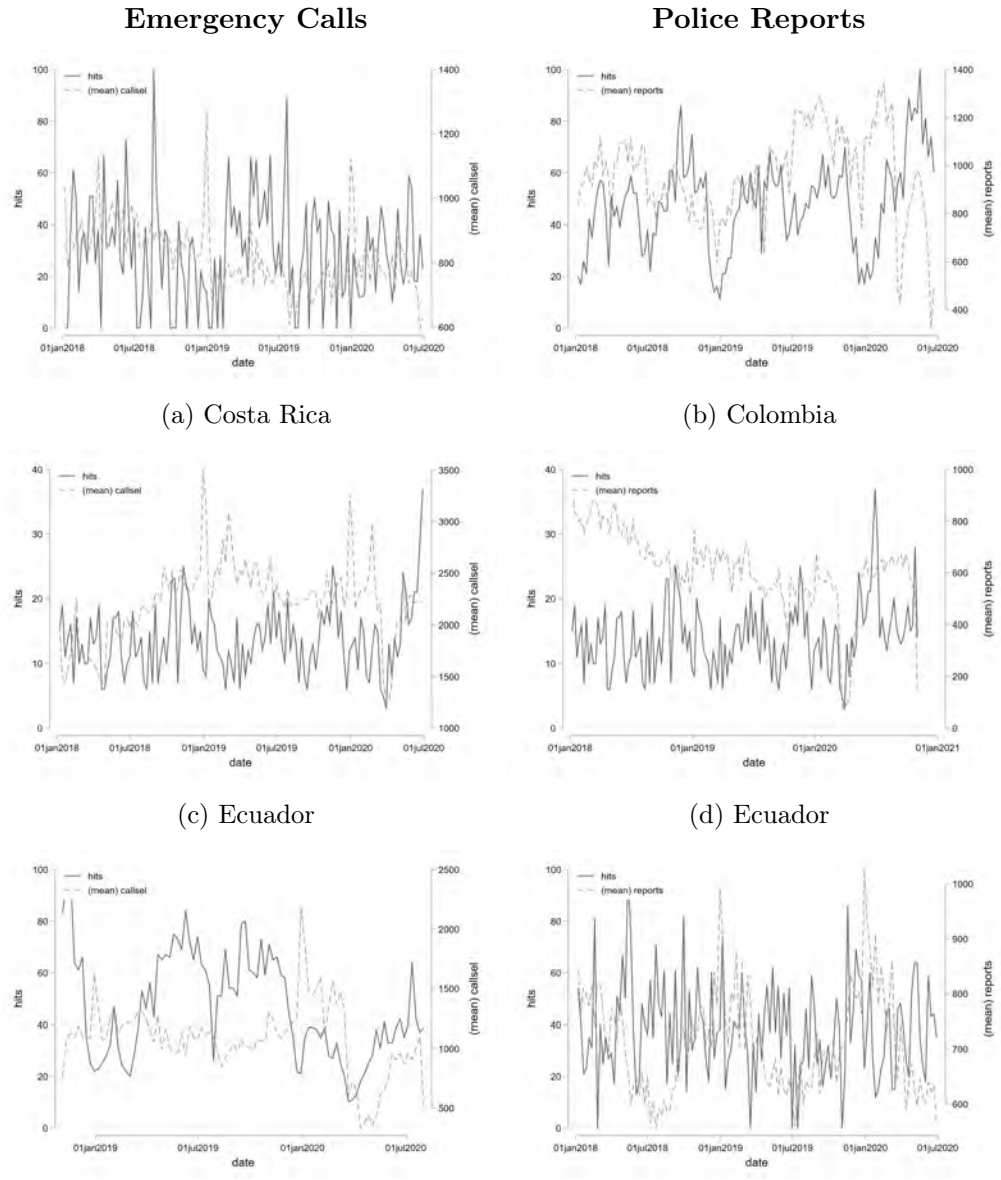
(b) Ecuador



(c) Uruguay

Note: Each panel plots the relationship between weekly Google searches for DV topics and police reports of DV cases. The sample is divided into two periods: 2020 (circles) and pre-2020 (squares). Data points represent residuals from regressions with year fixed effects. The red lines indicate fitted values for each period and for the full sample.

Figure A.7: Co-Movement of DV-Related Google Searches, Emergency Line Calls, and Police Reports



(a) Costa Rica

(b) Colombia

(c) Ecuador

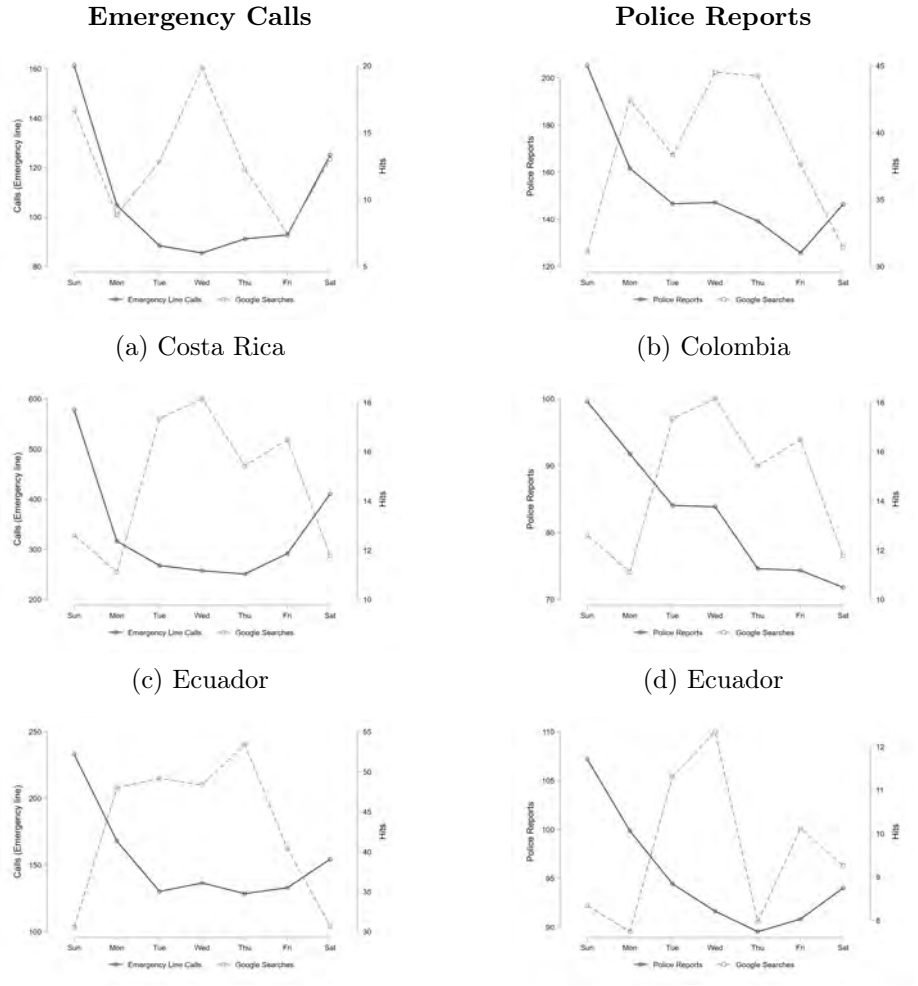
(d) Ecuador

(e) Peru

(f) Uruguay

Note: Each panel compares the weekly evolution of DV-related Google searches (solid line) with either emergency line calls or police reports (dashed line). The left column displays emergency calls; the right column displays police reports.

Figure A.8: Day-of-the-Week Patterns in DV-Related Emergency Calls and Police Reports



(a) Costa Rica

(b) Colombia

(c) Ecuador

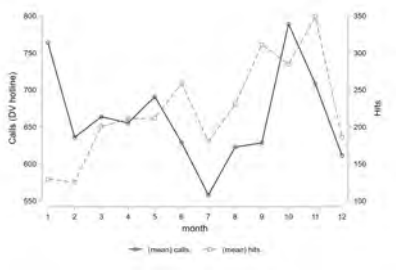
(d) Ecuador

(e) Peru

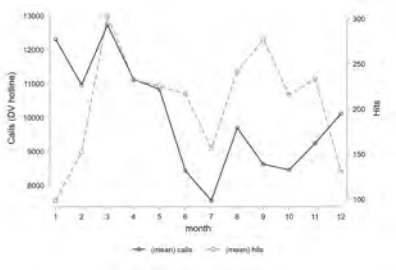
(f) Uruguay

Note: Figures show the daily distribution of DV-related emergency line calls and police reports from March 1, 2019, to November 1, 2019, separately by country and data source.

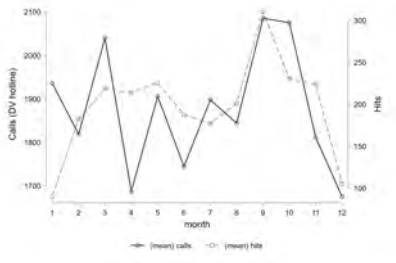
Figure A.9: Google Searches and DV Hotline Calls by Month



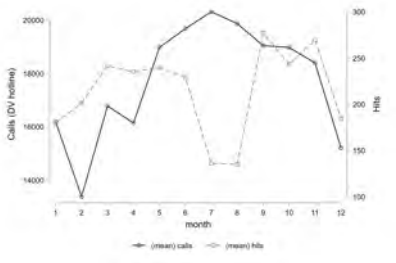
(a) Argentina



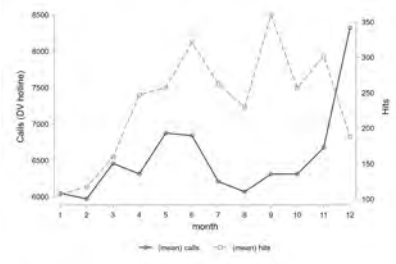
(b) Brazil



(c) Colombia



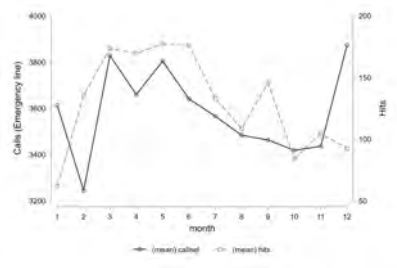
(d) Mexico



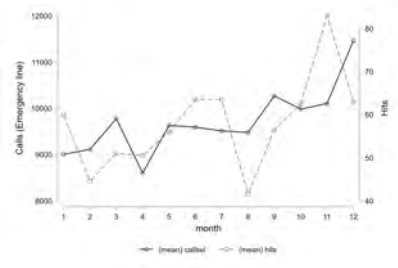
(e) Peru

Note: The sample consists of weekly counts of DV-related Google searches and DV hotline calls between 2017 and 2019 (time period varies depending on country availability).

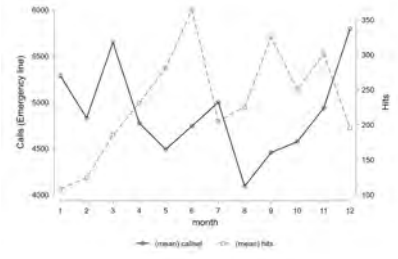
Figure A.10: Google Searches and DV Emergency Line Calls by Month



(a) Costa Rica



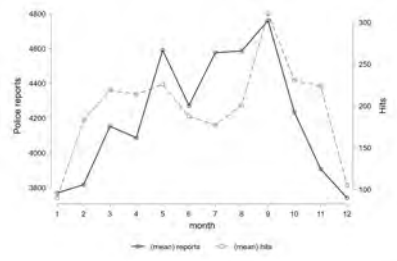
(b) Ecuador



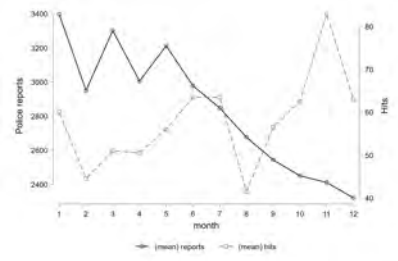
(c) Peru

Note: The sample consists of weekly counts of DV-related Google searches and DV emergency line calls between 2017 and 2019 (time period varies depending on country availability).

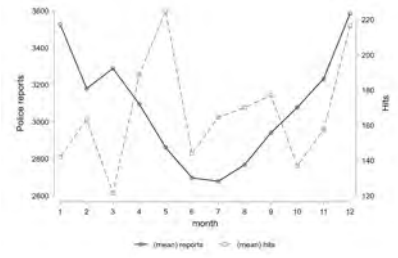
Figure A.11: Google Searches and DV Police Reports by Month



(a) Colombia



(b) Ecuador



(c) Uruguay

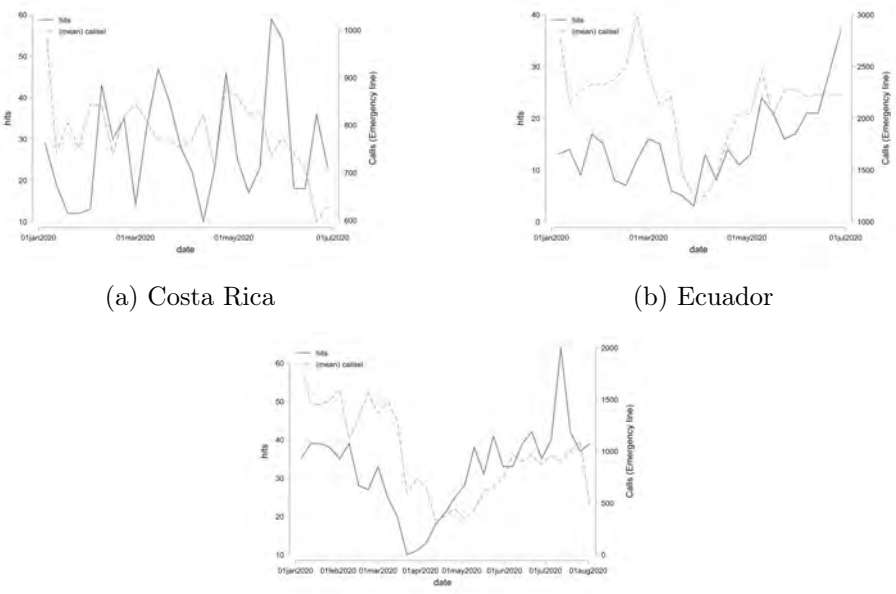
Note: The sample consists of weekly counts of DV-related Google searches and DV police reports between 2017 and 2019 (time period varies depending on country availability).

Table A.2: Regression of DV Helpline Calls on Google Searches, Pooled Estimates

	(1)	(2)	(3)	(4)	(5)
Lagged DV Helpline Calls (log, 1 mo.)	0.65***	0.57***	0.58***	0.34***	
	(0.029)	(0.031)	(0.031)	(0.036)	
Google DV Search Index (log)			0.078***	0.11***	0.11***
			(0.024)	(0.027)	(0.027)
N	706	706	706	706	726
R^2	0.973	0.976	0.977	0.983	0.981
FE country	Yes	Yes	Yes	Yes	Yes
FE year		Yes	Yes	Yes	Yes
FE month		Yes	Yes	Yes	Yes
Country trends				Yes	Yes
Country seasonality				Yes	Yes

Notes: Dependent variable is the weekly (log) number of calls to the DV hotline, pooled across countries. Independent variables include lagged DV helpline calls (log, 1 month), the Google DV search index (log), and fixed effects as specified. Data cover Jan-2017 to Dec-2021, subject to availability by country (see Table 3). Standard errors in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Figure A.12: Google Searches and DV Emergency Line Calls in 2020



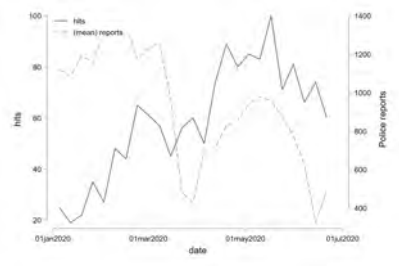
(a) Costa Rica

(b) Ecuador

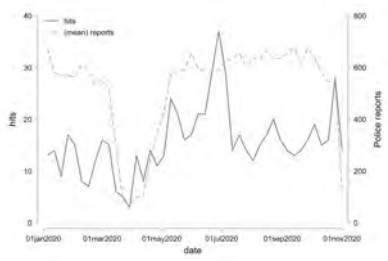
(c) Peru

Note: The sample consists of weekly counts of DV-related Google searches and DV emergency line calls during 2020.

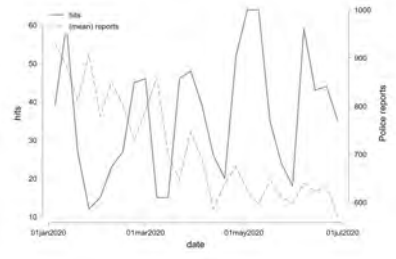
Figure A.13: Google Searches and DV Police Reports in 2020



(a) Colombia



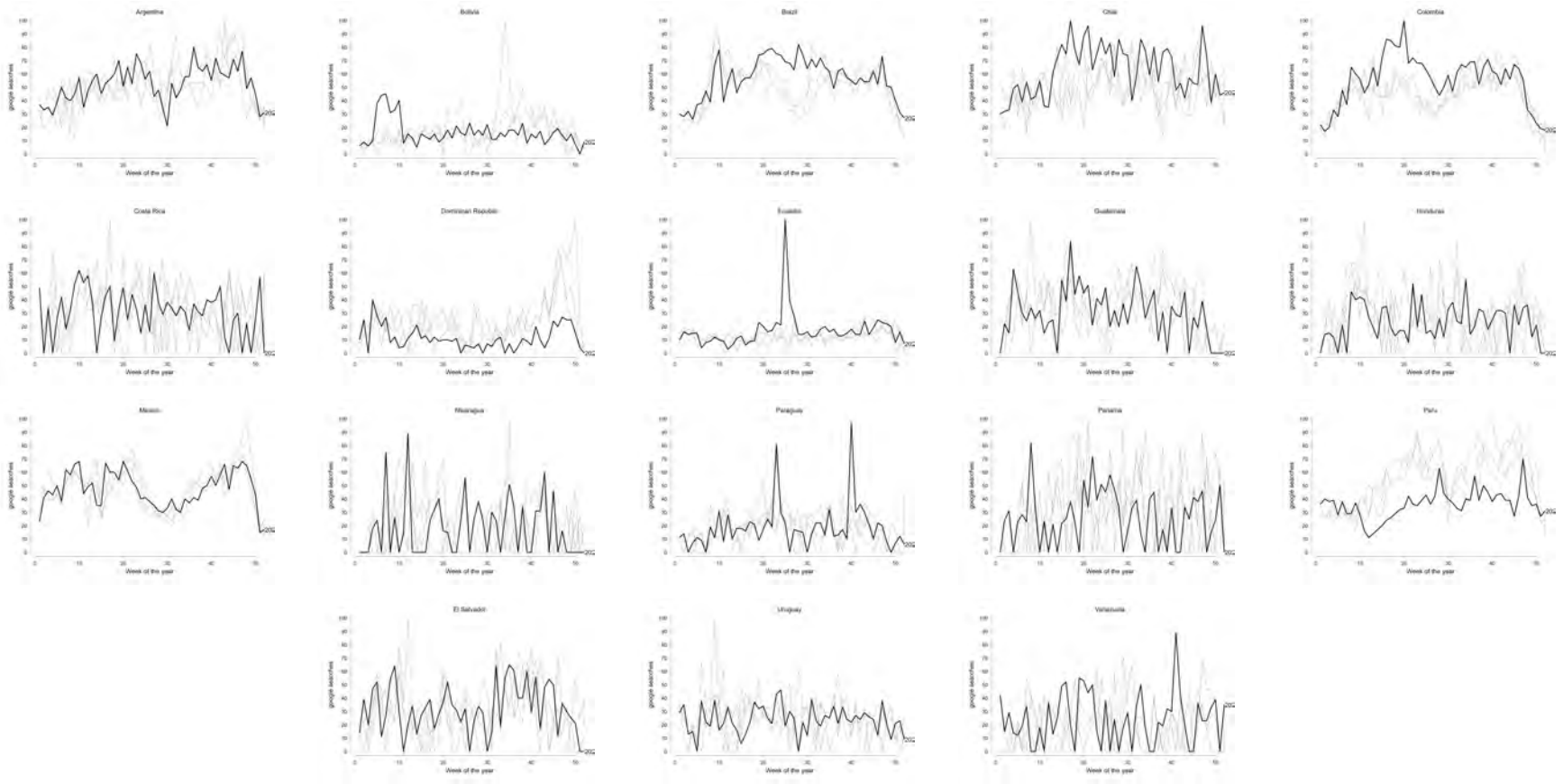
(b) Ecuador



(c) Uruguay

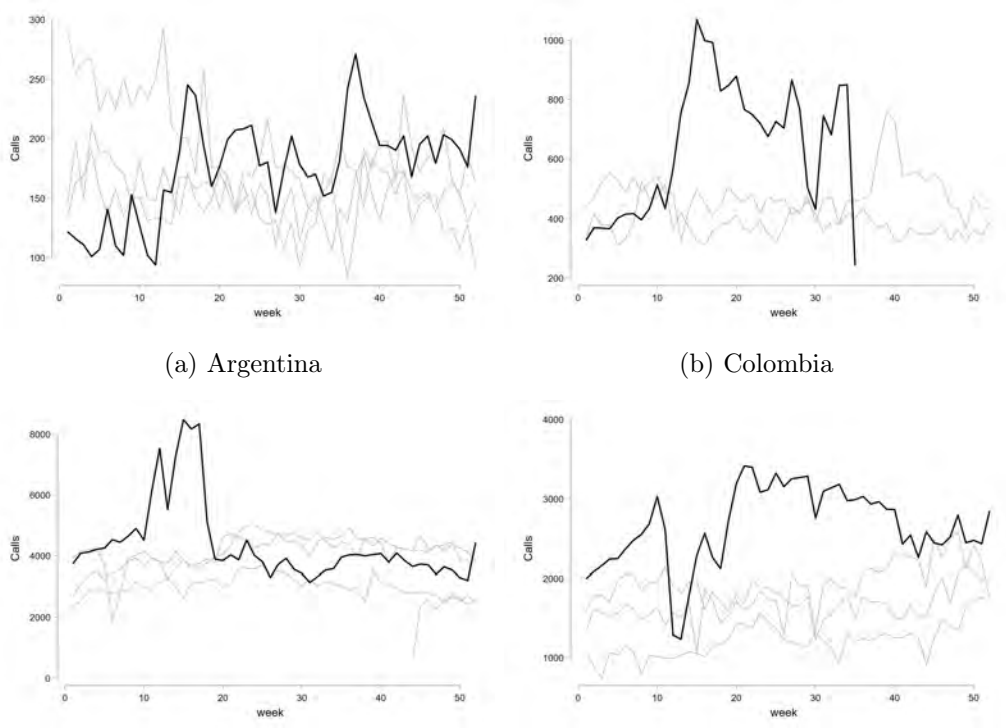
Note: The sample consists of weekly counts of DV-related Google searches and DV police reports during 2020.

Figure A.14: By Country: Google Search Trends in 2020 vs. Previous Years



Note: Each panel plots weekly Google search intensity for DV-related topics in 2020 (bold black line) and for each of the previous four years (grey lines), by week of the year.

Figure A.15: DV Hotline Calls in 2020 vs. Previous Years



(a) Argentina

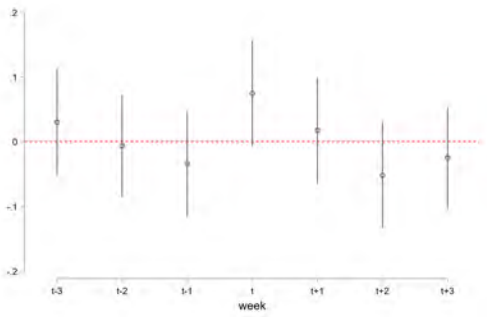
(b) Colombia

(c) Mexico

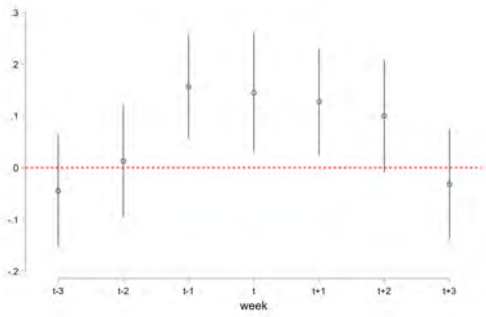
(d) Peru

Note: Each panel plots the weekly volume of DV hotline calls in 2020 (bold black line) and in previous years (grey lines), by week of the year.

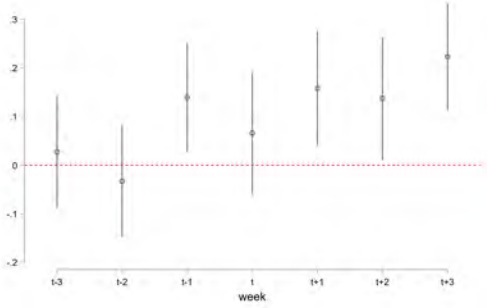
Figure A.16: Timing of Correlation Between DV Hotline Calls and Google Searches



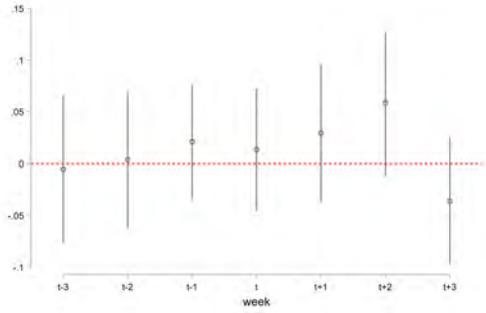
(a) Argentina



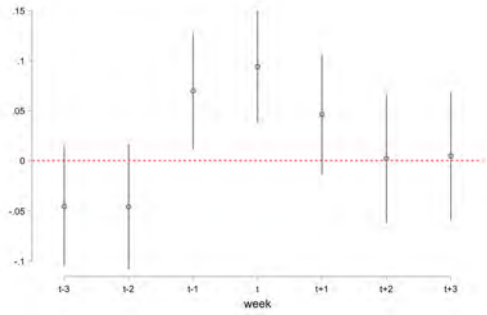
(b) Brazil



(c) Colombia



(d) Mexico



(e) Peru

Note: Each figure shows the coefficients and 90% confidence intervals from regressions of the (log) number of DV hotline calls on the (log) intensity of Google searches, from three weeks before to three weeks after. Regressions include year and month fixed effects and a lagged dependent variable.