# Drug Policy in Mexico, 2006-2012. Analysis and Results of a Prohibitionist Policy

Laura H. Atuesta Becerra



MONITOR







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## LIST OF ABBREVIATIONS

ADF	FALTA DEFINICIÓN	LI
ASF	Auditoría Superior de la Federación (Federal Audit Office)	
APA	American Psychiatric Association	LI
BNDD	Bureau of Narcotics and Dangerous Drugs, predecessor to	L
	the current Drug Enforcement Administration (DEA)	0
CEFP	Centro de Estudios de las Finanzas Públicas	0
	(Center for the Study of Public Finances)	
CENADIC	Centro Nacional para la Prevención y el Control de las	P
	Adicciones (National Center for Addiction Prevention and	Ρ
	Control)	Ρ
CEPET	Centro de Periodismo y Ética Pública (Center for Journal-	P
	ism and Public Ethics)	
CFPP	Código Federal de Procedimientos Penales (Federal Penal	P
	Procedures Code)	
CICAD	Comisión Interamericana para el Control del Abuso de	P.
	Drogas (Inter-American Drug Abuse Control Commission)	
CIDE	Centro de Investigación y Docencia Económicas, A.C.	Ρ
	(Center for Research and Teaching in Economics)	Ρ
CIJ	Centro de Integración Juvenil (Juvenile Integration Center)	
CNDH	Comisión Nacional de los Derechos Humanos	P
	(National Commission of Human Rights)	
COE	Centro de Operación Estratégica (Strategic Operation Center)	P
CONACYT	Consejo Nacional de Ciencia y Tecnología	
	(National Council of Science and Technology)	S
CONADIC	Consejo Nacional contra las Adicciones	
	(National Council against Addictions)	S
CONAPO	Consejo Nacional de Población	
	(National Population Council)	S
CPF	Código Penal Federal (Federal Penal Code)	S
СТМ	Consejo Tutelar para Menores	S
	(Guardianship Council for Minors)	-
CUPIHD	Colectivo por una Política Integral hacia las Drogas, A.C.	S
0.05	(Collective for an Integrated Drug Policy)	
DOF	Diario Oficial de la Federación	
	(Official Journal of the Federation)	S
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, fourth edition	S
GCVA	Gross Census Value Added	3
	Instituto Ciudadano de Estudios sobre Inseguridad	S
ICESI	(Citizen's Institute for Studies on Security Challenges)	5
INCSR	International Narcotics Control Strategy Report	S
INEGI	Instituto Nacional de Estadística y Geografía	S
INEGI	(National Institute of Statistics and Geography)	
INM	Instituto Nacional de Migración	U
	(National Institute of Migration)	-
INPRFM	Instituto Nacional de Psiquiatría "Ramón de la Fuente Mu-	U
	ñiz" (National Institute of Psychiatry)	U
ENA	Encuesta Nacional de Adicciones	2
	(National Addictions Survey)	U
EU	Economic Units	W
LGS	Ley General de Salud (General Health Law)	w

LFDO	Ley Federal contra la Delincuencia Organizada (Federal
	Law against Organized Crime)
LNM	Ley de Narcomenudeo ("Petty Drug Dealing Law")
LSN	Ley de Seguridad Nacional (National Security Act)
OAS	Organization of American States
OHCHR	Office of the United Nations High Commissioner for Hu-
	man Rights
PAHO	Pan American Health Organization
PF	Policía Federal (Federal Police)
PFP	Policía Federal Preventiva (Federal Preventive Police)
PGJ	Procuraduría General de Justicia
	(Office of the State Attorney General)
PGR	Procuraduría General de la República
	(Office of the Attorney General of the Republic)
PJF	Poder Judicial de la Federación
	(Judicial Branch of the Federation)
PND	Plan Nacional de Desarrollo (National Development Plan)
PNCD	Programa Nacional para el Control de Drogas (National
	Drug Control Program)
PNSP	Programa Nacional de Seguridad Pública (National Public
	Security Program)
PSPJ	Programa Sectorial de Procuración de Justicia
	(Sectorial Program for the Procurement of Justice)
SED	Sistema de Evaluación del Desempeño (Evaluation Sys-
	tem of Performance)
SEDENA	Secretaría de la Defensa Nacional
	(Secretariat of National Defense)
SEGOB	Secretaría de Gobernación (Secretariat of the Interior)
SEMAR	Secretaría de Marina (Naval Secretariat)
SHCP	Secretaría de Hacienda y Crédito Público
	(Secretariat of Finance and Public Credit)
SIECD	Sistema de Información Epidemiológica del Consumo de
	Drogas (System of Epidemiological Information on Drug
	Consumption)
SISVEA	Sistema de Vigilancia Epidemiológica de las Adicciones
CNICD	(Epidemiological Surveillance System for Addictions)
SNSP	Sistema Nacional de Seguridad Pública
	(National Public Security System)
SRID	Sistema de Reporte de Información en Drogas
SSA	(Drug Information Reporting System) Secretaría de Salud (Secretariat of Health)
SSP	Secretaría de Seguridad Pública
33F	(Secretariat of Public Security)
UMAN	Unidad Mixta de Atención al Narcomenudeo
	(Mixed Attention Unit for Petty Drug Dealing)
UN	United Nations
UNGASS	United Nations General Assembly Special Session (on
5110135	drugs)
UNODC	United Nations Office on Drugs and Crime
WDR	World Drug Report
WHO	World Health Organization

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# PART I. JUSTIFICATION

At the Latin American Commission on Drugs and Democracy held in Brazil in February 2009, the ex-presidents of Mexico, Colombia, and Brazil (Ernesto Zedillo, César Gaviria, and Fernando Henrique Cardoso, respectively) proposed a reform to their drug policies, positing the decriminalization of marijuana and the regulation of substances such as cocaine and synthetic drugs. The Commission was created as a response to the inefficiency of the "War on Drugs" in recognition of both the prohibitionist strategy's failure and of the need to open the debate to alternative policies (Cardoso, Gaviria, and Zedillo, 2009).

Three years later (in April 2012), during the Sixth Summit of the Americas in Cartagena, Colombia, the presidents of many Latin American countries agreed to analyze the outcomes of the current drug policies in their regions. The summit opened the possibility for exploring new approaches to strengthen public policies on the matter and thus obtain better results. The chiefs of government who attended this Sixth Summit entrusted the Organization of American States (OAS) with drafting an impartial report to evaluate the drug policies in the region (see Santos, 2012).

In June 2013, Secretary General of the OAS José Miguel Insulza presented a Drug Report on the Fifty-Third Regular Session of the *Comisión Interamericana para el Control del Abuso de Drogas* (CICAD; Inter-American Drug Abuse Control Commission), Special Session, in Antigua, Guatemala (General Secretariat of the OAS, 2013). The Report summarized "the before and after" of issues relating to drug production, trafficking, commerce, and consumption in Latin America. According to the Report, drugs are a hemispheric phenomenon that have turned into a health problem, given their increasing consumption, as well as into a security problem, given the criminal violence associated with drug production and trafficking. The first part of the report concluded that the drug problem should be addressed differently depending on how it affects each country.

Four different scenarios were drafted to analyze possible future drug-policy outcomes in the Americas. Among these, three scenarios envisioned cooperation, with countries jointly undergoing legal modifications to reach an agreement, whereas the fourth scenario foresaw a rupture in which countries would fail to reach a consensus on the problem. The scenarios of cooperation were based on the institutional strengthening of state entities, a rethinking of legal regulations, and a search for solutions—incorporating community and civil society opinions. In contrast, the rupture scenario posited that drug-producing and trafficking countries would have to assume an unfairly high cost to stop the region's drug dealing and would thus decide to accept the production and trafficking of drugs in their territories.

The most relevant topics discussed at the Guatemala meeting were the following: the problem of drugs as a multicause phenomenon that engenders political, economic, social, and environmental costs; the diverse realities of member states; the illicit activities relating to drug production, distribution, and trafficking that have resisted current policies; the fall in drug demand in a multi-sectorial and multi-disciplinary manner; institutional strengthening and the need to bolster public policies to curb drug consumption, especially with policies relating to public health systems; the need for drug policies to include a human rights perspective; the need to reduce the organized crime and violence associated with drug trafficking; the intensification of drug trafficking through arms smuggling; the negative repercussions of money laundering (associated with drug trafficking) on rule of law, governance, and the economy; and the need for a new approach to the drug problem under a framework of shared responsibility (General Assembly of the OAS, 2013).

In addition, the United Nations (UN) approved a resolution presented by six Latin American countries (Guatemala, Colombia, Costa Rica, Belize, Honduras, and Mexico) to hold a Special Session of the General Assembly (UNGASS; United Nations General Assembly Special Session) in 2016 with the objective of evaluating alternative policies on the problem of illicit drugs (Espinosa, 2014). The growing importance of drug-related issues in political discussions—both on a regional and global level—opens the door for Latin American countries to take control and design comprehensive regional policies that respond to their needs. Mexico has been involved in the international debate on drug policies since 1993, when it promoted an initiative to discuss worldwide drug policies that was eventually presented at the UNGASS in 1998. In a press release that was sent to the General Secretary of the UN, Mexico insisted upon the need to emphasize the mitigation of drug demand, as this is the root cause of drug production and trafficking. On that occasion, Mexico proposed a multilateral policy in opposition to the United States' unilateral certification policy (Jelsma, 2003).

Subsequently, in the final weeks of a six-year term marked by a "frontal fight" against drug trafficking, now ex-president Felipe Calderón, together with the presidents of Colombia and Guatemala, proposed several drug-policy reforms, first, through press releases sent to the UN in October 2012 ("Joint Declaration") and, second, through the Declaration of Cadiz during the Ibero-American Summit of November 2012. These two declarations called for the study and analysis of alternative policies along with the reevaluation of the goals and limitations of then-in force policies (Jelsma, 2003).

At the national level, the Calderón administration prioritized a frontal fight against organized crime, increasing the deployment of federal security forces-namely the federal police and armed forces-to solve the nation's public security problems (this strategy is referred to as the "War on Drugs" throughout this report). In pursuit of this strategy, the government reformed its legal framework against organized crime, particularly in terms of drug trafficking and distribution offenses, modifying the Código Penal Federal (CPF; Federal Criminal Code) and the Ley Federal contra la Delincuencia Organizada (LFDO; Federal Law against Organized Crime), among others. Further, it approved the Ley de Narcomenudeo (LNM; "Petty Drug Dealing Law"), which modified several federal laws to broaden the participation of different levels of government (federal, state, and local) in the war against drugs, especially promoting those branches responsible for the enforcement and administration of justice at the state level. For the first time, the LNM established alternative solutions to criminal sentences against people who consumed or were addicted to drugs. After approving the law, the Mexican Congress modified the original initiative to emphasize a public health perspective and push the authorities to design a specific program to prevent consumption and treat people with drug addictions.

In this context, this report aims to compile information on Mexico's drug policies during Calderón's term (2006–2012) and draw policy recommendations for the incoming government. This report's sections provide a review of available statistics, changes in the legal framework, and existing governmental programs. It also aims to provide an objective understanding of the current situation, including its existing deficiencies, lessons learned, successful policies and failures, and any opportunities for improvement. In collaboration with several researchers from the *Centro de Investigación y Docencia Económicas, A.C.* (CIDE; Center for Research and Teaching in Economics), this report collects information from several working papers that are available on the CIDE Drug Policy Program's website (www.politicadedrogas.org).

The report is divided into five sections, this being the first. The second section describes the drug policies of Calderón's term, analyzes the objectives established by the Plan Nacional de Desarrollo (PND; National Development Plan; 2007-2012), and evaluates the action strategies described in national and sectorial programs. The third section describes Mexico's drug situation by discussing available statistics; as well as the main trends in consumption, production, and trafficking; and the effects of the current drug policy on budgeting, politics, economics, and human rights. The fourth section describes how the Mexican legislature has adapted itself to fight drug-related crimes, how these offenses are processed, and how states have enacted legislative changes to take on their new faculties in said area. Finally, the last section concludes by emphasizing the lack of coherence in the Calderón administration's drug policy and providing recommendations for the new government, based on previous experiences.

This report assumes that there are no official sources that assess whether drug policy, drug trafficking, organized crime, and alleged homicides related to organized crime are consequences of the same phenomenon, strategy, or government policy. Government sources, as well as the press, tend to make no distinction between the "war against organized crime" (Escalante, 2009), the "war against crime/drug trafficking" (Calderón, 2006)<sup>1</sup>, and the "battle for security," all of which are conceived as policies to fight drug trafficking. There is still no clear distinction between policies to fight drug trafficking and policies for public health, since the strategy is generally based on Joint Operations in states with greater homicide and violence rates<sup>2</sup>. While Escalante (2011) analyzes "organized crime" related to national violence, which, in turn, corresponds to alleged homicides related to organized crime, he also argues that these homicides should not be exclusively considered a consequence of organized crime, but also a result of a crisis in local order<sup>3</sup>. Although drug trafficking is only one manifestation of organized crime, the government has attributed it the greatest weight, at least in its discourse and in the design of its policies. Given the impossibility of proving that the Calderón administration's security strategy was specifically and exclusively designed to fight drug trafficking and drug commerce, and considering the importance the government has attributed to these matters, this report denotes these concepts as part of the current drug policy, using violence and homicide as proxies for the policy's evaluation.

<sup>&</sup>lt;sup>1</sup>At the start of his tenure in December 2006, ex-president Felipe Calderón defined his "fight against organized crime" strategy, which was launched through an initial federal joint operation in Michoacán. He justified the term on the grounds that homicides related to drug trafficking in the region had passed the 500 mark in the preceding year. Throughout his six-year presidency, his administration made allusions to this term when calling for national unity, especially after the divisions stemming from the 2006 elections (Madrazo, 2013).

<sup>&</sup>lt;sup>2</sup>The states where joint operations were conducted are Baja California, Chihuahua, Durango, Guerrero, Michoacán, Nuevo Leon, Sinaloa, and Tamaulipas, where the homicide rates in 2008–2009 reached a historic peak of 45 homicides for each 100,000 inhabitants.

<sup>&</sup>lt;sup>3</sup> Escalante mentions that the old system of political intermediation in Mexico was based on the selective non-fulfillment of the law, and that the resulting violence was imperceptible because of the way the law functioned. However, when Calderón looked to impose the law by force, the local status quo was disrupted, unleashing a wave of violence (Escalante, 2011).

# PART II. The Felipe Calderón administration's drug policy: general outline4

This section identifies and analyzes the federal- and stategovernment programs on drug policy that were designed during the Calderón administration. These programs address three topics: (i) security and justice; (ii) health; and (iii) education and social development. The strategies' effectiveness is assessed using the federal government's measurement indicators, which are periodically evaluated by the Secretary of Revenue and Public Credit's Evaluation and Performance System (Sistema de Evaluación del Desempeño; SED)

While conducting these assessments and following the recommendations issued by the *Auditoría Superior de la Federación* (ASF; Federal Audit Office), there were no advances in the *Programa Nacional para el Control de Drogas* (PNCD; National Drug Control Program) through 2010, as public security policies (embodied in the PND) as well as the *Programa Sectorial de Procuración de Justicia's* (PSPJ; Sectorial Program for the Procurement of Justice) actions regarding the fight against drug trafficking, organized crime, and connected offenses were not executed with clear and pragmatic indicators in mind (Guerrero Alcántara, 2014). In most of the cases, the strategies were not assigned any indicators, and when they were, official measurements said little about the effectiveness of the strategy's results.

The main problems found in this analysis are the deficiencies in the programs' documentation and in the analytical and empirical exercises for their implementation, as well as the lack of systematic comprehension of the programs. The three reasons precluding a critical and purposeful evaluation of the programs are the following: (i) there is no direct relationship between the implemented strategies and the established objectives; (ii) there were no periodic measurements to allow for modification when positive results were lacking; and (iii) in most cases, government strategies and objectives were not matched with specific actions for implementation. Given that the plans and programs generally lacked strategies, there are no specific actions to be evaluated. In cases when an action plan was designed, only one report was issued describing the conducted activities, which does not suffice to evaluate the success or failure of the reported objectives.

Regarding the first topic, security, the programs to fight drug trafficking focus on the supply side, following strategy 8.1 of the National Development Plan: "Recover the State's strength and protect security in society through the efficient and frontal confrontation of drug trafficking and other expressions of organized crime." Although the federal government designed direct and indirect strategies to fight drug trafficking, their plans and programs do not include specific actions or indicators for their evaluation. For example, the Secretary of Defense stipulated that one of the actions to carry out its strategy was to "diminish the illegal crop area by 70 percent," but no parameters were included to measure decreases in supply, available quantity, or any increases in the crop's price.

Security efforts can also be observed in the strengthening of law enforcement and in the administration of justice, as well as in the human resources and materials allocated to public safety as a way to fight drug trafficking. Calderón's justice and security strategy aimed to cover two specific fronts of the drug phenomenon: on the one hand, to prevent offenses by strengthening the cultural tendency to report illicit drug activity in society; and on the other hand, to persecute offenses by strengthening the institutions and human resources responsible for persecuting presumed criminals.

These two fronts have considerably increased the number of persons who have been detained, processed, and sentenced for drug-related offenses; nevertheless, the majority of these offenses are related to possession, not to the illicit activities tied to organized crime. Program indicators that measure the number of individuals who have been detained, processed,

<sup>&</sup>lt;sup>4</sup> The main source of information for this section of the report was Guerrero Alcántara (2014).

and sentenced for drug-related crimes are not helpful in evaluating the implementation of PND strategy 8.1, as they do not include measurements of the extent to which their implemented actions have cut back on this phenomenon.

In the second field—health, consumption, and illicit-substance abuse—the Calderón administration's strategies are categorized into addiction prevention and attention. However, non-problematic consumers are not taken into account—although they should have been the targets of the government's prevention strategies. Additionally, one specific goal in terms of curbing consumption is reflected in a single indicator, "the prevalence of illegal drug consumption among first-time users ages 12 to 17, according to sex, in a specific period." As noted in section IIIB of this report, this indicator is problematic because it does not describe the current level or frequency of consumption after the first time.

Two drug policy objectives regarding public health are included in the PND's "Equality of Opportunities" axis: the first objective is to "reduce inequalities in health services through interventions targeting marginal communities and vulnerable groups;" and the second one focuses on "guaranteeing that the Secretary of Health contribute to human development and overcoming poverty." The designated actions to carry out these strategies are established in the National Health Program and, in most cases, are not specific enough to fulfill the strategy or to allow for a useful evaluation. For example, one of the designated actions aims to "encourage policies to cut demand and prevent addiction;" nevertheless, the policies and how they will curb addictions are not specified, and follow-up indicators are not included either.

In general, there is a lack of correlation between the proposed objectives and actions, together with a shortage in measurement instruments. Both the ASF and the ADF presented negative conclusions on the evaluation of the strategies' designated actions and implementation efforts. The ASF concluded that the "Prevention and Attention to Addictions" program, for which the Secretary of Health did include indicators, failed to define medium-term goals on the epidemiological surveillance of transmittable and non-transmittable illnesses, addictions, and mortality. Moreover, the program did not define an annual reference to measure advances in epidemiological surveillance and control. With respect to the indicators for measuring the coverage of addiction programs, only geographical coverage was included, but indicators on economic and social impact, the quality and equality of health efforts, and illness prevention were lacking. The ADF concluded that the "Prevention and Attention to Addictions" program did not include follow-ups on the implemented activities or on the use of allocated resources.

In the fields of social and educational development, policies are more focused on drug consumption, rather than prevention. The program's main objective is to strengthen security treating drug consumers as criminals rather than as individuals with illnesses that require treatment. Social programs to bolster education, job opportunities, and social solidarity as mechanisms for addiction prevention were also absent.

With respect to their measurement, Calderón's social and educational development programs did outline specific actions and indicators that allow for at least a partial evaluation of the programs' implementation. Most of these indicators are registered in the National Survey on Insecurity, conducted by the Instituto Ciudadano de Estudios sobre Inseguridad (IC-ESI; Citizen's Institute for Studies on Insecurity) and the Instituto Nacional de Estadística y Geografía (INEGI; National Institute of Statistics and Geography). However, the results are not positive: the survey shows a growing trend in perceptions of insecurity from 2007 through 2010, with a growth rate of approximately 5 percent (ICESI, 2010, p. 86). Medium and long-term strategies to prevent the problematic consumption of illicit drugs are still lacking-rather, the objectives merely seek to prevent the association of consumption with illicit activities.

In sum, Mexican drug policy lacks a comprehensive program to address the drug problem on different fronts. The programs and activities from security policies related to illicit substances have failed to include the necessary indicators for a useful results evaluation. Thus, the strategies cannot be modified when the results fall short. With the exception of security programs, most objectives, strategies, and actions are not coherently linked, and the implemented actions are not directly tied to the phenomenon that they aim to address. As a consequence, the results cannot be measured using the defined objectives.

To generate conclusions and recommendations based on the results of the Calderón administration's drug policies, the following sections of this report analyze how government actions affected the political, economic, budgetary, and human rights spheres and how legislation has been adapted to make way for Calderón's drug policy.

# PART III. A review of Mexico's illicit drug problem

### IIIA. Descripton of the existing data

To evaluate Mexico's drug policy with empirical data, the Monitor of CIDE's Drug Policy Program (PPD) gathers information on drug policy form the public databases of several government entities, international organisms, non-governmental organizations, and independent entities. Overall, these databases include the following information:

- A. The organizational and budgetary structures of the government entities addressing the drug problem.
- B. Data on Mexico's illicit drug market, including supply, demand, prices, and seizures.
- C. The health implications of drug addictions in youth and adults as well as the allocated budget for prevention and treatment.
- D. General data on the results of the war on drugs, including crime rates and other relevant indicators on the enforcement of justice and public security programs.
- E. Data on drug-related criminal processes: conviction sentences with respect to the number of detainees, *arraigos<sup>5</sup>*, criminal investigations, and other indicators on the enforcement of justice at the federal level<sup>6</sup>.

#### Data Regarding the Organizational and Budgetary Structures of States Addressing the Drug Problem

The Monitor's main databases were found in the *Secretaría de Gobernación* (SEGOB; Secretariat of the Interior), the Executive Secretariat of the *Sistema Nacional de Seguridad Pública* (SNSP; National Public Security System), the General Directorate of Planning, and the *Procuraduría General de la República* (PGR; Office of the Attorney General of the Republic). The data includes the programmable expenses for public security as well as public sector expenses for order, security, and justice between 2001 and 2011. In addition, the Monitor accounts for the federal budgets allocated to the *Secretaría de la Defensa Nacional* (SEDENA; Secretariat of National Defense), the *Secretaría de Marina* (SEMAR; Naval Secretariat), and the *Programa Nacional de Seguridad Pública* (PNSP; National Public Security Program). Regarding data on organizational structures, our sources include information concerning the human resources and professionalization of members of the armed forces, the PGR, and other public security entities. The data was mainly used for the calculation of the public expenses invested in drug policy, as described in section IIID below<sup>7</sup>.

#### Data on Mexico's Illicit Drug Market

The Monitor's main statistical sources come from the United Nations Office on Drugs and Crime (UNODC), the World Drug Reports (WDRs), and the International Narcotics Control Strategy Report (INCSR). The data includes information regarding seizures of various drugs (cannabis, cannabis resin, cocaine, opium, heroin, and morphine), the prices of narcotics in the North American and Mexican markets, the consumption of drugs among youth and adult populations, the prevalence of drug cultivation and trafficking between countries, and expert opinions on trends in the use of drugs. Based on this information, the trends in the supply, trafficking, and consumption of illicit drugs in Mexico are analyzed in section IIIC of this report<sup>8</sup>.

#### Data on the Effects of Drugs on Public Health

Additionally, the WDRs and UNODC report information on illnesses and deaths related to drug addictions as well as on the main drugs abused by individuals in treatment. At the national level, the *Encuesta Nacional de Adicciones* (ENA; National Addictions Survey), published from 1988 to 2011, is used to evaluate and measure the consumption of drugs (both legal and illegal). In fact, this survey is one of the main sources for the design of public health policies to attend and prevent drug consumption. Other surveys that provide infor-

<sup>&</sup>lt;sup>5</sup> Technically, "arraigo" is the equivalent of house arrest. According to Mexican law, the arraigo may not necessarily take place in the home of the detainee. In practice, most—if not all—arraigos take place in undisclosed locations of the authorities' choosing, such as security houses and even military compounds.

<sup>&</sup>lt;sup>6</sup> These databases may be consulted at www.politicadedrogas.org

<sup>&</sup>lt;sup>7</sup> The complete analysis of public expenses on drug policy was developed by Purón-Cid (2014).

<sup>&</sup>lt;sup>8</sup>A more exhaustive analysis of the sale, trafficking, and seizure of illicit drugs in Mexico was conducted by Núñez and Garduño (2014).

mation concerning the consumption of and addiction to illicit drugs in Mexico include the First Survey of Illegal Drug Users in Mexico City—conducted by the *Colectivo por una Politica Integral hacia las Drogas, A.C.* (CUPIHD; Collective for an Integrated Drug Policy) in 2011. A comparative analysis of these sources, which we use to analyze the consumption and addiction trends regarding illicit drugs in Mexico, is described in the section below<sup>9</sup>.

#### Data on the Results of the "War on Drugs" During Felipe Calderón's Six-Year Term

This section includes general data on crime and violence, such as crime rates at the federal and local levels, highway robbery, a typology of crimes, population perceptions on the evolution of these crimes, and other public security indicators (crime incidence, social rehabilitation in penitentiaries, and highway security). The main sources are the SEGOB, the *Secretaría de Seguridad Pública* (SSP; Secretariat of Public Security), and information published by the INEGI.

Information on the outcomes of several military operations against organized crime in Mexico is also included. The data was taken from the Statistical Annex of the Fifth Government Report, which includes the main outcomes of SEMAR and SEDENA's fight against drug trafficking (Presidencia de la República, 2011a). Indicators on national defense, the fight against drug trafficking, sectorial national defense programs, law enforcement, public security, and the protection and surveillance of national territory—including data on the implemented operations and covered territory between 1985 and 2011—were gathered for the Monitor's purposes. In addition, information from the PGR and the National Planning Center was also used to analyze human rights violations during the "war on drugs" as well as the efficiency of this strategy in electoral, political, and economic fields<sup>10</sup>.

#### Data Related to the Penal Processes for Illicit Drugs

The information in this section was taken from the PGR, SSP, INEGI, government reports, and the Institutional System of Statistical Information. As for criminal aspects, the databases include information on the criminal process, number of convicted detainees, criminal investigations and accused individuals, the prosecuted population in jail—both in local and federal jurisdictions—and the presumed number of delinquents and individuals sentenced for each type of crime.

Further, this section includes information on the laws concerning money laundering, the individuals accused of laundering money, and on requests for extradition. The professor-researchers who collaborated in the elaboration of section IV of the report also used information on the changes in legislation as seen in the *Diario Oficial de la Federación* (DOF; Official Journal of the Federation) and the Chamber of Deputies (exposition of motives and opinions)<sup>11</sup>.

### IIIB. Relevant trends in consumption<sup>12</sup>

As explained in the previous section, our main source of information to evaluate and measure the consumption of illicit drugs in Mexico was the National Addictions Survey (ENA). Up to 2002, the surveys were conducted exclusively in urban areas every five years (1988, 1992, 1998, and 2002). Since 2002, rural data has also been included, but the survey is no longer published every five years: the last two surveys were published in 2008 and 2011.

This section uses the ENAs published in 2008 (Medina-Mora et al., 2008) and 2011 (Villatoro Velázquez et al., 2012) to analyze relevant trends in illicit drug consumption. The ENAs' results are later compared to an independent survey that CUPIHD conducted in Mexico City in 2011 (First Survey of Illegal Drug Users in Mexico City). The section concludes with an analysis of consumption trends, considering the methodological and theoretical limitations of our data.

Besides the ENAs, other sources concerning the consumption of illicit drugs in Mexico can be consulted as well. The *Individual Report on Drug Consumption* published by the *Sistema de Reporte de Información en Drogas* (SRID; Drug Information Reporting System) includes information on drug consumers (of licit and illicit drugs) in Mexico City. Furthermore, the Sistema de Vigilancia Epidemiológica de las Adicciones (SISVEA; the Epidemiological Surveillance System for Addictions) gathers information on the consumption of drugs in all 32 states using data from several institutions (treatment centers, *Consejos Tutelares para Menores* (CTM; Minors Guardianship Councils), and emergency rooms in hospitals, among others). *The Statis*-

<sup>&</sup>lt;sup>9</sup> A deeper analysis comparing ENA 2008 and ENA 2011 to the CUPIHD survey was developed by Labate and Ruiz Flores López (2015).

<sup>&</sup>lt;sup>10</sup> The CIDE working papers published by Anaya (2014), Garduño (2014), and Ponce (2014) explore these topics in depth.

<sup>&</sup>lt;sup>11</sup> For an in-depth analysis, consult the following CIDE working papers: Madrazo (2014), Pérez-Correa and Silva (2014), Pérez-Correa and Meneses (2014), and Guerrero Alcántara (2014).

<sup>&</sup>lt;sup>12</sup> The main source of information for this section is Labate and Ruiz Flores López (2015).

tical Report on the Consumption of Drugs in Patients Registered for First-Time Treatment in Juvenile Integration Centers by Sex, State, and Attention Unit, published by the Sistema de Información Epidemiológica del Consumo de Drogas (SIECD; System of Epidemiological Information on Drug Consumption) and the Centros de Integración Juvenil (CIJ; Juvenile Integration Centers), gathers data on the characteristics of consumers registered for first-time treatment in 2010 and presents its data by state. Meanwhile, the Students Survey of Mexico City 2009 measures the consumption of illegal drugs in classrooms. The Research Report on the Risk Factors of the Consumption of Drugs in Youths Living in High-Risk Cities, the Case of Ciudad Juarez, published by the CIJ, gathers information on the consumption of illicit drugs among students in Ciudad Juárez. Finally, the National Psychiatric Epidemiological Survey of Mexico, published by the Instituto Nacional de Psiauiatría "Ramón de la Fuente Muñiz" (INPRFM; National Institute of Psychiatry), the Consejo Nacional de Ciencia y Tecnología (CONACYT; National Council of Science and Technology), the Pan American Health Organization (PAHO), and Pfizer Mexico, describes the prevalence of psychiatric disorders among users of illicit drugs.

The ENAs are published by the Consejo Nacional contra las Adicciones (CONADIC; National Council against Addictions) and the Sub-Secretariat of Prevention and Health Promotion through the Centro Nacional para la Prevención y el Control de las Adicciones (CENADIC: National Center for the Prevention and Control of Addictions). The surveys are carried out in households, interviewing on average 1.4 and 1.29 individuals per household in the 2008 and 2011 ENAs, respectively. The results and the way in which the two ENAs (2008 and 2011) were conducted show a clear relationship with the Calderón administration's drug policies. The 2008 ENA describes government policies on illegal-substance supply reduction as well as the creation of a network of primary centers for addiction treatment. Meanwhile, the 2011 ENA focuses on promoting health, well-being, and citizen security, with an emphasis on the government's success in cutting the drug supply.

Listed below are the terms of consumption according to the ENA's glossary definitions:

A. Consumption in the last 12 months: consumption of any substance in the last 12 months; also known as last year prevalence.

- B. Consumption in the last 30 days: consumption of any substance in the last 30 days; also known as last month prevalence or current use.
- C. Accumulated Incidence: the global prevalence of consumption in an individual or the prevalence at any moment in life.
- D. Drug exposure index: the opportunity for an individual to consume any drug after being offered the drug as a gift or purchase.
- E. Experimental consumption: when a person reports having used one or more substances from one to five times.
- F. Regular consumption: when a person reports having used one or more substances on more than five occasions.
- G. Drug dependence: when a person reports having had three or more symptoms of dependency associated with consumption.
- H. Use given the opportunity: individuals who consume drugs and who report having been previously offered any substance.
- I. Dependency given abuse: individuals who report having used one or more substances on more than five occasions and who also show drug dependency.

The terms "abuse," "habitual use," and "problematic use" appear in the body of the survey but are not defined in the glossary. The survey refers to consumption using the terms "experimental," "habitual," "problematic," "abuse," and "dependency" and vaguely mentions that addiction is an "illness that can be treated." The term "accumulated incidence," defined above, is used as one of the main indicators to draw conclusions about consumption. The disadvantages of using this variable, both for its implications and for its definition per se, will be discussed later. Likewise, this section discusses the problems of the ENA's definitions of abuse and dependency.

According to the 2008 ENA, 1.6 percent of those interviewed had consumed drugs in the last year (ages 12–65), and 62 percent of these individuals declared to have done so during the last month. In terms of gender, men are more exposed to the consumption of illicit drugs, and as a consequence, there is greater consumption among men than women. With respect to differences among generations, individuals born between 1972 and 1983 are more exposed to illicit drugs than other generations.

From 2002 to 2008<sup>13</sup>, according to the 2011 ENA, the consumption of marijuana grew more than the consumption of other illicit drugs, increasing from 0.6 percent to 1 percent between 2002 and 2008, while the increase in the consumption of cocaine went from 0.3 percent to 0.4 percent during the same time period. The increase in the consumption of marijuana was minimal from 2008 to 2011 (rising by only 0.2 percentage points) for the overall population, but it was significant for the male population, which showed an increase in consumption from 1.7 percent in 2008 to 2.2 percent in 2011. With respect to other drugs, cocaine consumption rising by 0.5 percentage points in the same period while the consumption of other drugs increased by only 0.2 percentage points. See graph 1 below.



### GRAPH 1. DRUG CONSUMPTION TRENDS: TOTAL POPULATION AGES 12 TO 65

Source: National Addictions Survey 2011 (Villatoro Velázquez et al., 2012). The graph approximates the data provided in the 2011 ENA's Cuadro 1. The data on crack is included in the cocaine figures.

The ENA categorizes the population according to three age groups: (i) adolescents (12 to 17 years); (ii) young adults (18 to 25 years); and (iii) adults (older than 25 years). The young adult group was the most exposed to drugs, followed by adults, and then adolescents. However, adolescents registered the greatest proportion of experimental users, while young adults and adults registered equally lower proportions. Dependency among regular users was greatest in adolescents, followed by young adults. This same trend is true of progress towards dependency (this last figure was at 35 percent for adolescents, 24.6 percent for young adults, and 14.5 percent for adults). As mentioned below, the comparison between the 2008 and 2011 ENAs is problematic because the sample sizes are different; nevertheless, some regional trends are apparent. In general, the greatest level of consumption in the population is found in the northern region, with a consumption level of 1.1 percent and an increase of 57.1 percent since 2008. The central and southern regions registered consumption levels of 0.6 percent and 0.5 percent (with an increase of 20 percent and 0 percent), respectively, since 2008. Across all the regions, marijuana is the most consumed drug followed by cocaine. The greatest indexes of dependency are observed in the northern region, with an increase from 0.9 percent to 1.1 percent, from 2008 to 2011.

<sup>&</sup>lt;sup>13</sup> It is important to mention **that** there are several problems with comparing the 2002 and 2008 ENAs, since the former was only conducted in some cities across a number of states, whereas the 2008 survey covered both rural and urban areas throughout the country.

With respect to general perceptions of drug addiction<sup>14</sup>, more than half of those surveyed (58.5 percent) believe drug addicts are ill. Furthermore, 50.2 percent of those surveyed agree that they should be relocated to facilities that are far away from the city. Only 19.1 percent see them as delinquents and even fewer, 2.1 percent, believe jail is a good re-habilitation option.

Despite their reach and coverage, the ENAs have some methodological limitations. First, the surveys were conducted in homes, excluding public places, prisons, and the street population, which limits the representativeness of the study. Second, the sample sizes in 2008 and 2011 were different, and as such, the two surveys are not comparable<sup>15</sup>. Third, because the prevalence of drug consumption is so small, crossing data or drawing conclusions based on such a low number of consumers is complicated, and the significance of the results may be lost (Hope, 2012). These limitations may generate errors in the results, which are not always known to those who cite the findings.

With respect to the categorization of the uses of drugs, there are some additional problems. First, the title "National Addiction Survey" is problematic, since it presents a political and ideological bias and a predisposition to consider all drug use a form of addiction. Second, the terms "regular use," "abuse," "dependency," and "addiction," among others, are not well defined. The definitions are vague and do not correspond to any scientific criteria or known bibliography<sup>16</sup>.

The criterion of having consumed drugs once in a lifetime is not representative of a real health problem and is only relevant to adolescents. Further, the surveys have other limitations such as the assumptions about the relationship between prevention and consumption among adolescents. With respect to the first point, the survey argues that the lack of preventative activities increases the probability of drug consumption, taking the efficiency of government prevention policies for granted. Nevertheless, this relationship cannot be determined by the sole comparison between the consumption of those who were exposed to prevention programs and those who were not. Evaluating the efficiency of government programs would warrant a more sophisticated analysis of the population exposed to each specific program. With respect to the second point, adolescents were surveyed in their homes after being granted parental permission to participate, which could easily increase their chances of lying in the survey.

Regardless, the results of the National Youth Survey and of the Report of the Juvenile Integration Center in Ciudad Juárez are different from the ENAs' results. Some authors have argued that the ENAs underestimate illegal drug consumption in youth (Orquiz, 2012; Arellano, 2009), but this affirmation cannot be proven since the surveys are not comparable (even the different ENA editions are incomparable).

The results of the *First Survey of Illegal Drug Users in Mexico City* by CUPIHD (Zamudio & Castillo, 2012) were also analyzed. The main advantage of this survey is that it includes innovative data that was not analyzed in other surveys, providing additional information on the drug consumption phenomenon. For example, the survey addresses the relationships between users, the authorities, and health centers, providing evidence of the relationship between consumption and drug policies. The survey also analyzes the consumer's point of view regarding consumption (through questions that measure the intensity of consumption) as well as the stigmatization that consumers suffer (among society, their family members, and the authorities, for instance). Although the survey provides interesting results, it is not representative of the population at large and has selection bias problems.

<sup>&</sup>lt;sup>14</sup> 'Drug addicts' is the term used by Mexican Law, which we also use in this report. According to the World Health Organization (WHO), "Drug addiction is the physical and mental state caused by the interaction between a live organism and a drug, in which alterations in the behavior and an impulse to ingest the drug in a periodic manner are present in order to avoid the discomfort experienced from deprivation" (WHO, 1964). Herein, a drug is defined as "any chemical or natural compound that changes or alters a system or any non-infectious or non-food substance that, through chemical processes, produces changes in the physical and/or mental states" (Bureau of Narcotics and Dangerous Drugs [BNDD], 1971, p. 3, as cited in Berruecos Villalobos, 2010).

<sup>&</sup>lt;sup>15</sup> According to Hope (2012), it is possible to deduce that the sample in 2011 covered a population of 83 million individuals ages 12 to 65, while the 2008 ENA represented a total of 75 million Mexicans. This increase of 10.6 percent between the two surveys implied an annual increase of 3.4 percent, which is improbable. To compare the absolute number of drug users, the population data of 2008 requires adjustment, which is not possible with the updated data of the *Consejo Nacional de Población* (CONAPO; National Population Council).

<sup>&</sup>lt;sup>16</sup> We compared the definitions in ENA with the criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) of the American Psychiatric Association (APA, 1994) for the definition of "dependence" and could not establish an absolute correspondence between the two criteria. In addition, it was found that (i) "dependence" is interchangeable with "dependence given abuse;" that (ii) "consumption," "use" and "use without dependence" resemble "experimentation," or "experimentation given the opportunity;" that (iii) "use given the opportunity" is the same as "experimentation given the opportunity;" and that (iv) the term "abuse" is interchangeable with "abuse given opportunity."

The survey's selection bias stems from its failure to provide an explanation regarding the use of a proportional or systematic method to recruit subjects. In other words, with no information on the profiles of those surveyed, or on the way individuals were selected, there is no way to determine how representative the sample is. With respect to the definitions of different consumption levels, the survey contains a specific definition to measure the intensity of consumption as "low," "high," or "extreme," based on the users' perceptions of their consumption. However, as with the ENA, the terms use, abuse, and dependency are not clearly defined.

According to CUPIHD's survey, the greatest reported drug consumption is of marijuana (followed by cocaine), and the majority of consumers report having consumed alcohol before using illegal drugs, which is consistent with the ENA's results. One of the most interesting aspects of CUPIHD's survey is the evaluation of "damages or risks," including offenses committed by consumers. The risks include having unprotected sex (63.9 percent), driving automobiles (57.6 percent), being beaten up by others (33.6 percent), and thinking about or attempting suicide (23.7 percent). The crimes consumers commit the most include robbery (78.3 percent), and assault (2.6 percent), and over a quarter of these crimes (26.81 percent) involve other drug users<sup>17</sup>. Individuals who consume drugs in public places have the highest risk of being extorted by police officers, and 73.2 percent of those surveyed report having been discriminated because of drug use by society, the authorities, their families, or others.

In conclusion, the media and official sources heavily rely on the ENAs to measure drug consumption in Mexico; nevertheless, their limitations were not taken into account when the results were reported, generating notable distortions in the analysis, which led to imprecise trend assessments. For a more complete and objective panorama concerning the drug consumption problem, the ENA should contemplate these issues, and policy makers should also take other sources into account, such as CUPIHD's survey, which includes additional information on the context in which consumption takes place as well as on consumers' perceptions of consumption and drug policies. Additionally, the title of the ENA itself—National Addictions Survey—stigmatizes drug users as drug addicts and does not clearly define the differences between consumption and dependency, which affects the focus of government prevention programs while overestimating their target population.

### IIIC. Relevant trends in the illicit drug supply $^{18}$

This section uses an economic perspective to examine the behavior of the illicit drug supply and the policies related to the war against drug trafficking in Mexico during Calderón's administration—with the purpose of evaluating the effectiveness of the drug policy during this period. The analysis evaluates both the potential production of illicit drugs in Mexico and its value, as well as the value of the production that would have been generated by the eradicated areas and seized drugs. These "hypotheticals" are based on data that Mexico reported to the CICAD—with the perspective, tone, and focus coming directly from the Commission's reports.

The data allows for a comparison between the Calderón and Fox administrations, specifically with respect to the efficiency of expense allocations and its economic value to the Mexican economy. The most important conclusion of this study is that the efficiency of expenses against drug trafficking from 2004 to 2009 fell each passing year. In other words, more money was spent with fewer results (the results are measured by the parameters of success used by reports themselves, e.g., eradicated areas and seizures, and the impact that these had on drug traffickers' earnings). This section compares the effects of the prohibitionist policies of the Fox and Calderón mandates, focusing on the supply of marijuana, opium, and amphetamine-type stimulants (these are the three Mexican-processed and produced drug types that amass the greatest participation at the international level in terms of consumption, according to UNODC).

It is important to note that the production and processing of drugs is estimated based on the total amount of drugs seized. However, Thoumi (2005) argues that this approach has conceptual, political, and technical limitations when attempting to measure the illicit drug market's size. These limitations include statistical impediments, inexact data derived from the illegal nature of the market, and the difficulty of estimating variables related to drug trafficking, such as illicit revenue, added value to the Gross Domestic Product (GDP), and trafficking's effect on job creation (direct and indirect), among others.

<sup>&</sup>lt;sup>17</sup> 115 of the 429 people who were interviewed by CUPIHD committed crimes under the effect of drugs.

<sup>&</sup>lt;sup>18</sup> This section is extracted from Núñez and Garduño (2014).

The information used in this section was principally obtained from the UNODC and CICAD—the latter largely uses data reported by the Mexican government. Although there are other official sources of information, such as the International Narcotics Control Strategy Report (INCSR), which is used by the United States Department of State, the data does not differ substantially from that offered by CICAD (which is part of the OAS). According to the Convention on Narcotic Drugs of 1961, member states deliver an annual report to the OAS general secretary summarizing their national results and efforts in terms of production, eradication, and seizures, which is then published by the UNODC.

CICAD's 2010 report (CICAD, 2010), which covers the period from 2002 to 2009, is the main source of information used in this section<sup>19</sup>. Based on criminal organizations' estimated losses given the increase in seizures and eradications, the report concludes that the current drug policy has been a success. The CICAD solely evaluates the success of the current policy by measuring the earnings that organized crime failed to generate. Nevertheless, a cost-benefit analysis demonstrates that the final balance is not necessarily positive, even if the indicators the CICAD uses to measure success are correct. Thus, the validity of the CICAD's data, as well as the effectiveness and efficiency of policies based on controlling the drug supply, is questionable.

According to the UNODC (2012), Mexico leads the global production and processing of marijuana. In terms of the quantity seized in 2010, 37 percent of the total was seized in Mexico, followed by the United States (31 percent), Tanzania (4 percent), Colombia (4 percent), and Morocco (3 percent). According to the OAS report (CICAD, 2010), 23,315 hectares of marijuana were aerially or manually eradicated in Mexico in 2007, 18,659 in 2008, and 16,699 in 2009, as shown in table 1. Even though manual eradication is more frequent than aerial eradication, its use has declined from 95.46 percent in 2008 to 85.90 percent in 2009. From 2008 to 2009, the cultivated area of marijuana was cut by 1,273 hectares (6.34 percent), significantly less than the 20.25 percent cut that took place from 2007 to 2008. Between 2007 and 2009, according to table 1, there was a 50 percent drop in forced manual eradication, while aerial eradication doubled.

Year	Areas that are no longer harvested	Marijuana	Unit
2007	Aerial eradication	826	ha
	Forced manual eradication	22,489	ha
	TOTAL	23,315	ha
2008	Aerial eradication	2,630	ha
	Forced manual eradication	16,029	ha
	TOTAL	18,660	ha
2009	Aerial eradication	2,596	ha
	Forced manual eradication	14,103	ha
	TOTAL	16,699	ha

### Table 1. Eradicated area

Source: CICAD (2010).

<sup>&</sup>lt;sup>19</sup> There is no information available from the OAS (CICAD) after 2009, since this was the last year in which the Mexican Government reported information. Mexico's last Multilateral Evaluation Mechanism (MEM) report to CICAD was published in 2009 and is available here: http://www.cicad.oas.org/ mem/reports/4/Follow\_up/Mexico%20-%204th%50Round%20-%20ESP.pdf

The OAS made their cultivated area and potential production estimates without considering the response level, the adaptation of marijuana producers, or the increase in productivity per hectare as a consequence of eradication policies. According to our own calculations, marijuana production<sup>20</sup> decreased by 8,000 tons, or US\$600,000, between 2007 and 2009<sup>21</sup>. However, the OAS report estimates that, in 2009 alone, eradication policies and seizures precluded US\$1.7 billion in earnings<sup>22</sup>.

Data from 2004 to 2006 (when Vicente Fox was president) and from 2007 to 2009 (during Felipe Calderón's mandate) reveals that the eradicated area of marijuana during the Calderón administration was lesser than during the last years of the Fox administration. From 2007 to 2009, eradicated hectares dropped from 30,000 to 15,000, while from 2004 to 2006, average eradication was at more than 30,000 hectares. With respect to seizures, the same trend in the two governments may be observed: 1,700 tons were seized from 2007 to 2009 while 2,300 tons were seized from 2004 to 2006.

In the opium market, according to data from UNODC (2012), Mexico occupies seventh place in the world (with 0.2 percent) followed by Iran (82 percent), Afghanistan (12 percent), Pakistan (4 percent), Iraq (0.5 percent), the United States (0.4 percent), and India (0.4 percent). From 2007 to 2009, the cultivated area increased by 30.25 percent, or from 11,756 hectares to 15,195 (CICAD 2008, 2009, 2010). In contrast to the case with marijuana, manual opium eradication is on the rise. Aerial opium eradication rates are at less than 10 percent of manually eradicated hectares<sup>23</sup>. Despite the increase of more than 3,000 hectares in the eradicated opium area from 2007 to 2009, the increase in the cultivated area is greater (almost 4,000 hectares), partially reducing the government's efficiency in lowering the opium supply. With respect to seized opium production, in 2007, most of the seizures were carried out in the United States (1.5 tons versus 308 kilograms in Mexico), while in 2009, the amount of seizures in Mexico and in the United States were similar (816 and 907 kilograms, respectively).

Using the profitability of opium per hectare and the wholesale price of heroin, reported by CICAD and the UNODC respectively<sup>24</sup>, the profitability of heroin (derived from opium) is 24 times greater than the profitability of marijuana (US\$2,027 per kilo vs. US\$80 per kilo). In 2009, 164 tons of opium were produced, equivalent to US\$331 million, or an increase of almost US\$80 million as of 2007. In comparison, from 2007 to 2009, Mexico seized 1,312 kilograms of opium, which is half of what was seized in the United States (2,777 kilograms), the main destination of Mexican heroin. However, the losses for the illicit opium industry in the Mexican market in 2009 (US\$ 331 million) were much greater than in the United States market (US\$ 28.4 million) when considering the assumed price of lost production in eradicated areas<sup>25</sup>.

When comparing the outcomes of eradications and seizure during the Fox administration (with data from 2004 to 2006) and the Calderón administration (with data from 2008 to 2009), we observe that, despite the increase in the cultivated area from 2008 to 2009 (between 10 and 15 thousand hectares), the total cultivation during the Calderón administration was comparable to the Fox administration's lowest cultivation rates (between 10 and 30 thousand hectares). The high cultivation figures of 2005 were not seen again during the Calderón administration, suggesting an improvement in drug policy results. However, during the Calderón administration, aerial eradication was predominately used—a questionable "improvement" given that this strategy's negative effects on human health and the environment surpass the benefits<sup>26</sup>.

The amphetamine-type stimulant market was analyzed for both methamphetamines and amphetamines. The amount of methamphetamines seized in 2009 was more than nine times greater than in 2007: 805 kilograms vs. 8,005 kilograms (the latter being equivalent to more than US\$100 million), respectively, in 2007 and 2009<sup>27</sup>. The amount of seized amphetamines is much smaller. In 2007, 25 kilograms of amphetamine were seized; however, in 2009, only 1 kilogram was confiscated. Before 2009 and during the Fox administration, stimulant seizures were not significant.

<sup>&</sup>lt;sup>20</sup> The authors assume a performance of 1.2 tons per hectare.

<sup>&</sup>lt;sup>21</sup> Assuming a wholesale price of US \$80 per kilo according to the UNODC (2011).

<sup>&</sup>lt;sup>22</sup> These figures should be taken with caution, as we have no way of ascertaining production levels had the eradication policy not been implemented.
<sup>23</sup> Aerial crop-dusting herbicide campaigns can have negative side effects on the environment and human health. Manual eradication campaigns to destroy illegal crops have also been implemented, not only avoiding the above damaging effects but also guaranteeing that the destroyed crops are indeed those that were targeted for eradication (for more details, see Gaviria Uribe and Mejía, 2011).

<sup>&</sup>lt;sup>24</sup> Assuming a performance of 11 kilos per cultivated hectare (CICAD) and a wholesale price of 2,027 dollars per kilogram (UNODC).

<sup>&</sup>lt;sup>25</sup> The estimates use an assumed opium wholesale price of US\$31,500 per kilogram, for the United States.

<sup>&</sup>lt;sup>26</sup> See Gaviria Uribe and Mejía, 2011.

<sup>&</sup>lt;sup>27</sup> Based on a wholesale price of US\$12,934.74 per kilo (UNODC, 2010).

As noted above, CICAD data suggests a reduction in the crops as well as in the trafficking of illicit substances, measured by the eradication of crops and seizures. Moreover, the estimations in this section, based on reports by CICAD and UNOCD, suggest that the marijuana, opium, and stimulant markets have been affected by the government's prohibitionist policies. In spite of the limitations and criticism to these assumptions, this reports uses its own estimates to conduct a cost-benefit analysis of Calderón's drug policy.

During the Fox administration, efforts were focused on the seizure and eradication of marijuana, while Calderón's administration focused on opium and stimulants. The eradicated areas of seized marijuana and poppy represent an annual average of US\$3 billion in sales when considering the three drugs (marijuana, opium, and stimulants)<sup>28</sup>. Specifically, and following CICAD's logic, the producers and dealers of these three drugs "stopped receiving" US\$3.5 billion per year as a result of the seizures implemented by the Fox administration and stopped receiving a mere US\$2.7 billion per year due to Calderón administration's seizures. In real terms, from 2004 to 2006, the expenses of the war against drug trafficking and organized crime increased by US\$190 million, but increased by US\$1.9 billion from 2007 to 2009. In other words, there was an increase of more than US\$2.3 billion during the whole period (2004 to 2009)<sup>29</sup>.



### Graph 2. Estimated relative value of seizures and approximate expenses against drug trafficking

Source: Our own calculations supplemented with program data from the Secretariat of Finance and Public Credit and CICAD (2010).

The efficiency of each peso spent in the war against drug trafficking can be determined by analyzing the proportion between the estimated value of the seizures and government expenses (described in the previous paragraph): the greater the proportion, the more efficient the expenses. The results in graph 2 suggest that efficiency has decreased on a yearly basis.

Between 2004 and 2006, each peso spent on the war on drugs in Mexico corresponded to five pesos of lost income for illicit drug business (a ratio of 1 to 5). After 2006, this ratio increased to 1 to 2, suggesting that for each peso spent on the war on drugs, drug business only lost two pesos. Taking the entire Mexican economy into account—not just federal

expenses—the real expenses of the war against drug trafficking from 2004 to 2006 totaled at less than 0.13 percent of the GDP. However, after 2008, this trend changed and the expenses were at 0.35 percent of the GDP in 2009.

Meanwhile, the real value of the seizures (using estimates from this study) suffered a downward trend from 2004 to 2009, with its value in the latter year totaling at 0.24 percent of the GDP. This data confirms the inefficiency of the program from 2007 to 2009. In regards to Mexico's real GDP, the expenses increased while the proportion of seizures decreased, as shown in graph 3.

<sup>&</sup>lt;sup>28</sup> Using a productivity measure of 1.2 tons and 11 kilos per hectare, respectively, for marijuana and poppy, as well as wholesale Mexican market prices of US\$80 per kilo for marijuana, US\$12,934.74 per kilo for amphetamine-type stimulants, and US\$2,027 per kilo for opium (information from the CICAD, 2010).

<sup>29</sup> Information obtained from the Secretaría de Hacienda y Crédito Público (SHCP; Secretary of Finance and Public Credit) (2012a).

GRAPH 3. APPROXIMATE RELATIVE EXPENSES OF THE FIGHT AGAINST DRUG TRAFFICKING AND SEIZURES IN RELATION TO MEXICO'S REAL GDP



Source: Our own calculations with data from the INEGI's Mexican System of National Accounts (2012) as well as indicators from the Secretaría de Hacienda y Crédito Público (SHCP; Secretariat of Finance and Public Credit) (2012a), CICAD (2010), and UNODC (2011) programs.

These results are relevant for many reasons. First, the CICAD reports suggest a very simplistic scenario of the drugs phenomenon, using assumptions of a reality that does not exist and failing to consider the market's response to the government's eradication and seizure policies. For example, increasing seizures or eradicating more crops could lead to greater productivity per hectare or to the discovery of new trafficking routes. Additionally, as mentioned by Thoumi (2005), the report's size measurements are inaccurate, and assumptions based on proxies generate unreliable results.

Second, assuming that the figures reported by CICAD, UNODC, and the Mexican Government are true, and taking into account that there is no other information available to evaluate the size of the illicit drug market, the estimates used in this section suggest public expenses were inefficiently allocated to the war against drug trafficking and organized crime. This inefficiency was exacerbated during the first three years of the Calderón administration. In 2004 and 2005, approximately 70 percent of these expenses translated to earnings drug traffickers lost to eradications and seizures. In 2009, this figure was only at 20 percent. When these figures are analyzed as a proportion of the GDP, similar results may be observed: the expenses of fighting drug trafficking increased, but this did not translate to an increase in seizures.

Finally, during this period, the budget for the treatment of addictions was considerably cut. In 2007, these expenses were estimated at US\$6 million, but in 2009, they fell to US\$2.6 million (CICAD, 2010). This information suggests that not only were the expenses to fight drug trafficking and organized crime more inefficient, but also that up until 2010, there was very little investment in public health programs. The prohibitionist policy of the first two to three years of the Calderón administration failed to frame the problem as a public health phenomenon that would warrant an alternative perspective<sup>30</sup>.

<sup>&</sup>lt;sup>30</sup> According to the data from the Fifth Government Report (Felipe Calderón) in 2011 (Presidencia de la República, 2011b), the federal government's expenses on prevention and treatment increased by 59.7 percent between 2010 and 2011; however, since CICAD only has information up until 2010, we decided to analyze the budget in this section up until said year as well.

### IIID. Results and consequences of the "War on Drugs" The budgetary impact of a prohibitionist drug policy: 2006–2012<sup>31</sup>

During Calderón's administration, the public expenses invested in drug policy reached significant levels. According to information from the yearly federal expenses published in the Secretaría de Hacienda y Crédito Público (SHCP; Secretariat of Finance and Public Credit) approximately MX\$814,033.6 thousand million pesos were invested in drug policy from 2006 to 2012 (see table 2). However, information on how much was actually destined to drug policy is ambiguous and inexact as the data is scattered among several information sources.

In this section, an estimate of the public expenses invested in drug policy is calculated after analyzing the budget accounts of several government sectors. The drug policy is broken down into two expense categories: (i) law and order; and (ii) prevention, treatment, and human rights.<sup>32</sup>

Drug policy budget information is traditionally obtained from the expense register of the SEGOB, including SSP, SEDENA, SEMAR, and the PGR (for more information see *Centro de Estudios de las Finanzas Públicas* (CEFP; Center for de Study of Public Finances), 2006; 2010; Reyes Tépach, 2006a; 2006b; 2008; 2009a; 2009b; 2009c; 2010a; 2010b; 2011; and Sosa-Rubí, Sesma and Guijarro, 2009). According to the literature, the analysis of public expenses can be studied under three focuses: (i) destination (identifies the assignment of the public expense in drug policy); (ii) priority (estimates the cost of the resources allocated to different drug-policy priorities); and (iii) impact (evaluates policy results in Mexico).

In this section, public expense estimates are analyzed under the first approach, "destination," meaning that we focus our attention on identifying where the federal government allocated its drug policy expenses. This perspective was chosen for two reasons: first, a study focused on the impact of the policy would need to first analyze the destination, and then the priority. Likewise, to conduct a study focused on the priority, we would need to analyze the destination as well. Because there is so little information and experience in calculating Mexico's drug policy budget, the destination approach was chosen as a first step to provide evidence regarding drug policy expenses. Second, existing studies, namely the Chamber of Deputies' reports, only provide information on allocations related to national security. Since the objective of this section is to present a perspective based on better international practices regarding the allocation of expenses in drug policy, our first step was to identify the existing information, not only in the security field, but also in the prevention, treatment, human rights, health, and environmental fields. Once the total budget allocated to drug policy is determined, future research could lead to an analysis of the expenses using the other two perspectives.<sup>33</sup>

<sup>&</sup>lt;sup>31</sup> The information in this section is taken from Purón-Cid (2014).

<sup>&</sup>lt;sup>32</sup> Purón-Cid (2014) divides the expenses on drug policy in three categories: (i) law and order; (ii) prevention, treatment, and human rights; and (iii) health and environment. According to Purón-Cid (2014), there is no information for Mexico on the "health and environment" category, which is why we decided to leave this category out of the report. According to the author, the health category includes the costs of illnesses due to accidents and disorders related to drug and overdose—such as anaemia; bone, skin, and joint infections; meningitis; liver diseases; endocarditis; heart disease; hepatitis; HIV; mental disorders; *Pneumococcal* infections; respiratory diseases; and sexually transmitted diseases; among others. This category also includes the costs of research; insurance costs; medical, hospital, and ambulatory services; costs due to illness and death; and the costs of victims of drug-related crimes; among others. The "prevention and treatment" category includes the costs of specialized prevention programs at schools, media campaigns, the reduction of youth's access to drugs through police surveillance at schools and places of social gathering, the costs of the production of legal synthetic drugs for treatment (methadone), education and counselling, forced abstinence through parole under supervision, and measures to reduce supply and demand. The component of harm reduction also involves the prevention of harm, the mitigation of negative consequences, the exchange of needles, low threshold methadone, messages about responsible consumption, and the healthcare of infected people with addictions.

<sup>&</sup>lt;sup>33</sup> The methodology used for this analysis is known as "clave presupuestaria" ("budgetary code"). Through this methodology, the expense categories assigned to drug policy were coded after a documented revision of the approved budgets, governmental regulations, and available budgetary databases for the 2006–2014 period. A detailed analysis of each of the budget items allows for an intertemporal follow-up of public expenses. A subsequent analysis based on the budgetary code would allow us to identify the destination of the public expenses in three dimensions: namely, administrative, economic, and functional-programmatic dimensions. The information is derived from the "Analytical Code" AC01 of the Expenditure Budget of the Federation from the 2006 to 2012 Fiscal Years.

## TABLE 2. THE EVOLUTION OF PUBLIC EXPENSES ON DRUG POLICIES: 2006-2012 (BILLIONS OF PESOS)

Branches	2006	2007	2008	2009	2010	2011	2012	Total period
Total budget	1,562.94	1,749.94	1,992.36	2,289.71	2,376.92	2,560.23	2,755.38	15,287.48
Expenses on Drug Policy	71.08	77.61	110.82	117.59	126.47	143.68	166.79	814.03
Percentage (%)	4.5	4.4	5.6	5.1	5.3	5.6	6.1	5.3

Source: Our own calculations based on the 2006–2012 expense budget projects of the federation issued by the SHCP (2012b).

The budgets are classified according to their destination to each of the drug policy's categories. The top-down<sup>34</sup> method was applied in the categories of (i) prevention, treatment, and human rights; and (ii) law and order. This approach was used because there is no coding for the drug policy in the federal budget codes. Even though the illicit drug phenomenon is a priority for the government, the absence of a clear and direct code in the budget suggests that the government did not design methods or accounting systems to adequately allocate the budget for recording and monitoring the drug policies' public expenses.

For the 2006–2012 period, 97.09 percent of the total resources assigned to drug policy was allocated to the second category, law and order. In the other category—prevention, treat-

ment, and human rights—the total resources only reached 2.9 percent of the total drug-policy budget. Graph 4 shows the disparity between drug policy expenses: 73 percent of the expenses on prevention, treatment and human rights budget was assigned to the health sector; 13 percent was assigned to the *Comisión Nacional de los Derechos Humanos* (CNDH; National Commission of Human Rights); and 6 percent, to the PGR<sup>35</sup>. Of the law and order budget, 29 percent was assigned to the judicial sector; 25 percent went to defense; and 20 percent went to public safety<sup>36</sup>. Graph 4 also shows the growth trend in the drug policy budget for these two categories from 2006 to 2012. During the entire period, the public expenses assigned to drug policy increased by 134.6 percent, the highest growth being from 2007 to 2008, when public expenses increased by 42.8 percent.

<sup>&</sup>lt;sup>34</sup> The top-down method classifies incurred costs in drug policy from the perspective of the agencies in charge of implementing the policy. This method classifies cost information based on the information systems and logic of the authorities, governments, and organizations that implement and execute these measures.

<sup>&</sup>lt;sup>35</sup> This "prevention, treatment, and human rights" budget includes the budgets implemented by the National Center for the Health of Children and Adolescents, the CIJs, the Technical Secretariat of CONADIC, the National Center for the Prevention and Control of HIV and AIDS, and CENADIC, among others. For more information, see Purón-Cid (2014).

<sup>&</sup>lt;sup>36</sup> In the "law and order" category, the budget was principally assigned to the Federal Council of the Judiciary, the federal police, the headquarters of Military Region I (Federal District, Hidalgo, State of Mexico, Morelos), the Directorate General for Programming and Budgeting "A", the naval forces, regions, zones, sectors, and prevention and social rehabilitation, among others. For more information, see Purón-Cid (2014).

## Graph 4. Breakdown of public expenses (%) by category and relative change from 2006 to 2012



Source: Developed based on the 2006-2012 annual expense budgets of the Federation as published by the SHCP (2012b).

### Graph 5. Relative change in public expenses on drug policy (2006–2012), including the "Law and Order" and "Prevention, Treatment, and Human Rights" budgets



#### Percentage change %

Source: Developed based on the 2006–2012 annual expenditure budget projects of the federation, as published by the SHCP (2012b).

Analyzing the public expenses in this section would suggest that Felipe Calderón's drug policy mainly focused on the law and order category, leaving little margin for expenses in prevention, treatment, and the protection of human rights. Overall, Mexico's drug policy is defined as a public safety, national security, and judicial phenomenon. This definition reflects the prohibitionist perspective, which focuses on the judicial/criminal aspect of the drug policy leaving other perspectives unattended. Although these are important findings, the analysis of this section has limitations, since the analyzed results are based on approximation. Mexico does not have an accountability system to evaluate the adequate allocation of the federal budget, and besides that, there are no categories in the budget to analyze drug policy expenses directly. Without a trustworthy statistics system, an approximation of this allocation neither allows for in-depth analysis of each of drug policy budget's dimensions, nor for the design of a solid evaluation methodology.

## The impact of the prohibitionist policy on human rights: 2006–2012<sup>37</sup>

One of the more straightforward consequences of the Calderón administration's war against drug trafficking is observed in the rise of human rights violations; nevertheless, an easy or automatic measurement to quantify the impact of this policy on human rights violations is still lacking. There is no database with indicators on violations of human rights in Mexico, nor is there one including indicators of violations tied to the war against drug trafficking. Therefore, the closest indicators of this consequence would be the registered complaints as well as the recommendations put forward by the CNDH. In this section, the complaints the CNDH receives along with the recommendations this same body issues-often to the SEDENA, the SEMAR, the Policía Federal (PF; Federal Police; previously "Policía Federal Preventiva", PFP; Federal Preventive Police) and the PGR—are summarized and analyzed. Additionally, this section also analyzes the complaints related to "organized crime<sup>38</sup>", drug trafficking, military detention, and jurisdiction that were sent to the Office of the United Nations High Commissioner for Human Rights (OHCHR) and the OAS. According to the CNDH, the governmental dependency with the highest number of complaints related to the war against drug trafficking during the Calderón mandate was the SEDENA, which accounted for 17.5 percent of the total complaints received by the CNDH. Complaints against SEDENA have increased continuously every year since 2008. The complaints against SEMAR, while fewer than those against SEDENA, also increased significantly during the period in question, passing from 0.6 percent of the total complaints received by the CNDH in 2007, to 4.8 percent in 2011. However, most of this increase took place after 2010, when the SEMAR became more involved in fighting organized crime.

This section reviews the CNDH's recommendations for several government institutions and identifies which of said recommendations were related to the war against drug trafficking. The trends in the amount of CNDH recommendations are very similar to trends for the complaints the CNDH received: SEDENA received the greatest number of recommendations (18.4 percent of the total), which increased significantly since 2008 (from 14.9 percent in 2008, to more than 33 percent in 2009, and up to 22.1 percent in 2010 and 2011). Likewise, the recommendations for SEMAR also increased during the six-year period, going from 0 percent in 2007 to 6.5 percent in 2012. Once again, the most significant growth was observed after 2010.

Year	Total number	SEDENA	SEMAR	PGR	SSP (PFP/PF)	Total
2007	70	3 (4.3%)	0 (0%)	0 (0%)	0 (0%)	3
2008	67	10 (14.9%)	0 (0%)	1 (1.5%)	2 (3%)	13
2009	78	26 (33.3%)	0 (0%)	6 (7.7%)	1 (1.3%)	33
2010	86	19 (22.1%)	4 (4.7%)	2 (2.3%)	5 (5.8%)	30
2011	95	21 (22.1%)	6 (6.3%)	1 (1.1%)	6 (6.3%)	34
2012	93	11 (12%)	6 (6.55%)	2 (2.2%)	7 (7.5%)	26
Total	489	90 (18.4%)	16 (3.3%)	12 (2.5%)	21 (4.3%)	139

### Table 3. The cridh's Recommendations: 2007-2011

Source: CNDH (n.d.).

<sup>&</sup>lt;sup>37</sup> The information in this section is obtained from Anaya (2014).

<sup>&</sup>lt;sup>38</sup> The information on recommendations comes from the database "Recomendaciones internacionales a Mexico en materia de derechos humanos" (Secretaría de Relaciones Exteriores, Oficina del Alto Comisionado de Naciones Unidas para los Derechos Humanos, & Anaya, n.d.). In this work, drug trafficking is considered a concrete variant of "organized crime". With respect to international recommendations, recommendations regarding "organized crime" are included as this was the classification used in said database.

The states with the highest number of human rights violations according to the number of recommendations issued were Chihuahua (31), Michoacán (17), Nuevo León (12), and Tamaulipas (11). When the recommendations were analyzed by type of violation, the most common were for torture, arbitrary detention, and extrajudicial execution (cataloged as privation of life according to the CNDH). SEDENA led the number of arbitrary detention and torture violations (51 recommendations were found for each type of violation). SEMAR was found to have committed the most torture (nine recommendations), arbitrary detention (eight recommendations) and extrajudicial executions (seven recommendations). The PF/PFP was also partially sanctioned by the CNDH for committing torture (10 recommendations)<sup>39</sup>.

The recommendations related to the war against drug trafficking issued by two international organizations specializing in human rights, the UN and OAS, are categorized in three types: organized crime, military detention, and jurisdiction<sup>40</sup>. Their recommendations for Mexico concerning these three topics during Calderón's term varied: some promoted government intervention in the war against organized crime, while some urged the government to protect minors both from organized crime and from the security forces' activities to fight organized crime. The two organizations recommended both the elimination of extrajudicial detention in general as well as the elimination of military jurisdiction over cases of human rights violations that were presumably committed by members of the armed forces<sup>41</sup>.

In sum, due to the lack of indicators to measure the effect of the war against organized crime on human rights violations, an adequate proxy<sup>42</sup> would be the complaints submitted to and the recommendations issued by the CNDH. The analysis in this section suggests that there was a significant increase both in the complaints and in the recommendations—specifically those involving SEDENA, SEMAR, and PF/PFP. However, the growth observed in the number of complaints does not necessarily imply a similar growth in the number of violations, as complaints could merely correspond to an increase in public attention, or to civil society organizations' efforts to help affected populations make demands to improve their situations. Nevertheless, it is unlikely that such marked changes not reflect, at least in part, similar trends in reality. Considering this limitation, the data suggests that human rights violations in the war against drug trafficking were particularly abundant during Felipe Calderón's six-year term. The fact that the majority of these violations has concentrated in the states with the highest levels of violence related to drug trafficking (such as Chihuahua, Michoacán, and Nuevo León) backs this hypothesis. According to the recommendations, the most recurring violations in these states were torture, forced disappearances, and extrajudicial executions.

### Political effects: how has the illicit drugs phenomenon affected electoral competitiveness?<sup>43</sup>

This section analyzes the effects of drug-cartel violence on electoral competition at the municipal level. Electoral competition, as measured by the Gini<sup>44</sup> coefficient, is affected when factors other than the electoral system or voter preferences distort the results. According to Sartori (1976), greater electoral competition translates to an equal distribution of votes, making the alternation of an event more probable. Electoral competition grows according to the main parties approximation to a more leveled distribution of the electoral force. In this way, violence (and more importantly, violence related to drug trafficking) can be seen as an external factor, since it can be used to alter the results of elections, either through alterations to electoral offering or through electoral demand.

Violence in Mexico shows two principal characteristics. First, violence significantly increased after 2006, from 10,000 to 25,000 annual homicides in 2010, with an annual growth rate of almost 30 percent. Second, violence concentrates at the local level, particularly in just 5 percent of Mexico's munici-

<sup>&</sup>lt;sup>39</sup> In Anaya (2014), the analysis on reported violations is not broken down in the same way as the analysis of issued referrals, which is why a distinction can be made between the issued referrals and the reported violations. Even without this information, it would be important to understand these numbers. For example, a trend analysis on the number of issued referrals could help observe whether referrals are more consistent than the number of reported violations, which would then help us understand whether the reported violations turned out not to be true as well as whether bureaucratic paperwork remained constant, increasing the number of complaints.

<sup>&</sup>lt;sup>40</sup> Military jurisdiction is used as a subtopic of the topic "armed forces."

<sup>&</sup>lt;sup>41</sup> Towards the end of Calderón's six-year term, there were very significant trends in Supreme Court decisions involving military jurisdiction. See Anaya (2013).

<sup>&</sup>lt;sup>42</sup> A proxy is the closest indicator to the reality one aims to observe.

<sup>&</sup>lt;sup>43</sup> This section is taken from Ponce (2014).

<sup>&</sup>lt;sup>44</sup> The Gini coefficient is one of the most widely used measures for inequality, where 1 means perfect equality and 0 means perfect inequality.

palities. These two characteristics lead us to believe that violence is affecting municipal authorities, voters, and electoral candidates in different ways. As for the municipal authorities, drug traffickers could directly affect their integrity, elevating levels of local corruption. As for voters, they may not be able to vote if they are threatened or if they perceive that their lives could be at risk if they vote. In terms of electoral candidates, violent practices may affect electoral results, either through the assassination of specific candidates or by intimidating candidates who suspect they may be killed once they become public officers. In the literature, the various forms of intimidation that affect electoral results are known as violent actions concentrated in the electoral offering (when it comes to electoral candidates) or in the electoral demand (when it comes to voters)<sup>45</sup>.

In Mexico, violence concentrates in municipalities that play an important role in the production and trafficking of illicit drugs. Since 2008, homicide rates have increased at the municipal level, reversing the trend that was observed 20 years ago. Escalante (2011) suggests that the rupture in the homicide trend not only stems from changes in the modus operandi of "organized crime," but also from the Calderón administration's strategies for the "war against organized crime." These strategies involved the deployment of the army, navy, and federal police in various states, concentrating in municipalities where homicide rates shot up after 2008<sup>46</sup>. According to data from INEGI, intentional homicides at the municipal level, a proxy used to measure violence, concentrate in approximately 53 percent of municipalities, whereas 16 percent of municipalities register no homicides. Further, only 5 percent of municipalities register 10 or more homicides per year.

This section uses econometric methods to demonstrate that higher levels of violence contribute to lower electoral competition at the local level (municipal), and that this decreased competition is reflected in a higher concentration of votes among a lower number of electoral alternatives<sup>47</sup>. As mentioned above, we use the Gini coefficient to measure electoral competition. A coefficient of zero would mean that all the electoral alternatives obtained the same number of votes, while a coefficient of one would mean that one of the alternatives received all the votes.

Homicides at the municipal level are used as a proxy for violence levels. Additionally, control variables are included, such as the performance of the governing party; this party's power to retain its mandate; the number of police (police can help neutralize the presence of cartels in municipalities or reduce electoral competition through corruption); municipality income per capita (which serves as a proxy for the inhabitants of any given municipality's access to media and communications, which would favor electoral competition); and the municipality's population size (to measure the effect of social networks as well as drug cartels' abilities to acquire information on voter preferences).

The results of our econometric analysis confirm the hypothesis that violence increases inequality in the electoral process. According to the results, electoral distortion is associated with a greater number of homicides. With respect to the control variables, the results suggest that only lower income per capita and the alternation of governing parties correlate to lower levels of inequality in the distribution of electoral support. Both the number of police elements and the size of the population do not seem to have a significant impact on the distribution of electoral support.

In conclusion, this analysis suggests that violence can be an effective mechanism to sway alternative candidacies, potentially contributing to a rise in local authoritarianism. In this sense, violence is an institutional cost that policy makers acknowledge when choosing strategies for the problem of the illegal trafficking and commercialization of narcotics. From a

<sup>&</sup>lt;sup>45</sup> Information sourced from Bratton (2008); Chaturvedi (2005); Collier and Vicente (2012); Cruz (2000); García (2009); Gilliam and Iyengar (2000); Kerbel (2001); Robinson and Ragnar (2009); Romer, Jamieson, and Aday (2003); Sánchez and Palau (2006); and Trelles and Carreras (2012), among others.

<sup>&</sup>lt;sup>46</sup> The first deployment took place in Michoacán in 2006, followed by Operation Baja California (based in Tijuana), Operation Chihuahua, Operation Culiacán-Navolato in Sinaloa, Operation Sierra Madre in Sinaloa and Durango, Operation Nuevo León-Tamaulipas, and Operation Guerrero in 2007 (Escalante, 2011).

<sup>&</sup>lt;sup>47</sup> Tobit models were used here, as they are adequate for the analysis of truncated dependent variables, such as the Gini coefficient. Additionally, hierarchy models were used to correct the lack of statistical independence between some observations. The municipalities were grouped in clusters of violent and non-violent municipalities. This grouping allowed us to estimate the model's equations on two levels: the municipal level and the level of violence (distinguishing violent territories from non-violent ones). For a more detailed description of the methodology, see the working document by A. Ponce (2014). Even though it would have been interesting to use violent municipalities from a previous period (before they reached current levels of violence) as a control group, this comparison was precluded by the lack of data in the SEGOB. Information could be obtained from INEGI, which measures violence in general, but since the objective of this investigation was the effect of the drug cartels, general violence would not be the best proxy.

political standpoint, Calderón's policies appear ineffective, as they have not reduced the political costs associated to violence. On the contrary, Calderón's military strategy seems to have increased violence, contributing to a distortion of electoral results. Not only has police and military presence failed to correct these effects, but their presence has also created fear in the population. In this sense, the government loses even more power, being unable to offer citizens security once cartels have achieved their electoral objectives at the local level.

### Economic effects: how are regional economies affected?<sup>48</sup>

This section analyzes how the illicit drug phenomenon has affected different aspects of regional economies. In particular, the analysis focuses on its effects on the population at the municipal level, economic units, and the Gross Census Value Added (GCVA). Subsequently, the effects at the state level are studied by analyzing changes in the state's GDP determinants. In the municipal and state analysis, the homicides that are presumably attributable to organized crime are used as a proxy to analyze the effect of drug-related violence on economic variables.

Because the data from the 2010 Census reflects migratory movements five years back (2005), the last few years' population exodus stemming from increased drug-related violence cannot be quantified. Nevertheless, the data reveals the population difference in absolute terms, allowing us to draw some inferences about migration movements stemming from violence<sup>49</sup>. Two motives may help explain negative population changes from 2005 to 2010 in the municipalities that were most affected by drug-related violence: first, these municipalities stopped attracting internal immigration; second, their inhabitants emigrated to other regions. Negative population changes are observed in municipalities such as San Nicolás de los Garza (Nuevo León) and Guadalajara (Jalisco) down by 7 percent and 6.6 percent, respectively. Figure 1 shows the correlation between the changes in Economic Units (EU), population changes, and homicides related to organized crime in the municipalities that reported drugrelated violence. Municipalities with lower indexes of violence and considerable population sizes attracted the population fleeing from the violence in municipalities with greater security problems. This is the case in the state of Sinaloa's municipality of Navolato (located 40 minutes from Culiacán and two hours from Mazatlán), which received populations from Culiacán; the municipality of Zapopan, Jalisco, which received populations from Guadalajara; and the municipality of Apodaca, in Nuevo León, which received populations from Monterrey. These municipalities, which register less violence, received migrants from nearby municipalities with more violence. The main limitation of the data<sup>50</sup> is that causal links between violence and migration cannot be inferred. Thus, it is impossible to know whether drug violence is the main factor causing these migrations. However, these exercises suggest that those municipalities with greater violence saw a decrease in population, while the surrounding municipalities with lower levels of violence underwent an increase in population. These findings are similar to Bagley's findings (2002), whereby an increase in violence and insecurity in rural and urban zones causes higher migration from violent places to more secure ones.

<sup>&</sup>lt;sup>48</sup> This section is mainly sourced from Garduño (2014).

<sup>&</sup>lt;sup>49</sup> An analysis of the correlation between net migration and the number of homicides showed a negative correlation of 0.16, which is not sufficient to quantitatively demonstrate the existence of a population exodus; nevertheless, there is literature that proves this phenomenon, such as Bagley (2002), Lozano-Gracia, Piras, Ibáñez, and Hewings (2010), and Rodríguez-Oreggia and Flores (2012).

<sup>&</sup>lt;sup>50</sup> The last Population Census the INEGI carried out took place in 2010. We need to wait for the 2015 population count to observe the effects of reported drug violence from 2011 on migration flows.

Figure 1. Breakdown of municipalities by change in population/housing and violent deaths



Source: Our own production with data from INEGI (2005, 2010) and EI Universal ("EI detalle mes a mes de los homicidios del narco", 2011).

To analyze the relative changes in the creation of Economic Units (businesses), we used the last two economic censuses conducted in 2003 and 2008. The dispersion of economic units' growth rates is significant, showing greater growth rates in those municipalities that experienced a lower number of drug-related homicides than in those with higher levels of violence; nevertheless, only 10 of the 28 municipalities analyzed created more economic units than the national average (37 percent). The effect of violence on the creation of businesses was notorious in municipalities such as Juárez (with EU creation rates at 0.27 percent), Nuevo Laredo (2.27 percent), Monterrey (7.91 percent), and Guadalajara (9.96 percent), all of which registered very low levels of new economic activity. The correlation between drug-related homicides and the number of created economic units implies that the higher the level of violence, the lower the number of firms created. There also seems to be a space correlation in the geographic distribution of these municipalities, since the liquidation of businesses in some of the municipalities can be explained by their moves to safer neighboring municipalities. For example, the economic growth observed in Apodaca, Nuevo León, could be seen as a consequence of poor economic performance in Monterrey and San Nicolás de los

Garza. This situation is also observed between Zapopan (higher economic performance) and Guadalajara (lower creation rates for new businesses).

The GCVA also uses information from the last two economic censuses, from 2003 and 2008. The GCVA measures economic production in a given region, including all its economic sectors (manufacturing, mining, services, and commercial sectors). This measure is related to the GDP, since both point toward production levels (at the local and federal level, respectively), but the GCVA does not include taxes or subsidies for products. Because the GCVA varies according to the size of each municipality, the percentage changes between both years are analyzed.

The analysis suggests that, from 2003 to 2008, Morelia (Michoacán) and San Fernando and Matamoros (Tamaulipas) had a negative relative economic growth of 29 percent, 7.6 percent, and 4.8 percent, respectively. Without proving causality, violence could have influenced the negative economic growth of these municipalities. As said before, violence directly affects the relocation of businesses, and as an indirect result, the lower number of businesses reduces the GCVA in municipalities that suffer from higher levels of violence. Likewise, once the businesses relocate in municipalities with lower levels of violence, these municipalities' GCVAs increase. This phenomenon also seems to correspond to the ease with which certain municipalities (such as Boca del Río and Veracruz) can send their merchandise to international markets, or transport goods (Apodaca) to the United States border by land. A mild negative correlation (-0.0082) is observed between drug-related homicides and the change in GCVA. This last result suggests that municipalities that play an important role in the business of transportation to the United States are also affected by high levels of drug-related violence.

When the relationship between drug-related violence and state GDP is analyzed, a negative correlation between these two variables is also observed, suggesting that the effect of violence is not only observed at the municipal level but also at the state level. By disaggregating the GDP in order to identify the most affected sectors, our results suggest that violence mainly has a negative effect on the communication, financial, professional, and real estate sectors.

Two of these sectors are analyzed in detail: communications and real estate services. These two sectors were chosen because of their geographical variation and their significant correlation with violence in most of states. According to data from the *Centro de Periodismo y Ética Pública* (CEPET; Center for Journalism and Public Ethics), in 2010 alone, 139 aggressions against reporters and 21 against media communications were registered, explaining the negative correlation between the number of homicides and this determinant of the GDP. The relationship between violence and real estate services is harder to explain, since violence could have different effects on the real estate market. On the one hand, outmigration from the most violent states could have a negative impact on their real estate markets. On the other hand, if this migration is directed to the U.S., states with low levels of violence are not going to experience changes in their real estate markets due to immigration from violent states.

As observed previously, the regions (at the municipal or state level) that show the highest rates of homicide related to organized crime also show greater reductions in their economic activity. One of the main reasons for this low or negative growth is the exodus of families that decide to flee violence and migrate to safer regions, as suggested by Guerrero Gutiérrez (2012). The population exodus is one of the greatest economic costs of the security crisis. In some Mexican cities, such as Ciudad Juárez, the epidemic of violence caused a circle of migration, economic decline, urban deterioration, and worsened security (in a context of less economic activity and an increase in criminal organizations' capabilities to recruit new members).

However, as mentioned before, one of the great limitations of these results is the lack of recent economic data at the municipal level that would allow us to prove causality between illicit-drug-related violence and economic activity (and demography) at the municipal level. The economic census of 2014 (with data from 2013) will open this opportunity.

## PART IV. Security and justice: changes in legislation and implementation

### IVA. NATIONAL AND INTERNATIONAL ILLICIT DRUG REGULATION $^{51}$

The international regulation of drugs is articulated in three treaties: the Single Convention on Narcotic Drugs, 1961, which was amended in the 1972 protocol; the Convention on Psychotropic Substances of 1971; and the United Nations Convention against the Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988. This complex international regulation aimed to control, restrict, or prohibit the international trade of certain substances before states approved prohibition at the national level. It was not until the convention of 1988, however, that ascribing nations were obligated to sanction related conducts through criminal law.

In Mexico, the suppression of illicit drugs through criminal law was not included in federal jurisdiction until 2009, when the LNM was enacted and states became involved in the persecution of certain drug-related offenses. All crimes related to the prohibition of drugs are defined as "crimes against health;" thus, the "legal protected good," i.e., the right being protected through penal sanction, is health, and its protection is the end that justifies the penal regulation of drugs in Mexico.

According to the Constitution, health is a fundamental right and is therefore an area of concurrent jurisdiction in which all levels of government should intervene. Nevertheless, concurrency in criminal matters (i.e., the jurisdictional overlap among different levels of government) is very recent and was not clearly established. Starting in 2005, the Constitution was amended so that the authorities of the common jurisdiction (that is to say, the states) could recognize and resolve cases on federal crimes in concurrent matters as determined by the Federal Congress. This reform<sup>52</sup> was implemented for the first time with the approval of the LNM, which gave states the authority to pursue certain drug-related crimes without clearly defining states' obligations in doing so or clarifying its conditions.

The Ley General de la Salud (LGS; General Health Law) and the Criminal Code are the two main legislations through which drugs are regulated in Mexico. The LGS provides administrative regulation as well as the concurrent part of the criminal regulation, while the Criminal Code is strictly criminal and federal. In addition, the LGS, which established the CONADIC, manages and coordinates addiction programs. Within these programs, the Program against Drug Addiction addresses addictions to narcotic and psychotropic drugs. The Criminal Code introduced the term "narcotics," which encompasses all narcotic and psychotropic drugs prohibited in the LGS, in addition to other substances that were included by Mexican health authorities. Crimes against health are also defined as offenses related to narcotics, which include petty drug dealing; drug trafficking; financing and supervising drug-related activities; promoting the consumption, cultivation, transportation and possession of narcotics; and the trafficking of drug supplies.

The following sections provide a chronology of Mexican jurisdiction on the regulation of crimes against health<sup>53</sup>. Afterwards, the processing of crimes against health and how states have implemented the LNM through different institutional changes is also explored.

## IVB. The evolution of legislation: $2002-2012^{\text{54}}$

The Federal Law for the Administration and Alienation of Public-Sector Assets (2002) is an important precedent in

<sup>&</sup>lt;sup>51</sup> This section is sourced from Aquilar Camín *et al.* (2012).

<sup>&</sup>lt;sup>52</sup> Concurrent means that two or more levels of government have simultaneous jurisdiction over one subject.

<sup>&</sup>lt;sup>53</sup> Legislative changes as of 2002 are included, as the drug policy for the studied six-year term cannot be understood without considering certain key reforms from 2002 and 2005.

<sup>&</sup>lt;sup>54</sup> The information in this section is obtained from Madrazo (2014).

Calderón's administration because it establishes that the economic profits derived from the seizures made in the persecution of federal crimes have to be equally distributed between the Poder Judicial de la Federación (PJF; Judicial Branch of the Federation), the PGR, and the Secretaría de Salud (SSA; Secretariat of Health). The SSA specifies that said resources will be used for drug addiction prevention and rehabilitation programs. Even though not all seizures are derived from criminal processes relating to crimes against health, the capital is distributed equally. This peculiar distribution of resources implicitly recognizes that most of the federal persecution of crimes is related to crimes against health (which is also reflected in the proportion of the population sentenced for crimes against health, according to the results of the First Survey of the Internal Population of Federal Social Rehabilitation Centers). Nevertheless, it is important to note that the other two government agencies that benefit from this allocation of resources are responsible for pursuing crimes and sending PGR cases to trial. Thus, the law creates an undesirable incentive to align the interests of institutions that, in theory, should fulfill divergent functions (accusation and trial), creating tension within criminal process. Further, both the PGR and PJF economically benefit from seizures.

Another precedent is the National Security Act (2005), which defines the activities in which the armed forces can intervene. The law established obstructing military and naval operations against organized crime as a threat to national security, implicitly granting the armed forces the faculty to fight organized crime and, as a consequence, drug trafficking (especially crimes against health committed in the modality of organized crime). This responsibility did not historically belong to the armed forces—the persecution of these offenses was, until recently, monopolized by the Public Ministry (as explained below). Similarly, this law opened the possibility for the Federation to intervene in matters that were under state and municipal authority via national security operations and agreements of collaboration, broadening the federal range of action in local jurisdiction.

As mentioned before, the constitutional reform that established the concurrent jurisdictions of the federation and states in criminal matters (2005) remained inactive until the LNM was approved in 2009. Nevertheless, upon its approval, the Legislative Branch of the federal government was granted the faculty to establish the participation of states in the persecution of crimes in concurrent matters (in which more than one level of government participates). Before this reform, federal and state jurisdictions in criminal matters were mutually exclusive.

Reviewing the events preceding the legislative changes proposed by president Calderón, the 2008 constitutional reform in criminal matters may posit a key element. This reform modified the enforcement regime and the administration of justice in two opposing methods: on the one hand, the criminal system became guarantee-based, protecting the rights of victims and of the accused. On the other hand, an exception regime was created for the persecution of offenses related to organized crime. Under this second regime, the authorities involved have more discretion at the cost of the accused person's rights. The reform includes new figures and dispositions for detention (up to 80 days of retention without an accusation), extended detention (up to double the ordinary), carrying out sentences in special centers and in incommunicado, special surveillance measures, preventative detention, full probative value of investigation<sup>55</sup>, the unawareness of the accuser, and the annulment of ownership.

<sup>&</sup>lt;sup>55</sup> Presuming the validity of all findings on file in a criminal investigation (that is, judges were no longer given the role of assessing the weight of any specific piece of evidence: judges must now presume that anything in the criminal investigation file is valid evidence).
OF CRIMES AGAINST HEALTH

#### "Embargo on Property" (This decree issued the Federal Law on the Administration and Disposition of 2002 Public Sector Property and added various provisions of the Criminal Procedures Code, 19/Dec/02) 2003 2004 2005 "National Security Act" (31/Jan/05) 2006 2007 "Penal Process Reform" (Decree by which various dispositions of the Código Federal de Procedimientos 2008 Penales (CFPP; Federal Penal Procedures Code), the LFDO, the CPF, and others were amended, 23/ Jan/2008) "Constitutional Reform for Organized Crime and Oral Hearings" (Decree by which various provisions of the Constitution were amended, 18/Jun/08) 2009 "Federal Telecommunications Law" (Decree by which fraction XVI was added to Article 64 of the Federal Telecommunications Law, 9/Feb/09) "PGR Reform" (This decree issued the Organic Law of the PGR and reformed provisions of the Protection Law, 29/May/09) "Reform of Constitutional Article 16" (Decree by which a second paragraph was added to Constitutional Article 16, 01/Jun/09) "Federal Police Law" (01/Jun/09) "Ley de Narcomenudeo" (20/Aug/09) 2010 "General Law to Prevent and Sanction Kidnapping Offenses" (30/Nov/10). 2011 "Migration Act" (25/May/11) "Constitutional Reform regarding Human Rights" (Decree by which various provisions of Articles 94, 103, 104 and 107 of the Constitution were amended, the name of Chapter 1 of The First Title was modified, and various articles of the Constitution were reformed, 6/Jun/10 – 10/June/11) "Petroleum Theft" (Decree by which various provisions of the Federal Criminal Code, the CFPP, and the LFDO were amended, 24/Oct/11) "Military Justice" (Decree by which various provisions of the Federal Criminal Code, the CFPP, and the LFDO were amended, 16/Nov/11) "Law Establishing the Minimum Standards on the Rehabilitation of Incarcerated Individuals" (Decree 2012 by which this law was reformed, 19/Jan/2012) "Telephone Tapping" (Decree by which various provisions of the Federal Criminal Code, the CFPP, the CPF, the Federal Telecommunications Law, and others were amended, 17/Apr/2012). "Federal Law to Protect Persons Involved in Criminal Proceedings" (08/June/12) "Money Laundering Law" (Decree by which the Federal Law for the Prevention and Identification of IIlegal Proceeds was issued, 17/Oct/12)

### FEDERAL LEGISLATIVE REFORMS

Regarding drug policy, the criminal exception regime is very important, as many crimes against health may fall under organized crime. Moreover, through a transitory article, one of the most important elements in the criminal exception regime, *arraigo*, can be applied to crimes against health, even if these do not fall under organized crime<sup>56</sup>. One of the most worrying aspects, from a fundamental rights perspective, is that the exception may be applied even when an individual has not been accused of a crime. In 2005, the *arraigo* was declared unconstitutional by the Supreme Court; however, it became constitutional with the criminal reform of 2008. Nevertheless, no attention was paid to the *arraigo*'s incompatibility with the fundamental right to personal freedom, which the Supreme Court had enforced upon declaring the *arraigo* unconstitutional in 2005<sup>57</sup>.

In 2009, the constitutional reform turned into the "secondary law reforms." These reforms are of enormous importance, as they dispelled the entire guarantee-based model of the criminal regime that the 2008 reform had set for ordinary procedures. Since the secondary law reform, the authorities' discretion expanded to the whole criminal system, at the expense of the victims' and the accused persons' procedural guarantees. For instance, the police were allowed to take on the dual role of witness and authority when enforcing search warrants.

Also in 2009, the Federal Police Act was approved, repealing the Federal Preventive Police Act and establishing a clear separation of functions for crime prevention and investigation (to be carried out by the PF and the Public Ministry or PGR, respectively). The new law broadened the PF's faculty to assist the PGR in criminal investigations (through their direct participation in investigations) and to carry out "preventive" independent investigations. Thus, this law implemented changes of enormous importance in the prevention and persecution of offenses, and was justified as part of the effort to fight organized crime. As a result, investigations, which used to be under the exclusive domain of the Public Ministry, are now also under the jurisdiction of the federal police. This dual authority causes confusion between different security forces' functions and responsibilities.

This point is important in the scope of the *Ley de Seguridad Nacional* (LSN; National Security Act; 2005) that gave legal support to the naval and military operations against organized crime (even though according to the Constitution the persecution of organized crime should be exclusively under the PGR). Previously, the armed forces' functions were limited to national security issues; public safety was the responsibility of the federal, state, and municipal police, including crime prevention and the persecution of in flagrante delicto, but excluding criminal investigations. The latter were exclusively under the jurisdiction of the Public Ministry, the PGR or the Procuraduría General de Justicia (PGJ; Office of the State Attorney General). However, the LSN enabled the navy and the army to carry out activities that were once under the police. This situation basically substituted the local police with federal forces. The distinction that once existed between national security, public safety, investigation, and enforcement of justice has been gravely eroded, increasing citizen vulnerability. Likewise, each authority's responsibilities in terms of their functions and actions are less clear.

Also in 2009, another few legal reforms to the Federal Telecommunications Act—such as the introduction of an exception for the protection of personal data (constitutional Article 16)—broadened investigational tools at the cost of restricting fundamental rights (in this case, the right to privacy) in cases of public security, national security, and public health, among others. These measures were criticized for generating a problem in determining protected rights. For example, in cases of public safety, national security, and public health, an ordinary legislator can now restrict the right to protection of personal data rather than solely corresponding to an explicit constitutional disposition, as was once the general norm.

The approval of the aforementioned *Ley de Narcomenudeo* in 2009, together with the constitutional criminal reform of 2008, marked a milestone in the development of the normative framework for drug policy. This "law" consists of a set of reforms, additions, and derogations to the LGS, the Federal Criminal Code, and the Code of Criminal Procedure. In criminal matters, the law created a table of maximum quantities of drug possession for personal consumption. This table defined federal jurisdiction faculties (for amounts greater than the maximum quantities for personal use multiplied by one thousand) and state jurisdiction faculties (for amounts less than or equal to the maximum quantities for personal use multiplied by one thousand).

<sup>&</sup>lt;sup>56</sup> Specifically, it involves detention according to the Eleventh Transitory Article of the decree, published June 18, 2008, in the DOF.

<sup>&</sup>lt;sup>57</sup> In 2005, the Supreme Court of Justice determined the act of unconstitutionality of 20/2003: a legislative minority repealed the constitutionality of extrajudicial detention in the penal legislation of the state of Chihuahua. The Court determined that extrajudicial detention "is judicially incompatible with the right to personal freedom that is established in the Federal Constitution..."

In consequence, the specific crime of *narcomenudeo*<sup>58</sup> was created to include offenses related to narcotics possession and trafficking/distribution for amounts greater than those established in the personal consumption table, but lesser than the amounts multiplied by one thousand (Art. 475 of the LGS). In this sense, both consumption and *narcomenudeo* remain under local jurisdiction. In contrast, crimes against health in all other forms, such as possession and commerce/ distribution in amounts greater than the amounts on the tables multiplied by one thousand, remain under the federal authorities (for clarity, these modalities may generically be labeled as "drug trafficking"); nevertheless, there are exceptions in which offenses that usually fall under local jurisdiction may be processed by federal institutions<sup>59</sup>.

In the area of public health, the law established guidelines to regulate the attention to drug addiction and consumption from the administrative sphere and mandated the creation of specific attention programs. For the first time, the LNM defined and distinguished consumption from drug addiction. Despite the fact that states assumed jurisdiction in the persecution of crimes against health, the normative framework is unclear on whether these faculties are optional or compulsory. The answer to this question depends on local legislation and Supreme Court resolutions. If the precedent established by the Supreme Court is maintained regarding the competency of local jurisdiction in crimes against health, then we may assume the federation would decide what would be pursued, who would do it, and how it would be sanctioned. Meanwhile, states would decide whether, how, when, and in which form offenses would be pursued inside their jurisdictions.

After the LNM's approval, Mexican legislation evolved to face the drug and organized crime phenomena. In 2010, the General Law on the Prevention and Punishment of Kidnapping Crimes was approved, and, in 2011, the Migration Act was approved, giving the *Instituto Nacional de Migración* (INM; National Institute of Migration) the faculty to consult and inform national security authorities about individuals who have ties to organized crime. The Code of Military Justice was reformed in 2011 to include sentences for cases in which the military is involved in organized crime or in which military personnel collaborate in organized crime activities. In 2012, the law that establishes the minimum norms on the social rehabilitation of sentenced individuals was also reformed, providing for additional security measures in penitentiary centers when dealing with people who were detained for organized delinquency. A 2012 reform to the Federal Code of Criminal Procedure and to the Federal Criminal Code broadened franchises' and official telecommunications agents' obligations to deliver information to the authorities when petitioned. Finally, also in 2012, the Federal Law for the Protection of Individuals who Intervene in the Criminal Procedure was approved to protect "collaborating witnesses," defined as "individuals who have been members of organized crime and have voluntarily agreed to lend their effective help to the investigating authority."

In sum, Calderón's six-year term included significant changes to the judicial framework that affected drug policy and, especially, the persecution of organized crime. Three trends can be identified. The first is a risky and disturbing one: a new normative framework made the State more prone to repression, giving it additional judicial tools to use greater discretion in investigating and sanctioning crime. In particular, a special regime began broadening government faculties at the expense of citizen rights. These new faculties differentiate the ordinary criminal regime from the exception criminal regime used to persecute organized crime. Second, states were incorporated in the persecution of crimes against health (or drug-related crimes) and were given new faculties to develop prevention and addiction treatment policies according to their needs. This measure entails the risk of involving states in repressive policies, multiplying the opportunities for corruption and citizen abuse. However, the positive side is that it opens an opportunity for states to develop public policies that address their own needs. Finally, in the area of public health, we should highlight—and celebrate—that drug consumption has been distinguished from drug addiction and that harm- and risk-reduction parameters were incorporated in the legal framework. On the other hand, we should also highlight that the design of public policies for drugs was based on scientific evidence. Both for the risks and opportunities sparked by the normative changes implemented during the Calderón administration, this six-year term (2006-2012) was of enormous importance to the future of drug policies, at least from the normative perspective.

<sup>&</sup>lt;sup>58</sup> Which may be translated as "petty drug dealing."

<sup>&</sup>lt;sup>59</sup> According to Article 474 of the LGS, these exceptions are: (i) when the crime is committed in the context of organized crime; (ii) when the narcotic is not included in the table of maximum quantities for personal consumption; (iii) when the Federal Public Ministry is the agency that detects the delinquent; or (iv) when the Federal Public Ministry requests this from the local Public Ministry.

## Ivc. Follow-up on institutional legislative changes of the $\mathit{Ley}$ de $\mathit{Narcomenudeo}^{60}$

In this section, we describe the legislative changes that took place as a follow-up to the implementation of the LNM in each state. The institutional changes authorized since the approval of this law are described both within the local judicial and executive branches as well as in the local courts and attorney's offices that are responsible for processing *narcomenudeo* offenses at the local level.

According to the LNM, states had one year after the law went into effect to take on the necessary normative modifications, and three years to implement them in practice. Even though some states almost immediately reformed their laws, the changes were not implemented until much later.

After the PGR promoted an action of unconstitutionality against the State of Quintana Roo, the Supreme Court pronounced that the time limit for the states to recognize crimes in matters of *narcomenudeo* would be August 21, 2012; nevertheless, by the end of Calderón's term (December 2012), only 23 of the 32 states had carried out the modifications in their criminal legislation<sup>61</sup>.

### TABLE 4. IMPLEMENTED REFORMS BY MATTER OF LAW AND TYPE

Reforms by law type and area	Reforms according to sought effect
1. Organic laws	Laws that empower the local government
a. Organic Law of the Supreme Court of Justice of the Judicial	
Branch of the Federal Entity	
b. Organic Law of the PGJ	
c. Organic Law of Public Ministry/District Attorney General's	
Office	
d. Other	
2. Laws in penal matters	Laws that define and regulate
a. Criminal Code	
b. Criminal Procedures Code	
c. Law on the Execution of Criminal Sanctions and Security	
Measures	
d. Justice Law of Adolescents/Minors	
3. Laws in the area of health	Laws that implement public health policy
a. Health law	
b. Other	
4. Laws in the area of public security	

Source: Developed by the authors (Pérez-Correa and Silva, 2014).

<sup>&</sup>lt;sup>60</sup> The information in this section is sourced from Pérez-Correa and Silva (2014).

 $<sup>^{\</sup>rm 61}$  The last consultation on legislative changes took place January 3, 2013.

Regarding matters related to public health, even fewer states have adapted their regulations to put the reform into practice. In December 2012, only 14 states had carried out legal revisions to comply with health policies. The SSA was charged with designing a national program for the prevention and treatment of drug addiction, and all health service providers must carry out prevention, treatment and addiction-control measures for drug use. With the LNM coming into effect, local governments are responsible for undertaking information and awareness campaigns, providing information, supplying medical treatment to individuals who consume drugs, creating specialized treatment centers for addiction, and providing addiction treatment and rehabilitation aid, among other responsibilities. Nevertheless, these reforms have not been carried out, both because of the lack of resources and infrastructure as well as because of the need to make changes to procedural or substantive laws.

As shown in table 4, the reforms that have been implemented in different states are classified by type, area of legislation, and effect. With this information, an exhaustive analysis was conducted to determine what has been done and what remains to be done at the state level.

Regarding the reforms by type and area of legislation, the changes in basic legislation that give institutions faculties in the field of *narcomenudeo* are analyzed. In the area of criminal legislation, the analysis focuses on changes that enable local law enforcement to pursue crimes in *narcomenudeo*. In terms of health legislation, this section studies legislative changes to introduce addiction prevention and treatment measures; and, finally, the section considers changes in the field of public security. The majority of the reforms took effect in criminal legislations through the modification of Criminal Codes and the Criminal Procedures Code.

As for the analysis of the reforms based on their expected effect, this section focuses on laws that empower local governments: either laws that define and regulate the area of study, or those that implement public health policies. The states that conducted regulation and empowerment changes have greater chances of defining how they will pursue crimes against health (drug-related crimes). Similarly, those states that went beyond promoting regulation and empowerment changes to also implement public policies to address the situation had a greater say in the way in which they address illicit drug consumption.

Among the institutional changes carried out at the state level, the most significant were the Centros de Operación Estratégica (COE; Strategic Operation Centers) and the Drug Courts for Addiction Treatment. Both are key to understanding how the legal framework operates in terms of criminal justice institutions regarding drugs. The COE were created to replace the Unidades Mixtas de Atención al Narcomenudeo (UMAN; Mixed Attention Units for "Petty Drug Dealing") and to address petty drug dealing and addictions. In 2003, the UMAN were created as coordination agencies between the three levels of government (federal, state, and municipal) for the investigation and persecution of crimes against health: the possession, supply, and sale of narcotics in personal doses. The COE, in turn, address petty drug dealing under five guiding principles as determined in the National Strategy for the Fight against Petty Drug Dealing<sup>62</sup>. The main difference between the UMAN and the COE is that the former only attends petty drug dealing offenses, while the latter opens the possibility for the federation to intervene in related crimes "whose incidence places the capacity of local authorities at risk.<sup>63</sup>" In other words, they broaden the field of jurisdiction to any type of crime. Currently, 28 of Mexico's 32 states have established coordination and collaboration contracts with the PGR for the creation and functioning of the COE, but COE have only been established in 12 states<sup>64</sup>. Figures from September 2011 to July 2012 show that 23 percent of crimes against health have been processed through the COE (Presidencia de la República, 2011b). During the same period, 20 percent of the PGR's responses to petty drug dealing took place in coordination with the PGJs and the secretariats of public security, through the COE.

At the national level, only two Courts for Addiction Treatment have opened, both located in the state of Nuevo León. The courts are based on the US drug court model—offering addicted defendants rehabilitation treatment and social reinsertion as an alternative to criminal processes and imprisonment. To enjoy these benefits, cases must meet the following

<sup>&</sup>lt;sup>62</sup> The five axes are petty drug dealing, fighting crime, preventing crime and addictions, directing drug addicts, and creating a citizen observatory. <sup>63</sup> DOF (2010).

<sup>&</sup>lt;sup>64</sup> Information on the number of COEs in operation was requested from all states. States that responded satisfactorily accounted for at least 21 COEs (Chihuahua, Durango, Guerrero, Hidalgo, Michoacán, Morelos, Nuevo León, Oaxaca, Puebla, Quintana Roo, Tamaulipas, and Tlaxcala).

requirements: (i) no opposition from the Public Ministry; (ii) the crime's maximum penalty must not exceed eight years in order to be considered; (iii) the defendant should be a first time offender; (iv) the defendant may not have been conceded the same benefit before; (v) if the benefit is conceded to the defendant, the individual's legal goods must not be placed at risk; and (vi) the measurements and conditions set by the judge must be fulfilled<sup>65</sup>.

The study of state legislation demonstrates that the application of norms with regards to drugs is not uniform. While some states have regulated the field, others have not met the LNM's time limits to make the mandated changes and create the necessary institutions. This means that there is no judicial certainty for individuals who commit drug-related crimes. Similarly, the changes regarding public health have been relegated, suggesting that governments have very little interest in implementing their drug policies through a health perspective.

The COE, on the other hand, may represent a collapse in the division between federal and state jurisdictions. Even though one of the LNM's objectives was to give new powers to local law enforcement, the COE merges federal jurisdiction with local jurisdiction in areas that go beyond drug-related crimes (crimes against health). In other words, the COE can investigate crimes other than *narcomenudeo*, giving the federation more faculties at the local level. This seems to contradict the LNM's intent of limiting federal participation in crimes of lesser importance; nevertheless, given that the COE has only been in operation for a short time, there is little data to assess the volume and type of cases that the COE process. It is not yet possible to determine whether COE work is limited to crimes related to *narcomenudeo*: studies to analyze their performance should be conducted in the future.

### IVD. Applying the law: processing crimes against health $^{66}$

The LNM's approval in 2009 was expected to reduce the number of cases pursued at the federal level, liberating federal resources for the prevention, persecution, and sanctioning of other crimes. The law aimed to charge states with preventing, pursuing, processing, and sanctioning crimes against health. Nevertheless, the data shows that the LNM has not significantly cut the number of federal court cases on crimes against health. In terms of detentions, preliminary investigations, and sentences, crimes against health still constitute a significant share of federal cases.

Individuals detained for crimes against health accounted for 61.5 percent of the total number of detentions within the federal jurisdiction in 2012 (vs. 62.6 percent in 2011). Similarly, crimes against health constitute an important part of the Federal Public Ministries' work. In 2009, with the approval of the narcomenudeo reforms, preliminary investigations for crimes against health accounted for 51.9 percent of the total preliminary investigations in the federal jurisdiction; this figure was cut to 42.5 percent in 2011. However, preliminary investigations filed for crimes against health in the federal jurisdiction increased after the approval of the LNM, going from 47.9 percent in 2009 to 54.6 percent in 2012; nevertheless, only an annual average of 30 percent of preliminary investigations resulted in pressed charges<sup>67</sup>. Even though the decrease in the number of preliminary investigations may allude to a certain improvement in the efficiency of federal law enforcement institutions, the percentage of pressed charges suggests the opposite.

Federal sentences for crimes against health have also increased and still constitute the main component in the total number of issued sentences<sup>68</sup>. The information we obtained from almost all states regarding the processing of crimes against health (30 PGJs and 31 judicial branches) suggests that most states do not

<sup>&</sup>lt;sup>65</sup> Article 231 of the Criminal Procedure Code of the State of Nuevo León.

<sup>&</sup>lt;sup>66</sup> The information from this section is sourced from Pérez-Correa and Meneses (2014).

<sup>67</sup> Information from INFOMEX (https://www.infomex.org.mx)

<sup>&</sup>lt;sup>68</sup> While in 2009, the sentences for crimes against health represented 46.7 percent of the total sentences issued by the federal courts; in 2010 they represented 60.2 percent; and in 2011, 59.38 percent.

have information prior to 2012 and/or chose not to provide us with information on said topic<sup>69</sup>. The gathered information suggests that, given the number of cases related to petty drug dealing (37,214 cases vs. more than a million<sup>70</sup>), local law enforcement is not pursuing crimes against health or is doing so only marginally. In addition, according to SNSP data, from 2004 to September 2012, despite the approval of the LNM, possession and consumption crimes amass a greater number of pre-

liminary investigations initiated by the federal government. Of the total number of federal investigations for crimes against health, the majority were for possession and consumption, representing 68 percent of the total preliminary investigations in 2009 and 71 percent in 2010<sup>71</sup>. Despite the 2009 reform, in most aspects, federal and local authorities continue operating as if there had been no reform.

<sup>&</sup>lt;sup>69</sup> Local attorneys were questioned about the total number of preliminary investigations, individuals detained, and arraignments before a judge for crimes against health falling under petty drug dealing. Furthermore, the local judicial branches in each state were questioned about individuals who were sentenced and processed for crimes against health under petty drug dealing. Only the PGJs of Colima and San Luis Potosí, along with the judicial branches of Jalisco and Querétaro, delivered complete information. In 13 cases, neither the judicial branch nor the PGJs provided information. In the rest of the cases, incomplete information was provided.

<sup>&</sup>lt;sup>70</sup> For these figures, the total number of preliminary investigations, arraignments before a judge, individuals detained, and individuals sentenced are considered.

<sup>&</sup>lt;sup>71</sup> The author's original document does not classify information concerning preliminary investigation by type of criminal conduct for the arraignments before a judge (see Pérez-Correa and Meneses. 2014)

# PART V. Conclusions and recommendations for the current government

This report conducts a preliminary analysis on the results, deficiencies, lessons learned, and successes of Mexico's drug policy during Felipe Calderón's six-year term (2006–2012) in order to provide subsequent governments with recommendations and possible opportunities for improvement. The inputs for this report—including working papers by CIDE professors and research assistants—use data regarding the supply and demand of drugs, as well as analyses on the effects of this policy in the field of human rights, electoral competition, regional economy, and budget allocation. Further, changes in drug policy legislation were analyzed in detail, with an emphasis on the importance of the approval and implementation of the *Ley de Narcomenudeo*. Several conclusions can be drawn from this work:

- There was an imbalance between the fight against drug trafficking and the prevention and treatment of addictions, both in their results and in their programmatic apparatuses, given that policy was inclined towards prohibition.
- 2. Attending the drug problem from a health-based perspective (prevention and attention) fell short, both in terms of institutions and budget.
- 3. Mexico lacks a comprehensive drug policy. Programs have little cohesion and are clearly inclined to prioritize repression. These programs are not designed in a way that can be evaluated, since, in most cases, they lack indicators to measure results, and when they do have indicators, these only measure actions and activities.
- 4. There was a significant increase in the budget for repressive activities among punitive government agencies. This budgetary increase was inefficient according to the parameters that Mexico uses to report its advances to international organizations.
- 5. Because public expenses on drug policy are not codified in the federal budget, expenses lack transparency and are almost impossible to monitor.
- 6. The data to which we have access shows a clear and marked increase in violations of human rights among the agencies in charge of prohibiting drug trafficking.

- 7. Violence negatively impacted the economy in most drug-affected regions and also reduced electoral competition. Moreover, violence also sparked a population exodus from the most violent regions to safer localities.
- The legal changes observed during Calderón's sixyear term tended to erode fundamental rights, centralize criminal policy, and establish an expansive regime of exception, granting greater discretion to the institutions responsible for procuring and administrating justice.
- 9. Upon analyzing Mexican legislation on drug policy, we observed a gap between the changes in legislation and the institutional efforts to implement the law. This point is of extreme importance, especially regarding the LNM. Even though states were given new faculties to handle crimes related to petty drug dealing, in practice, states have not updated their legislation or implemented their changes, so the law cannot be evaluated at the state level. The persecution of crimes against health constitutes an important and growing portion of enforcement and justice-administration efforts. Its main effects are reflected in the saturation of the law enforcement system, the disproportional increase in detainees and preliminary investigations related to drug offenses, and the decrease in law enforcement efficiency.
- 10. The war on drugs saturated and collapsed the law enforcement system. Given the increase in drug-related preliminary investigations after having declared the "war on organized crime," along with the small proportion of investigations that were actually brought to court, we may conclude that the Calderón administration's drug policy has had a counterproductive effect on investigative capacities, thereby saturating the judicial system. This inefficiency has increased impunity in Mexico (Madrazo and Guerrero Alcántara, 2012).

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