Desarrollo y Sociedad
ISSN: 0120-3584
ISSN: 1900-7760
revistadesarrolloysociedad@uniandes.edu.co
Universidad de Los Andes
Colombia

Álvarez-Garavito, Carolina; Acosta González, Hugo Nicolás
Femicide in Latin America: An economic approach
Desarrollo y Sociedad, núm. 88, 2021, Julio-, pp. 11-42
Universidad de Los Andes
Bogotá, Colombia

DOI: https://doi.org/10.13043/DYS.88.1

Disponible en: https://www.redalyc.org/articulo.oa?id=169167260002

Revista
Desarrollo y Sociedad

88 | 11
Segundo cuatrimestre 2021
PP. 11-42, ISSN 0120-3584
E-ISSN 1900-7760

Femicide in Latin America: An economic approach

Carolina Álvarez-Garavito[1]
Hugo Nicolás Acosta-González[2]

DOI: 10.13043/DYS.88.1

Abstract

Justification: The rising cases of femicide across Latin America have pushed governments to enact specific laws criminalizing this gender-based murder to deter violence and crime against women. However, given the lack of data, the effect of these legislations is unknown. We aim to understand the causes and mechanisms of femicide across Latin American countries, as well as the possible effect of the legislation on femicide rate. We propose an economic approach that combines ideas proposed by Becker's economics of crime and bargaining household models to understand the mechanisms behind femicide. The proposed approach suggests that legislation has a positive effect on reducing the number of murders of women by increasing the likelihood of the criminal being convicted and punished, thus changing these criminals' incentives to commit the crime. However, government inaction and impunity towards femicide may impede the effectiveness of legislation in deterring criminal behavior. As data on femicide becomes available, the effect of the legislation on femicide rates could be estimated using a difference in difference method.

Keywords: Intimate Partner Violence, Legislation, Microeconomics, Latin America

JEL Code: K14, N36

---

1 Pontificia Universidad Católica del Ecuador, Facultad de Economía, Quito, Ecuador. Email: calvarez324@puce.edu.ec

2 Pontificia Universidad Católica del Ecuador, Facultad de Economía, Quito, Ecuador. ORCID ID: 0000-0002-3782-1115. Email: hnacosta@puce.edu.ec

This paper was received on July 23, 2020, revised on February 11, 2021, and finally accepted on April 19, 2021.

12 | 88
Segundo cuatrimestre 2021
PP. 11-42, ISSN 0120-3584
E-ISSN 1900-7760

Revista
Desarrollo y Sociedad

El feminicidio en América Latina: Un enfoque económico

Carolina Álvarez Garavito[3]
Hugo Nicolás Acosta González[4]

DOI: 10.13043/DYS.88.1

Resumen

Justificación: El creciente número de casos de femicidio en América Latina ha impulsado a los gobiernos de la región a tipificarlo como delito para disuadir la violencia y el crimen contra las mujeres. Sin embargo, se desconoce el efecto de estas leyes por la falta de datos disponibles. Se pretende conocer las causas y mecanismos del femicidio en los países de América Latina, así como el posible efecto de las leyes contra este delito. Proponemos un enfoque económico que combina las ideas de la economía del crimen de Becker y los modelos de negociación de los hogares para entender los mecanismos detrás del femicidio. El enfoque propuesto sugiere que la legislación tiene un efecto positivo en la reducción del número de asesinatos de mujeres al aumentar la probabilidad del criminal de ser condenado y castigado, cambiando así los incentivos de los criminales para cometer el delito. Sin embargo, la inacción y la impunidad de los gobiernos hacia el femicidio podrían impedir la eficacia de la legislación para disuadir el comportamiento criminal. A medida que se disponga de mayor cantidad de datos sobre femicidio, se podrá estimar el efecto de la legislación sobre la ocurrencia de este delito utilizando el método de diferencias en diferencias.

Palabras clave: Violencia de pareja, Legislación, Microeconomía, América Latina

Clasificación JEL: K14, N36

3 Pontificia Universidad Católica del Ecuador, Facultad de Economía, Quito, Ecuador. Email: calvarez324@puce.edu.ec

4 Pontificia Universidad Católica del Ecuador, Facultad de Economía, Quito, Ecuador. ORCID ID: 0000-0002-3782-1115. Email: hnacosta@puce.edu.ec

Este artículo fue recibido el 23 de julio del 2020, revisado el 11 de febrero del 2021 y finalmente aceptado el 19 de abril del 2021.

Introduction

Violence against women has been recognized as a severe violation of human rights and an obstacle on the path to gender equality, affecting all women worldwide (WHO, 2005). One of the most common forms of violence against women is Intimate Partner Violence (IPV), perpetrated by a husband or someone close to the victim (Garcia-Moreno and Heise, 2002). Globally, a considerable proportion of women experience IPV, where one out of three women reported having been victims of physical, sexual, or psychological violence from their intimate partner at least once in their lives (WHO, 2013). Defined by Diana Russell as the "*the killing of a female specifically because she is a female,*" femicide is the most severe consequence of IPV (PATH, 2008). About 66,000 women are violently killed every year, accounting for approximately 17% of all victims of intentional homicides (Nowak, 2012).

Domestic abuse and femicide rates are particularly high in Latin America, a region with the second-highest female homicide rate in the world, second only to Africa (WHO, 2013). Among the 25 countries that feature high and very high femicide rates, 14 are in Latin America and the Caribbean (LAC) (Alvazzi del Fratte, 2011), which may explain why several of the region's countries have enacted legislation criminalizing femicide and setting different punishments since 2007. However, academic research on the effectiveness of such laws and its effect on the aggressor's behavior and decisions are scarce (Carrigan, 2016; Saccomano, 2015; Palma Solis, Vives-Caces and Álvarez-Dardet, 2008). The major problem in addressing femicide is the lack of official and reliable data, and the impossibility to compare countries since data collection methods differs across them (Carrigan, 2016).

This paper proposes a novel perspective for addressing the problem of femicide. First, we introduce a simple modification of the ecological model proposed by Heise (1998), to understand the causes and mechanisms of IPV and femicide across the LAC region. Second, we review microeconomic models, much of them inspired by the work of Gary Becker, in order to expose the basic principles of the economics of crime. In this respect, we cover several studies using Bargaining Household Models that explain the interactions of individuals within an abusive relationship (Manser and Brown, 1980; McElroy and Horney, 1981; Farmer and Tiefenthaler, 1997). The basic idea behind the literature review is to expose the insights of economic theory on IPV and

apply them to femicide. We propose an economic approach to femicide that formally expresses the decision-making process of a potential murderer of women and the effects of law enforcement on his incentives to commit the crime. The major conclusion is that, after some analytical considerations, formal economic models support the notion that offenders respond to incentives and, in particular, that punishment and law enforcement might deter the commission of specific crimes, including IPV and femicide. However, governments' inaction and impunity towards murders of women could make such laws fail at their objective to deter femicide.

1. Intimate Partner Violence and Femicide in Latin America

Intimate Partner Violence (IPV) is considered one of the most common forms of violence against women, almost one-third (30%) of all women worldwide have experienced it at some point in their lives (WHO, 2013). This type of violence is defined as the physical, sexual and/or psychological harm perpetrated by a person with whom the victim has a close personal relationship, such as a spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner (Breiding et al. 2015; WHO, 2012). IPV has many repercussions, ranging from direct physical problems like poor health, HIV infections, chronic diseases, mental illness, and substance abuse problems (Hidrobo et al. 2016) to direct and indirect economic costs related to treatment and productivity losses (Waters et al. 2004).

Although this kind of gender-based violence occurs in all settings and among all socioeconomic groups, IPV rates are particularly high in Latin America, where the culture of *machismo* is widely accepted and predominant. This idiosyncrasy conditions gender-roles and encourages constraints on girls' and women's freedom, misogynist behavior, and recurring violence with impunity (Alvazzi del Fratte, 2011). According to the World Health Organization (2013), the Americas reported the second-highest prevalence, with approximately 30% of women experiencing lifetime exposure to intimate partner violence. The highest rates in the region, are found in the Andean area and Central Latin America, with 40.6% and 29.5% of lifetime prevalence of IPV, respectively.

The ultimate and most extreme consequence of IPV is murder (Hidrobo et al. 2016), best known as *femicide.* Diana Russell, feminist activist and author of the term in 2001, defined it as "*the killing of a female specifically because they*

are female,"[5] which means that it is a crime committed under gender-based causes. Within a background of domestic violence, these crimes are not isolated incidents that occur unexpectedly but rather the ultimate act of violence in a continuous relationship of discrimination, oppression, and abuse, which makes them direct killings with an identifiable perpetrator (United Nations, 2012).

The lack of reliable data and scarce official statistics on femicide in Latin American countries, especially time-series data on the occurrence of femicide, impedes a proper evaluation of the severity of the problem (Joseph, 2017). However, by looking at the existing limited data, it is clear that femicide is a big concern within the Latin American region. According to Alvazzi del Fratte (2011), among the 25 countries that feature high and very high gender-related killings of women, 14 are in the Americas: four in the Caribbean, four in Central America, and six in South America[6]. The World Health Organization (2013) showed that the median prevalence of femicide in the region was 38%. According to data compiled by CEPALSTAT and the Gender Equality Observatory for Latin America and the Caribbean for 2017[7], El Salvador has the highest number of perpetrated femicides, with 345 total cases, followed by Argentina with 251 and Honduras with 235. Figure 1 shows femicide data expressed as the total number, as well as the rate per 100,000 for those countries with available data[8].

A proportion of the overall cases of femicide are a consequence of a history of intimate partner violence. As expressed above, many gender-related killings are perpetrated by a current or former partner with a background of domestic abuse. Figure 2 shows the number of IPV-related femicide cases by countries for which data is available for the 2017. For example, out of the 251 cases of femicide in Argentina, 148 were caused by IPV. The number of IPV related killings is very high across Latin American countries, which implies that the perpetrators of gender-based murders are close to the victim and that intimate

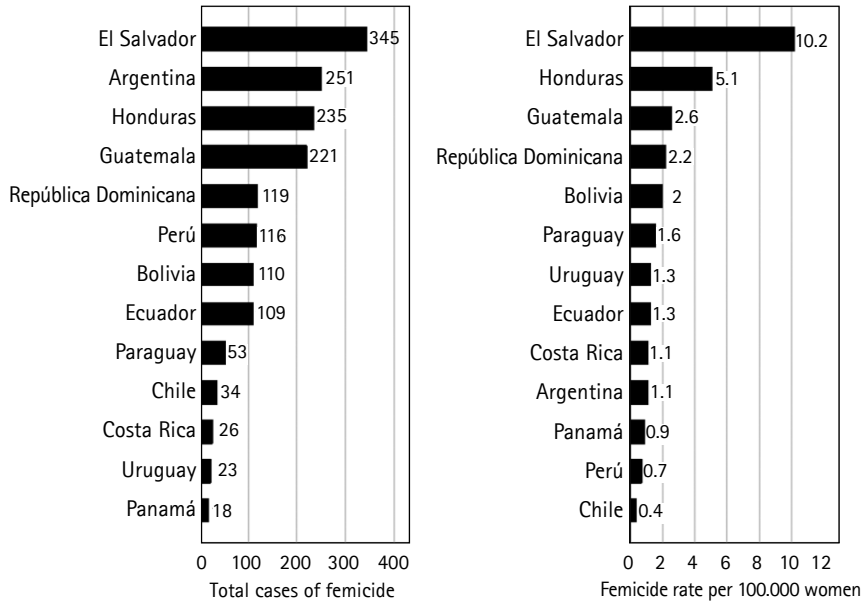
5 Introductory speech presented to the United Nations Symposium on Femicide (2012).

6 The countries are Bahamas, Belize, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Venezuela.

7 Database from the Economic Commission for Latin America and the Caribbean (ECLAC).

8 Data availability differs significantly across countries and years, resulting in missing, partial, or incomplete data for each country. For this and following statistical analysis, countries with limited or no available data were not considered. ECLAC might rectify this data in future.

Figure 1. Cases of femicide by country, 2017

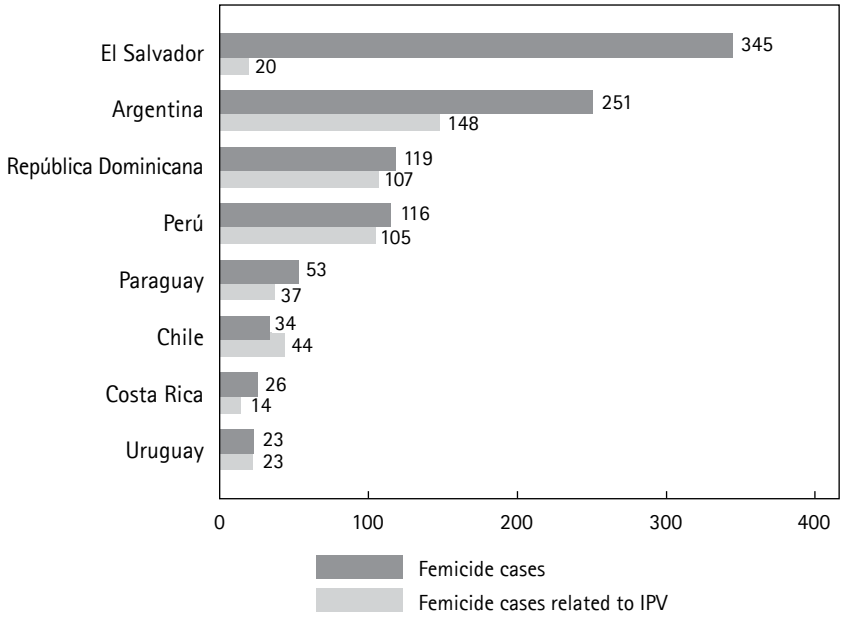


Source: Economic Commission for Latin America and the Caribbean (ECLAC) and Gender Equality Observatory for Latin America and the Caribbean.

partner violence is likely to end up in femicide. It is interesting to observe that El Salvador does not present a high rate of IPV-related femicide, despite the high number of total femicide cases. This could be due to the high rates of gang-related violence. Women in vulnerable situations such as those who live in poverty or in marginal urban areas are more likely to suffer from gang violence since they experience higher exposure to criminal activity. In this sense, gang members take advantage of females by inflicting physical and sexual violence on them, with consequences such as murder. Thus, most of the femicide cases in countries like El Salvador, Guatemala, and Honduras may be a consequence of gang violence rather than intimate partner abuse (Figure 2) (Prieto-Carrón, Thomson and Macdonald, 2007).

Meanwhile, the causes of IPV and femicide have been broadly discussed among scholars from different perspectives and academic disciplines. Thus, little consensus has been reached, since each discipline's narrowness tends to produce a single-factor theory for domestic violence, which does not help to explain

Figure 2. Total number of femicides and IPV-relate femicides by country, 2017



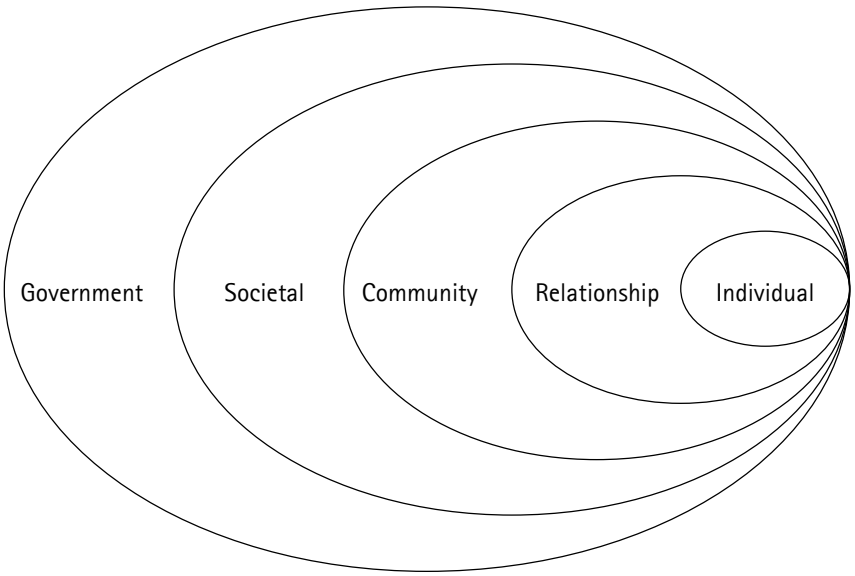
Source: Economic Commission for Latin America and the Caribbean (ECLAC) and Gender Equality Observatory for Latin America and the Caribbean.

the complexity of the issue in real life (Heise, 1998). For example, the economic perspective suggests that the causes of domestic abuse are rooted in the asymmetry of income distribution within the household and the inability of women to leave the abusive relationship because of economic constraints. At first, this could be a good predictor for IPV and femicide in Latin America; however, there exist multiple other causes surrounding the incidence of IPV and female murder beyond economic burdens.

The ecological approach first proposed by Heise (1998) is an integrative theory intended to explain the complexity of the causes surrounding intimate partner violence. The author conceptualizes violence as an inter-play of four systems or environments: personal, microsystem, exosystem, and macrosystem. Each system is composed of several factors that tend to increase the likelihood of IPV. In this study, we apply the ecological framework of intimate partner violence specifically to the Latin American reality, mainly to expose the possible causes of IPV and femicide arising from socio-cultural and institutional

factors. To do so, we add a fifth system proposed by Heise to the model, which is government action towards incidents of IPV and cases of femicide (Figure 3).

Figure 3. Ecological model



1. Individual-level factors refer to those factors that arise from each person's personal experiences, and that increase the likelihood of domestic abuse. Such factors include witnessing marital violence as a child (Ellsberg and Heise, 2005; Capaldi et al. 2012), having had an absent or alcohol-dependent father (Ellsberg and Heise, 2005), and having been physically or sexually abused as a child (Ellsberg and Heise, 2005, Knaul and Ramirez, 2005). In both cases, this leads to an ongoing situation of domestic violence from one generation to the next, since the child who is exposed to violence in his early years will tend to show violent behavior in his adult life.

2. Relationship-level factors (microsystem) refer to a family's structure. These include male dominance in the family and male control of wealth in the family. The former alludes to the patriarchal family structure that is extremely common in Latin American households, whereas the latter refers to the economic dependence that women are subject to when they

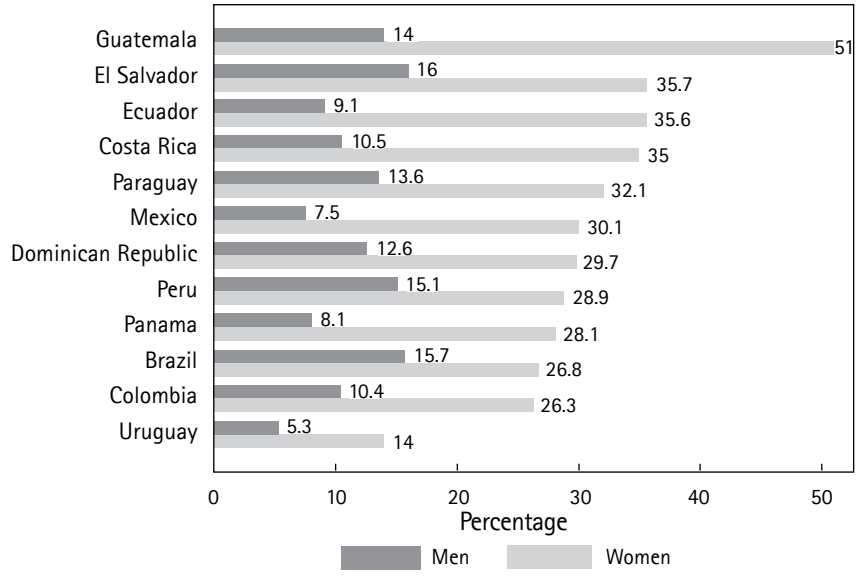
do not make an income of their own (Oduro, Deere and Catanzarite, 2015). This lack of economic autonomy represents a constraint for those women who seek to leave an abusive relationship but do not have the sufficient resources to make it on their own. Thus, the chances of a woman leaving a violent relationship are low if she has little economic autonomy.

Villareal (2007) argues that the evidence on the relationship between women's labor force participation and IPV is mixed (positive, negative, and no relation). The positive relation might occur when the male partner cannot enforce his dominance from an economic perspective, hence he uses violence as a source of domination in the relationship. If the woman is employed, from the male perspective, this could be seen as a threat to his domination, which could lead him to exert violence. Friedemann-Sánchez and Lovatón (2012) found that women's labor force participation is positively associated with IPV considering that her labor income is insufficient to allow her to negotiate with the partner or it does not represent a real threat that might lead her to leave the relationship. Gage and Thomas (2017) found that after controlling for several covariables, women's labor force participation increases IPV victimization.

On the other hand, the negative relationship between women's employment and violence is based on the idea that participation in labor market lowers violent victimization. This occurs because women's employment reduces their economic dependency on their partner, and encourages them not to tolerate violence. Villareal (2007) found that women's employment reduces the risk of violence, but that the employment decision is highly influenced by the partner (controlling behavior). Hidrobo et al. (2016) found that cash transfer programs targeting women reduce controlling behavior and IPV. The authors suggest that a possible mechanism is that the transfers might reduce labor participation and increase time spent at home with the partner, which in turn reduces the frequency of IPV.

Figure 4 shows the percentage of men and women aged 15 and above, who do not have an income of their own in Latin American countries. The proportion of women who lack their own income is higher than the proportion of men in such a situation. This dependency makes them vulnerable and dependent on others, which can have a trigger effect on men who are abusive towards their partners.

Figure 4. Percentage of population aged 15 and over without own income disaggregated by gender, 2014



Source: Economic Commission for Latin America and the Caribbean (ECLAC) and Gender Equality Observatory for Latin America and the Caribbean.

3. Community-level factors (exosystem) include all the external influences that come from the surrounding environment of the household. These include low socioeconomic status, unemployment, and delinquent peer associations (Heise, 1998). In Latin America, poverty and gang violence are highly correlated to violence towards women and femicide (Amnesty International, 2005; Prieto-Carrón, Thomson and Macdonald, 2007). Women who live in communities characterized by high levels of criminality such as organized crime, drug trafficking, and high homicide rates are more likely to become a victim of femicide (Prieto-Carrón, Thomson and Macdonald, 2007).

4. Societal-level factors (macrosystem) refer to all the cultural values and set of beliefs that shape gender roles within the family and within society. This is where Latin America's machismo culture fits as a clear example of patriarchy and oppression towards women that is acceptable from the cultural point of view. Machismo can be expressed as hypermasculine, chauvinistic, and aggressive behavior by men that reflects their belief

that men have certain rights and privileges over women (Oxtoby, 2009). For a married man, this means that his wife must fulfill his desires and that he can control her. For example, he can prevent her from seeing her friends, control contact with her family, control where she is all the time, have jealousy attacks if she speaks with another man, control the money she earns or receives, among others (Bott et al.2012). Moreover, violence becomes an instrumental tool when men want to make women obey, leading to higher rates of IPV and female murder rates.

5. Government action refers to the specific actions of authorities and the justice system to help women in vulnerable positions, such as the victims of IPV. Since the government should work as a regulator, law enforcement against IPV, and government resources used for shelters and welfare payments should increase women's rights and protection so they can either leave the relationship or so that IPV within the household stops. This particular system, never before exposed in any ecological IPV framework, is extremely important, as Gelles (1983) exposes that intimate partner violence occurs when the rewards of violent behavior outweigh the risks. In other words, violence is perpetrated when no costs related to violent behavior exist[9]. According to the author, the rewards for the use of violence should decrease by increasing the costs related to it,; for example, by imposing stricter legal and social consequences (Gelles, 1983). Thus, an effective response to IPV and femicide is crucial to prevent an ongoing situation of crime perpetration and impunity.

   Among some of the strategies to prevent IPV, the WHO (2012) recommends early intervention for at-risk families, since child abuse and maltreatment might predict future violent behavior by men. However, "efforts to include an IPV component in these programs are currently being tested" (WHO 2012). To the best of our knowledge, there is no evidence on these programs. Education, wealth, labor status should encourage economic independence and prevent women from suffering domestic violence. Jewkes (2002) argues that education is important for women because it confers social empowerment, self-confidence, and the ability to use information and resources for their own well-being. Women are more likely to justify IPV than men, and this might occur since access to education and literacy rate are higher for men. Based on a literature review, Wang (2016) argues that

9 Exchange/social Control Theory, Gelles (1983).

among several factors that influence attitude toward IPV, education is the most important. According to Tenkorang et al. (2013), women who have reached higher levels of education are less likely to report physical abuse than women with no education. Boyle et al. (2009) found that women's education reduces the risk of exposure to IPV.

2. Femicide in National Legislation

The first legislative efforts in the region to address violence against women and domestic violence incidents surged after the meetings of the Committee on the Elimination of Discrimination against Women (1992) and the Belém do Pará Convention (1994). Both brought regional agreement on the need to legislate this type of gender-based aggression by amending legal frameworks and persecuting intra-family violence. In this vein, beginning in 2007, all LAC countries have implemented either comprehensive legislation, laws against violence, or an action plan to combat violence against women[10].

Meanwhile, in the face of the prevalence of and increasing femicide rates across the region, various countries enacted specific legislation punishing the violent death of a woman at the hands of an intimate partner or a former intimate partner. The idea of having specific laws against femicide is based on the fact that femicide has different causes from homicide; therefore, it has to be typified as a crime in itself (Saccomano, 2015). Since 2007, 14 countries in the LAC region have incorporated laws against femicide in their national legislation, but there are differences between countries in terms of how the legislation approaches this crime. Some countries like Chile, Costa Rica, Guatemala, El Salvador, Mexico, Nicaragua, Peru, Ecuador, Honduras, Panama, and Bolivia, have criminalized femicide/feminicide[11] as a crime different from homicide as it is perpetrated because of gender-based causes. On the other hand, countries like Argentina, Venezuela, and Colombia have typified femicide as an aggravating circumstance for homicide, which means that the legal system

10 Economic Commission for Latin America and the Caribbean (ECLAC), 2014.

11 Radical feminist anthropologist and Congresswoman, Marcela Lagarde, translated the term into Spanish as feminicide [feminicidio]. Lagarde modified the term proposed by Russell by adding "the impunity with which these crimes are typically treated in South America," implying that the government and the judicial structures are also to blame for allowing misogyny. Throughout the LAC region, the terms femicide and feminicide are used interchangeably.

does not recognize the concept of femicide (ECLAC, 2014). In this sense, the penalties also differ from country to country, ranging from 12 years in prison (Brazil) to life imprisonment (Chile). Other examples include 15 years in prison (Peru), 20 to 40 years in jail (Colombia), and 40 to 60 years in prison, and a fine of USD 2,000 (Mexico).

Table 1. Femicide legislation in Latin America

Country	Year of law enactment	Type of offense	Sentence length
Argentina	2012	Aggravated homicide	Life imprisonment
Bolivia	2013	Femicide	30 years
Brazil	2015	Femicide	12 to 30 years
Chile	2010	Femicide; feminization of homicide aggravated by the relationship between victim and murderer.	Life imprisonment
Colombia	2015	Femicide	20 to 41 years
Costa Rica	2007	Femicide; feminization of homicide aggravated by the relationship between victim and murderer.	20-35 years, plus disqualification from holding public office positions.
Dominican Republic	2014	Femicide	30 to 40 years
Ecuador	2014	Femicide	22 to 26 years
El Salvador	2012	Femicide	20 to 35 years
Guatemala	2008	Femicide	25 to 50 years
Honduras	2013	Femicide	30 to 40 years
Mexico	2012	Femicide	40 and 60 years in prison, plus fine.
Nicaragua	2012	Femicide	15 years up to life imprisonment.
Paraguay	2016	Femicide	10 to 30 years
Panama	2013	Femicide	25 to 30 years
Peru	2013	Feminicide	15 up to 24 years
Uruguay	2017	Femicide	15 to 30 years
Venezuela	2014	Femicide	20 to 30 years

Source: UN Women (2018), Economic Commission for Latin America and the Caribbean (ECLAC).

Although the definitions and legislation related to femicide vary across LAC countries, the acknowledgment of the concept and the persecution of the crime

should be considered important progress towards the eradication of violence against women. Accordingly, an assessment of such laws is essential to testing whether or not the legislation is effective. However, only a few studies have focused on the effects of femicide legislation on femicide rates (Carrigan, 2016; Saccomano, 2015). This may be due to the constraint arising from the lack of official data on femicide cases, and the inconsistency in country-level data availability, especially in Latin America (Stöckl et al. 2013).

3. Effectiveness of Femicide Legislation

Because of the difficulty involved in assessing femicide legislation in the LAC region using data and statistical analyses, this paper proposes a different approach to address the issue. Here, we analyze how legislation and penalties from femicide shape an individual's behavior and affect his decision-making process by making crime more costly and less attractive to offenders. Through a review of the economic approach of crime and family —originally proposed by Gary Becker— and later coverage of various domestic violence models, we can obtain a theoretical approach that formalizes the possible effects of law enforcement towards femicide and how it affects criminals' decisions.

The following section is organized as follows. The first part will introduce Becker's model of crime to understand criminals' rationale and how punishment affects their criminal behavior. The second part will deal with models of the decision-making process within marriages to show how couples interact with each other in situations of domestic violence. As stated earlier, femicide is the ultimate consequence of an ongoing cycle of violence against the female partner in an abusive relationship, which makes it important to describe the dynamics of domestic violence that could eventually lead to femicide. Finally, the third section introduces our approach to the effects of femicide laws on criminal behavior to understand the aggressor's incentives and decisions behind femicide crimes and later, the effect of femicide laws on their decision of whether to commit the crime.

3.1. Literature Review of Economics of Crime and IPV Bargaining Models

Like any other economic approach to model legislation towards any crime, it is important to first consider Becker's theory of crime. In his seminal work, *Crime and Punishment: An Economic Approach*, Becker describes criminals as rational agents and states "*a person commits an offense if the expected utility to him exceeds the utility he could get by using his time and other resources at other activities*" (Becker, 1968). In this sense, criminals will choose an optimal number of offenses to maximize their utility. The number of offenses a criminal will execute is a function of the probability of conviction, the punishment if convicted, and other relevant variables, such as income related to legal and other illegal activities and his willingness to commit an illegal act. Both probabilities of conviction and punishments associated with conviction have negative effects on the number of offenses committed by criminals. Although Becker's model was not developed for any specific type of crime, it can be used to address any criminal activity. In our case, it could be the first attempt to tackle the effect that laws punishing femicide have on the aggressor's behavior.

Becker's crime model is important in explaining the rationality behind a criminal's behavior and the factors that restrict their actions. However, when addressing intimate partner violence, the model does not incorporate enough information for proper analysis since it only considers the utility function of the criminal. In situations of domestic violence, it is important to consider the victim's utility function as well, to model the interaction between both parties (Tauchen, Witte and Long, 1991). Therefore, we incorporate bargaining models of marriage, to examine how individuals make decisions in an abusive intimate relationship and how new laws against violence will shape this interaction.

In the seminal work of Gary Becker (1973, 1974) on family economics the objective of the married couple is to maximize a single utility function constrained to the household production function. In the end, the marriage will have an optimal amount of aggregate consumption. Although no violent relationship is being modeled here, the basic idea we extract from Becker's analysis is that married couples behave altruistically, which means that they will cooperate and that there exists a single utility function for the whole family.

Manser and Brown (1980) and McElroy and Horney (1981) developed bargaining models to explain intra-household decisions and interactions. Here, each spouse has their own utility function with distinct preferences and both of them will later determine a cooperative utility function for the whole family.

The difference with Becker's optimization solution is that bargaining models allow for discrepancies and conflicting preferences between partners, which implies that the optimal household's consumption must provide a minimum utility level for each spouse to stay in the relationship. In this way, there is an individual's threat point to abandon the marriage that will somehow restrict the other person's behavior and the allocation of resources within the household. However, the dictatorial version of the bargaining model suggests that, in some relationships, power is asymmetrical and this makes individuals unequal. The model identifies one individual as the dominant partner who maximizes his utility and provides only the minimum amount of utility to his partner; hence she remains in the relationship. The final optimization solution is, actually, the optimization for the dominant partner, which implies that these kinds of relationships are not altruistic.

Although the dictatorial bargaining model captures several characteristics of violent relationships like distinct preferences, asymmetric treatment, and dominance, Tauchen et al (1991) argues that the dictatorial bargaining model does not take into account the volatility and instability of violent intimate partner relationships. This means that the dominant partner in the dictatorial bargaining model does not necessarily assure the other person a minimum level of utility, hence she decides to stay in the relationship. Tauchen et al. develop a domestic violence non-cooperative model using a game theory approach in her paper *Domestic Violence: A non-random affair*. The model is based on family and crime economics, since intimate partner violence is a crime committed within the household and under the spouse's decisions and interactions. Thus, the author allows the incorporation into the model of sanctions against abusers and analyzes its effect on the partner's behavior and decisions within the household.

In Tauchen's model, the male is the dominant partner in the relationship and has expressive and instrumental motives for inflicting violence. Expressive violence refers to the type of violence that gives pleasure to the aggressor, whereas instrumental violence is a form of dominance and it is inflicted to

control and impose certain rules of behavior to his partner. The rules include the use of financial funds, contact with friends and family, and the provision of certain services within the home or directly to the male. If the rules are not obeyed, the male will credibly threaten his partner to increase the violence he inflicts on her. His utility is an increasing function of violence and the level of services, and a decreasing function of the sanctions imposed on him for his behavior. On the other hand, the woman's utility function also depends on the level of violence, services, and sanctions, but an uncertainty factor is incorporated in her utility function. This is set as a random variable that captures the male's uncertainty towards the female's preferences and behavior. Her utility is a decreasing function of services and violence, and an increasing function of both sanctions and uncertainty.

However, Tauchen's assumption of the volatile nature of abusive relationships suggests that this equilibrium is far from being stable. In this sense, there is no guarantee that the male will act pacifically if the female obeys his rules. This means that, even if she obeys, the male partner could still use violence with expressive motives and still perpetrate domestic violence. Thus, the only way of ensuring non-violent behavior from the male is either: i) to raise the sanctions for domestic abuse; or ii) to improve the probabilities of her leaving the relationship.

Higher sanctions decrease the male's utility and increase the costs related to violence —because of the monetary fine imposed on him— or days in prison, which reduces his productivity due to absence at work. According to Becker's economics of crime, the male acts like a rational individual who makes decisions through a cost-benefit analysis. If higher sanctions increase his costs, then the expected utility from committing the crime will be lower than the expected utility of not committing the crime, decreasing the level of offenses and abuse directed to his partner. In this sense, the laws of eradication of violence against women in the Latin American region could have a positive effect on the well-being of women who are victims of intimate partner violence since they would change the incentives behind the abuser's behavior.

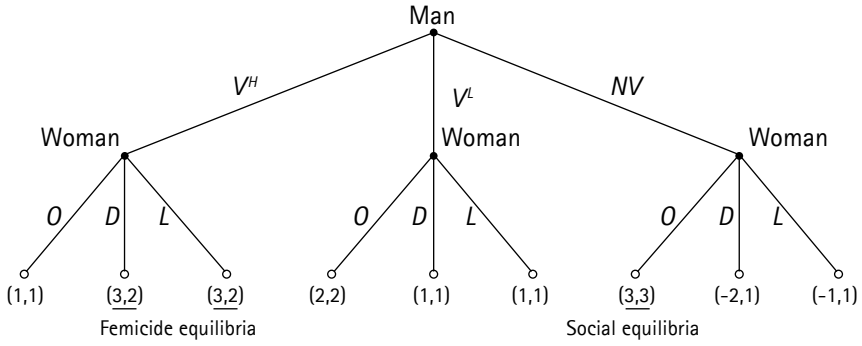
On the other hand, to improve women's opportunities outside the marriage, we need to take into account that, in Tauchen's model, the probability of the woman leaving the relationship is extremely low as it follows the assumption

that the woman does not participate in the labor market. This income constraint precludes the possibility of her being able to survive outside the relationship and implies that she depends economically on her partner. As noted in the ecological framework developed in the previous section, this is a reality in many countries of the LAC region, the occupational status of women is negatively correlated with the prevalence of intimate partner violence (Yodanis, 2004). Many empirical studies have demonstrated that empowering women through economic income might reduce domestic abuse (Oduro, Deere, and Catanzarite, 2015).

In Latin America, particular interest has been paid to the effect of conditional cash transfers on IPV (Bobonis, González-Brenes, and Castro, 2013; Hidrobo and Fernand, 2013). All of them agree that a higher income represents more autonomy for women and that it significantly decreases violence within the household. Opportunities outside the relationship can also be improved by providing services for battered women. Farmer and Tiefenthaler (1997) proposed a model that showed the effects of outside alternatives including services such as shelters and support lines on women's utility and level of violence experienced. The model concludes that the higher the external services, the lower the violence, therefore the higher the probability of her leaving the marriage.

Before starting a relationship, the woman does not know whether her partner is violent or not, but when she is already in the relationship, she finds out precisely his level of violence. Hence, we propose a game with static, complete information to understand the motivation behind femicide resulting from a relationship with asymmetrical power favoring the man. He has three options: (i) to inflict a high level of violence (V^H), (ii) to inflict a low level of violence (V^L), and (ii) not to inflict violence (NV). The woman has three choices: (i) to cooperate or obey for fear of punishment (O), (ii) not to cooperate or to disobey (D), or (iii) leave the relationship (L). The action chosen by each player is at least as good, according to his/her preferences, as every other available action. The following is the game representation using an extensive form and a payoff matrix.

For men, their utility is an increasing function of the level of violence inflicted on his partner, hence, the payoffs related to performing acts of violence against the woman are positive. If the woman obeys (O), he prefers not to inflict violence getting a payoff of 3, while if the woman chooses to disobey (D) or to



		Woman		
		O	*D*	*L*
Man	V^H	1,1	3,2	3,2
	V^L	2,2	1,1	1,1
	NV	3,3	-2,1	-1,1

leave the relationship (L), the man choose to inflict a high level of violence (V^H), which yields him a payoff of 3. On the other hand, from the woman's perspective, if her partner is highly violent (V^H), she prefers to disobey (D) or to leave the relationship (L), which yields her a payoff of 2, while if the man is not violent (NV), she chooses to obey (O) getting a payoff of 3. The solution for this game has three equilibria (V^H, D) (V^H, L) (NV, O). The first two equilibria (V^H, D) (V^H, L) describe action pairs of a violent man V^H with a woman who chooses to disobeys (D) or to leave the relationship (L), we called these *Femicide equilibria* considering that women are killed by a current or former violent partner. The third equilibria we called the *Social equilibria* (NV, O), which describes an action of a non-violent man and a cooperative (obedient) woman who is not killed by her partner.

3.2. Femicide legislations under rationality assumptions

The previous section showed that the bargaining equilibrium for households involved in abusive relationships of obeying (female) and non-violence (male) is not sustainable over time. If the probabilities of her leaving the marriage or relationship are low due to the lack of external services and opportunities, we can conclude intuitively that the violence can increase continuously and even

end up in the man killing the woman. Even if the woman could leave the relationship because she has enough personal income to be able to do so, there is no guarantee that the man would stop harassing her. This is reflected in the high femicide rates committed by a victim's former partner (see Figure 1).

Thus, the traditional bargaining models that model IPV and the effects of law enforcement are not be appropriate to address the crime of femicide, since the incentives to commit the crime are different in both cases. Here, we propose a simple approach that captures the effect of government laws against femicide on the decision of abusive men to perpetrate such crimes by making several assumptions of men's incentives and behavior in this specific setting. We also include government intervention, as its actions determine, influence, and shape the criminal's decision-making process.

The basic assumption in this section is that both men and women behave rationally, which means they will maximize the utility of the relationship and minimize the costs of their actions. Also, if a man is so violent that femicide is a plausible outcome, there is no limit to the level of violence inflicted on his partner. Additionally, the woman's strategy to leave the marriage could not prevent her from getting killed by his partner, since there is a high probability that he will keep harassing her after she abandons him.

Since most of femicide cases occur after the victim has already left the relationship, an interesting insight arising is that outside opportunities (like family support and economic aid) might not help the victim, as he will eventually find and kill her. If this holds, the man will no longer incorporate her utility function into his utility (since he no longer cares about providing her a minimum utility level) and his optimization process will not be subject to her utility's threshold[12]. In such a scenario, the only optimization constraint that could restricts the man's decisions and incentives to commit murder is the government's action

12 Famer and Tiefenthaler (1997) propose an IPV model in which the male's utility is a function of self-esteem, consumption, marital capital, and the female's utility threshold. This threshold represents the minimum utility level that she needs to obtain from the marriage. Otherwise, she will leave. Thus, the male's maximization is:

$$\max_{V,cm} U^M\left(s(v), c^m, \eta\right) \text{ subject to } \bar{U}^w = U^w$$

This will later provide an equilibrium for the level of violence and consumption of the marriage. Note that the constrained optimization process for the man limits the level of violence he can inflict on her.

towards femicide. In this vein, law enforcement against femicide should work as a constraint to his decision to commit the crime. Thus, our approach could be seen as an interaction between the man and the government.

Let the man's utility function from committing femicide be:

$$U^M = U^M\left(v, s, o, f, u\right)$$

where v is the level of violence towards his partner, s are the sanctions from committing femicide, o is the obedience he receives from his partner, f is a dummy variable for whether he commits femicide or not and u are other external factors, like belonging to a gang or violence within the community[13]. His utility is a decreasing function of sanctions and an increasing function of violence, femicide and obedience of the female.

$$U^m{}_v = \frac{\partial U^m}{\partial v} > 0$$

$$U^m{}_o = \frac{\partial U^m}{\partial o} > 0$$

$$U^m{}_f = \frac{\partial U^m}{\partial f} > 0$$

$$U^m{}_s = \frac{\partial U^m}{\partial s} < 0$$

The male maximization utility from committing the crime is constrained by the government's actions: (i) apprehension, and (ii) conviction (punishing the criminal for his crime). Considering that the male has no certainty of whether he would be apprehended or not (and convicted or not if apprehended), he assigns probabilities to the various possible outcomes from perpetrating the crime.

Thus, his expected utility can be expressed as:

$$\max EU^m\left(v, s, o, f, u\right) = p_a EU^{m,a} + \left(1 - p^a\right) EU^{m,na} + \left(p_c\big|_a\right) EU^{m,c} + \left(1 - p_c\big|_a\right) EU^{m,nc}$$

where p_a is the male's subjective probability of apprehension and $\left(p_c\big|_a\right)$ is the conditional probability of conviction once he has been apprehended.

13 This is based on the ecological approach developed in the previous section, where community-level factors like belonging to a certain gang increase the probability of femicide by enforcing machismo ideals.

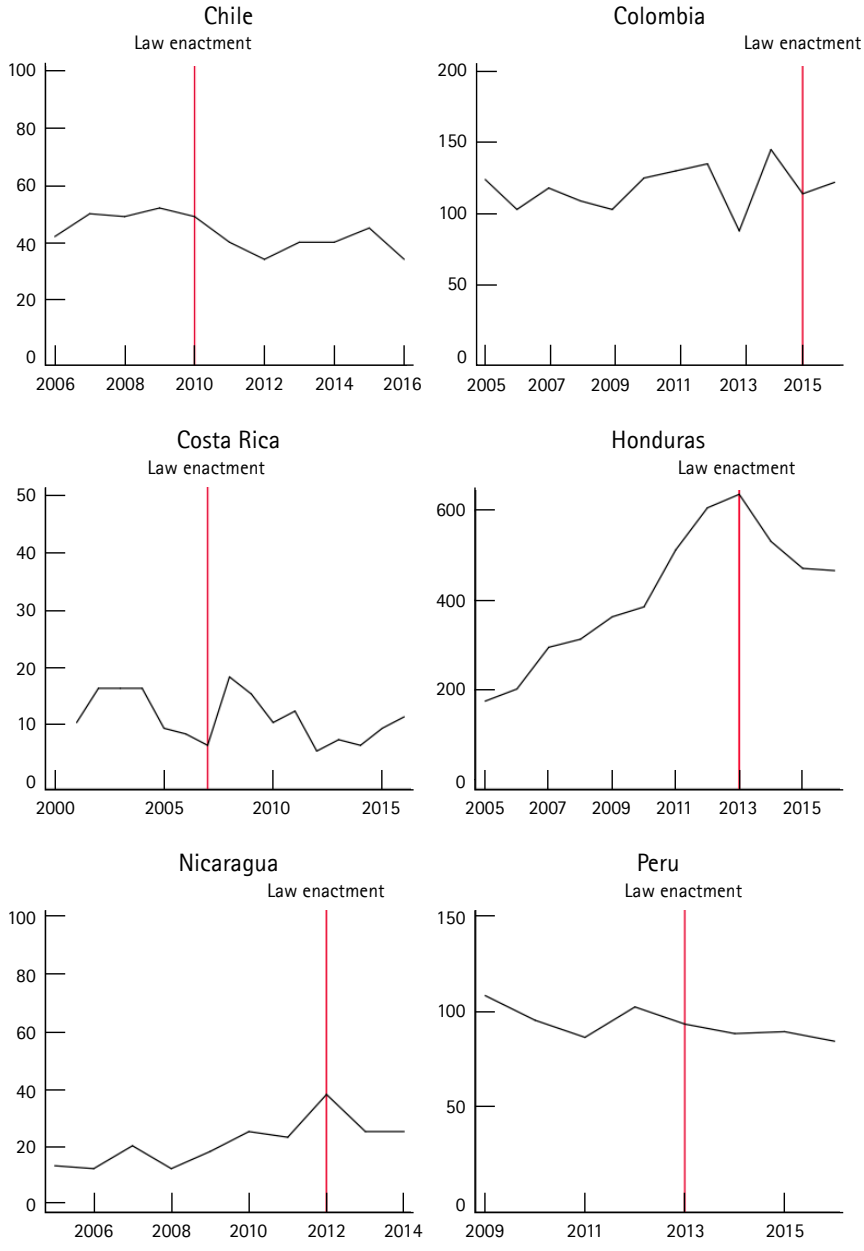
$(1-p_a)$ is the probability of not being apprehended and $(1-p_c|_a)$ is the probability of not being convicted even if he got apprehended.

Following Becker's approach, the male's decision-making process should be affected by raising the probabilities of being apprehended and convicted. Both have a negative effect on the decision of committing the crime, since they raise the costs related to perpetrating the harm. If both probabilities are high enough, the male's incentives to commit murder could be reversed and therefore, no crime would take place.

The enactment of laws, such as the laws against femicide in LAC, should be enough to raise the probabilities of apprehension and punishment. However, the effectiveness of the law is an important factor when it comes to shaping criminal behaviors. If there were no trust in the effective action of the government, the male's subjective probabilities assigned to each outcome would be very low, even though laws have already been enacted. The subjective probabilities are, in fact, a function from past experiences; the individual will take past information to forecast future outcomes if he perpetrates the crime. If previous events of domestic violence towards his partner went unpunished, or if he has the notion that impunity is common in femicide cases, then he will consider this poor government intervention in situations of IPV and femicide.

The impact of the legislation on femicide rates is difficult to address since femicide legislation in Latin America was introduced in the last decade, and data on femicide is annual and only available for a limited number of countries. With such limited data, there is not much variation before and after the legislation, which presents a very low statistical power. In other words, if we implement an econometric model, we will not detect an impact when in fact, the impact exists. However, by looking at the trend of raw data across years and countries, we can make a first attempt to interpret the effectiveness of femicide laws on the number of crimes committed. Figure 5 shows the historical data of IPV-related femicide crimes for countries with available data and the year that the law was enacted. In some cases, like in Honduras and Nicaragua, the law appears to have a negative effect on the number of crimes committed, which is highlighted by the fact that femicide rates were increasing before the enactment of the law. However, the effectiveness of the

Figure 5. The effect of femicide legislation in Latin American countries



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

law seems to be ambiguous in cases like Chile and Peru, whereas in Costa Rica the enactment of the law is followed by a considerable increase in the number of crimes perpetrated.

4. Discussion

Legislation against IPV and femicide in Latin America represents a major advance towards woman's human rights and eradication of violence against women. In Latin America, efforts to penalize femicide seem of major importance given the high overall femicide rates and femicide crimes caused by IPV. It makes femicide a visible crime that is officially recognized and punishable, and it guarantees women's access to justice.

The relative novelty of these legislations and the lack of official and available data make it difficult to measure the impact of these initiatives on femicide crimes. From an economic point of view, and based on microeconomic and game theory that formalizes individuals' rational incentives and behaviors, it seems that such laws could have a positive effect on reducing femicide crimes by increasing the costs related to crime perpetration and therefore, affecting the aggressor's incentives to commit murder.

However, the concern arises when governments are incapable of implement legislation effectively. The lack of response and action from the government creates a perception of impunity among the population, which not only intensifies the number of crimes committed by facilitating further murders, but also sends a message to society that violence against women is both acceptable and inevitable (UN, 2012). In this sense, if patterns of violent behavior are normalized by the inaction of authorities, there is no way to modify the aggressor's behavior through the law, making it useless.

In this scope, the reality in Latin America is not encouraging. For example, in Guatemala, among all the cases of femicide reported in 2014, only 2% of them were successfully prosecuted (Musalo, Pellegrin, and Roberts, 2014). According to Joseph (2012), media reported that between 2008 and 2010, there were 1.110 reported cases of femicide in Honduras, but only 211 made it to court and 4.2% of these resulted in an actual conviction. Mexico's conviction rate, in turn, is of only 1.6% for those crimes that make it to court.

Another point of discussion surrounding femicide is the possibility of the murderers' nonrational behavior. The approach proposed in this paper allowed us to analyze how laws, punishment, and apprehension might shape criminals' decision-making under rational assumptions. However, media often shows femicide cases as crimes of passion that might have been driven by emotions or nonrational choices. Walters (2015) focuses on criminal decision-making by incorporating heuristics and cognitive biases earlier studied by Daniel Kahneman and Amos Tversky and proposes that criminal behavior has rational and nonrational components. Nonrationality arises when hedonistic emotions (i.e., anger, frustration, excitement, or pleasure) are unmodulated by the individual and interfere with optimal decision-making by calling for immediate action and gratification. This leads to a type of crime called the reactive thinking style characterized by its spontaneous, reckless, and "hot-blooded" nature. Meanwhile, moral emotions (i.e., guilt, shame, remorse or empathy) coming from the moral belief system work as regulators in preventing hedonistic emotions to take over and, therefore, neutralizing an individual's impulsive criminal behavior. However, when criminals decide to ignore moral emotions by externalizing blame for their actions or permitting themselves to commit crime out of privilege, then the lack of moral emotions leads to purely rational behavior and to the second type of crime called proactive thinking style.

Femicide might be the outcome of both reactive and proactive crimes; that is, it might have both rational and nonrational components. Walters (2015) emphasizes that just because criminal decision-making might be driven by nonrational forces, it does not mean that criminals are absolved of responsibility. It calls for a second line of government action in crime prevention, which is making it more difficult for individuals to neutralize moral emotions like guilt or shame. In both reactive and proactive criminal thinking, raising moral costs will make crime less attractive or desirable, and will lead to a decision based on rational components that will incorporate moral feelings such as empathy or remorse. In this sense, governments should align with gender and social movements to increase campaigns against gender violence and female murders. This should penetrate basic individual formation, such as early education, by teaching young boys the moral unacceptability of violence against women and gender-based crimes.

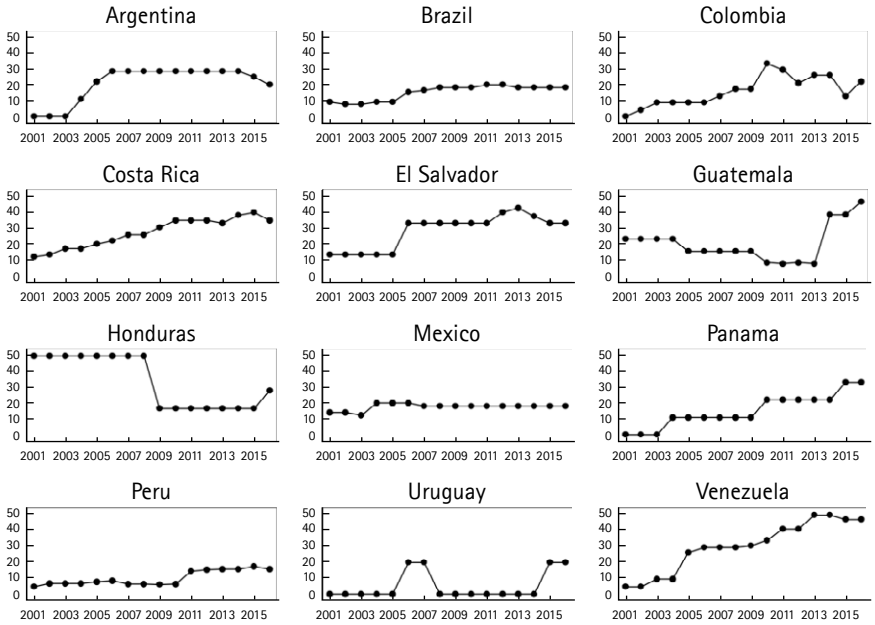
5. Conclusion

Violence against women and femicide needs to be addressed from a multidisciplinary approach. In this paper, we evaluate the effectiveness of current legislation against femicide from a theoretical perspective by analyzing both the aggressor's and the government's behavior towards this gender-based crime. Although severity in terms of years of imprisonment, if convicted, might increase the costs associated with the crime for rational abusers, state inaction and inefficiency to prosecute femicide cases represent an obstacle for shaping criminal behavior.

We suggest that, for femicide legislation to have a real effect on a criminal's behavior, governments must commit to eradicating impunity related not only to femicide but to the overall spectrum of violence against women. Only by doing so, will a criminal's perception of the probability of arrest and punishment make him desist from perpetrating femicide. This could be done by training investigators, police, officers, and forensic experts properly (Joseph, 2012); increasing campaigns and early education in the pervasion of violence against women; and also, by balancing male and female representation in courts (see Figure 6 for data overview of female representation in the justice system in LA).

The government should also pay attention to moral costs associated to violence against women and femicide. We have seen that, from a nonrational perspective, moral costs help to prevent the commission of crimes arising from hedonistic emotions such as anger or jealousy that might be present in abusive relationships. Here, efforts made by the state should work as preventive actions by educating society -especially men- about the pernicious effects of gender-based violence and femicide. By raising overall awareness, moral costs associated with the commission of such crimes would be more obvious for criminals and might disrupt their hedonistic impulses and thus, change their decision of whether to commit the crime.

Figure 6. Percentage of women judges in the highest court or Supreme Court



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Acknowledgment

We would like to thank Professor Miguel Acosta-Andino for his guidance on game theory.

References

1. Amnesty International. (2005). Justice fails in Ciudad Juarez and the city of Chihuahua. (2005). Retrieved April, 2018, from https://bit.ly/3fdi1r8.

2. Alvazzi del Frate, A. (2011). When the victim is a woman. In *Global Burden of Armed Violence 2011*.(pp. 113-144).

3. Boyle, M. H., Georgiades, K., Cullen, J., & Racine, Y. (2009). Community influences on intimate partner violence in India: Women's educa-

tion, attitudes towards mistreatment and standards of living. *Social science & medicine, 69*(5), 691-697. https://doi.org/10.1016/j.socscimed.2009.06.039

4. Becker, G. S. (1968). Crime and Punishment: An Economic Approach. In *The Economics Dimension of Crime*. : (pp. 13-68). London: Palgrave Macmillan.

5. Becker, G. S. (1973). A theory of marriage: Part I. *Journal of Political Economy, 81*(4): 813-846. https://doi.org/10.1086/260084

6. Becker, G. S. (1974). A theory of marriage: Part II. *Journal of Political Economy, 82*(2): 11-26. https://doi.org/10.1086/260287

7. Bobonis, G., González-Brenes M., & Castro R. (2013). Public Transfers and domestic violence: The roles of private information and spousal control. *American Economic Journal: Economic Policy, 5*(1): 179-205. DOI: 10.1257/pol.5.1.179

8. Bott, S., Guedes A., Goodwin M., and Mendoza J. (2012). Violence Against Women in Latin America and the Caribbean: A comparative analysis of population-based data from 12 countries. Washington D.C.: Pan American Health Organization. https://www.paho.org/hq/dmdocuments/2014/Violence1.24-WEB-25-febrero-2014.pdf

9. Breiding, M. J., Basile K. C., Smith S. G., Black M. C., & Mahendra R. (2015). Intimate Partner Violence Surveillance Uniform Definitions and Recommended Data Elements Version 2.0. Atlanta: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

10. Capaldi, D. M., Knoble N, Wu S. J., & Kim Hyoun K. (2012). A systematic Review of Risk Factors for Intimate Partner Violence. *Partner Abuse, 3*(2): 231-280. DOI: 10.1891/1946-6560.3.2.231

11. Carrigan, M. (2016). *Femicide Legislation: Lessons from Latin America.* [Doctoral Thesis, University of Guelph]. https://bit.ly/3sUOk30. .

12. Economic Commission for Latin America and the Caribbean. (2014). *Confronting violence against women in Latin America and the Caribbean* [annual Report 2013-2014] United Nations Publications. https://bit.ly/3vjJr56.

13. Ellsberg, M., & Heise, L. (2005). Researching Violence Against Women: A Practical Guide for Researchers and Activists. Washington D.C.: World Health Organization (WHO) and Program for Appropriate Technology in Health (PATH).

14. Farmer, A., & Tiefenthaler, J. (1997). An Economic Analysis of Domestic Violence. *Review of Social Economy, 55*(3): 337-358. https://doi.org/10.1080/00346769700000004

15. Friedemann-Sánchez, G., & Lovatón, R. (2012). Intimate partner violence in Colombia: Who is at risk?. *Social Forces, 9*1(2), 663-688. https://doi.org/10.1093/sf/sos131

16. Gage, A. J., & Thomas, N. J. (2017). Women's work, gender roles, and intimate partner violence in Nigeria. *Archives of sexual behavior, 46*(7), 1923-1938. https://doi.org/10.1007/s10508-017-1023-4

17. Garcia-Moreno, C., & Heise, L. (2002). Violence by Intimate Partners. In World Report on Violence and Health. Geneva: WHO Press: 87-121.

18. Gelles, R. J. (1983). An exchange/social control theory. In The dark side of families: Current family violence research. Beverly Hills: Sage: 151-165.

19. Heise, L. (1998). Violence Against Women: An integrated, ecological framework. *Violence Against Women, 4* (3): 262-290.

20. Hidrobo, M., & Fernald, L. (2013). Cash transfers and domestic violence. *Journal of Health Economics, 32*(1): 304-319. https://doi.org/10.1016/j.jhealeco.2012.11.002

21. Hidrobo, M., Peterman, A., & Heise, L. (2016). The effect of cash, vouchers and food transfers on intimate partner violence: evidence

from a randomized *experim*ent in Northern Ecuador. *American Economic Journal: Applied Economics, 8*(3): 284-303.

22. Jewkes, R. (2002). Intimate partner violence: causes and prevention. *The lancet, 359*(9315), 1423-1429. https://doi.org/10.1016/S0140-6736(02)08357-5

23. Joseph, J. (2017. Victims of Femicide in Latin America: Legal and Criminal Justice Responses. *Temida, 20*(1): 3-21. https://doi.org/10.2298/TEM1701003J

24. Knaul, F., and Ramírez M. A. (2005) Family Violence and Child Abuse in Latin America and the Caribbean: The Cases of Colombia and Mexico. Inter-American Development Bank.

25. Larraín, S., & Rodríguez, T. (1993). Los orígenes y el control de la violencia doméstica en contra de la mujer. *Género, mujer y salud en las Américas, 541*.

26. Manser, M., & Brown, M. (1980). Marriage and Household Decision-Making: A Bargaining Analysis. *International Economic Review, 21*(1): 31-44. https://doi.org/10.2307/2526238

27. McElroy, M. B., & Horney, M. J. (1981). Nash Bargained Household Decisions: Towards a Generalization of the Theory of Demand. *International Economic Review, 22*(2): 333-349. https://doi.org/10.2307/2526280

28. Musalo, K., Pellegrin E., & Roberts S. (2010). Crimes Without Punishment: Violence Against Women in Guatemala. Hasting Women's L.J, 21, 161. https://bit.ly/3hf0cur.

29. Nowak, M. (2012). Femicide: A global problem. Small Survey Research Notes, 14: 1-4.

30. Oduro, A. D., Deere C. D., & Catanzarite Z. B. (2015). Women's Wealth and Intimate Partner Violence: Insights from Ecuador and Ghana. *Feminist Economics, 21*(2): 1-29. https://doi.org/10.1080/13545701.2014.997774

31. Oxtoby, C. (2009). Taking a Cultural Perspective on Intimate Partner Violence. [Doctoral Thesis, Marquette University]. Retrieved from https://bit.ly/3dQ00Qr.

32. Palma-Solis, M., Vives-Cases C., & Álvarez-Dardet, C. (2008). Gender Progress and government expenditure as determinants of femicide. *Annals of Epidemiology, 18*(4): 322-329. https://doi.org/10.1016/j.annepidem.2007.11.007

33. Prieto-Carrón, M., Thomson M., Macdonald M. (2007). No more killings! Women respond to femicides in Central America. Gender and Development, 15(1): 25-40. DOI: 10.1080/13552070601178849

34. Program for Appropriate Technology in Health (PATH). (2008). Strengthening Understanding of Femicide using research to galvanize action and accountability. Washington D.C.

35. Saccomano, C. (2015). The Causes of Femicide in Latin America [Master's thesis, Institut Barcelona Estudis Internacionals]. https://bit.ly/3nlwsgx

36. Stöckl, H., Devries K., Rotstein A., Abrahams N., Campbell J., Watts C., & Garcia-Moreno C. (2013). The global prevalence of intimate partner homicide: a systematic review. *The Lancet, 382*(9895): 859-865. https://doi.org/10.1016/S0140-6736(13)61030-2

37. Tauchen, H., Witte A. D., & Long S. K. (1991). Domestic violence: a non-random affair. *International Economic Review*, 491-511.

38. Tenkorang, E. Y., Owusu, A. Y., Yeboah, E. H., & Bannerman, R. (2013). Factors influencing domestic and marital violence against women in Ghana. *Journal of Family Violence, 28*(8), 771-781. https://doi.org/10.1007/s10896-013-9543-8

39. United Nations. (2012). Report of the Special Rapporteur on violence against women, its causes and consequences, Rashida Manjoo. Retrieved March, 2018, from https://bit.ly/3twL668.

40. UN Women. (2018). *Análisis de Legislación sobre Femicidio/Feminicidio en América Latina y el Caribe e insumos para una Ley Modelo*. https://bit.ly/3uxPm6J.

41. Villarreal, A. (2007). Women's employment status, coercive control, and intimate partner violence in Mexico. *Journal of Marriage and Family*, *69* (2), 418-434. https://doi.org/10.1111/j.1741-3737.2007.00374.x

42. Walters, G. (2015). The Decisions to Commit Crime: Rational or Nonrational?. *Criminology, Criminal Justice Law & Society, 16* (3): 1-18. https://bit.ly/3gCbJng

43. Wang, L. (2016). Factors influencing attitude toward intimate partner violence. *Aggression and Violent Behavior*, 29, 72-78. https://doi.org/10.1016/j.avb.2016.06.005

44. Waters, H., Hyder A., Rajkotia Y., Basu S., and Rehwikel J. A. (2004). The economic dimensions of interpersonal violence. Geneva: World Health Organization Department of Injuries and Violence Prevention.

45. World Health Organization (WHO). (2005). Addressing Violence Against Women and Achieving the Millennium Development Goals. Geneva: WHO Press.

46. World Health Organization (WHO). (2012). Understanding and addressing violence against women. Retrieved March, 2018, from https://bit.ly/2Q70qJ0.

47. World Health Organization (WHO). (2013). Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: WHO Press.

48. Yodanis, C. L. (2004). Gender inequality, violence against women and fear: A cross-national test of the feminist theory of violence against women. *Journal of interpersonal violence, 19*(6): 655-675. https://doi.org/10.1177/0886260504263868