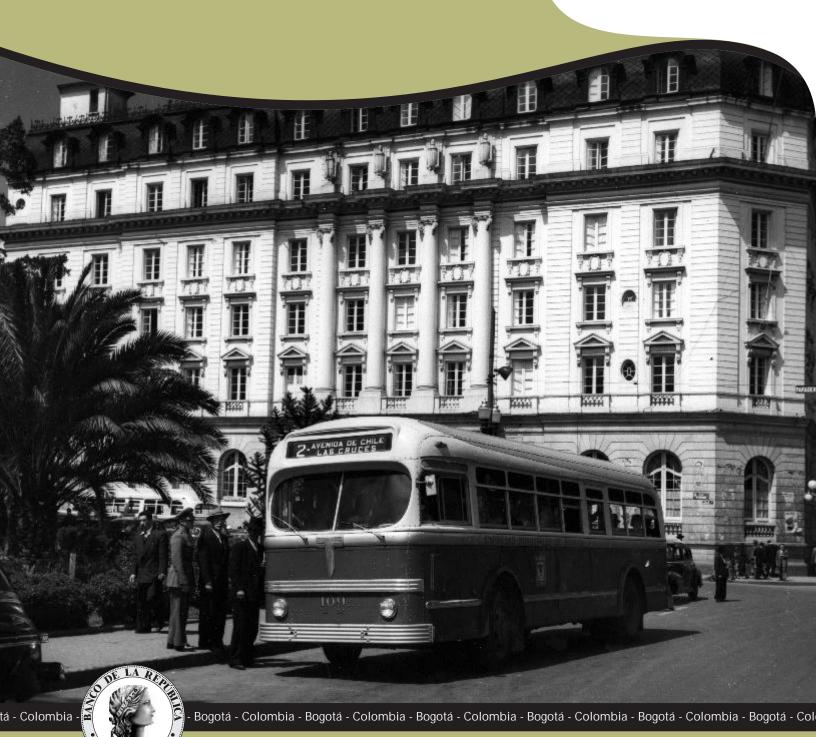
# Borradores de ECONOMÍA

Goals Met or Just Empty Promises? First Version of the Democratic Security Policy in Colombia

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## Goals Met or Just Empty Promises? First Version of the Democratic Security Policy in Colombia\*

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#### Abstract

Exploiting spatial and temporal variations in the number of seizures from criminal organizations, I estimate regional fixed effects models of the increase in the number of properties confiscated on the main crime rates. From 2002 security strategies changed, and as a result, the effects on crime rates are mostly large, negative and significant. There was a clear reduction in crimes commonly committed by organized criminals, including guerrillas, paramilitaries and drug-traffickers, such as auto-theft, terrorism, terrestrial piracy, and kidnappings. In contrast, crimes usually committed by common criminals, such as street robberies and burglaries were unaffected by the new security policy.

**Keywords:** Crime; security policies; regional analysis

**JEL-Classification:** K1, H5, R5

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#### I. Introduction

Pioneering studies since the 1960s, with Becker (1968) as one of the most influential, have focused on understanding criminality and the optimizing behavior behind the offenders' criminal actions. In particular, Becker visualized crime as a lucrative activity that would be reduced with both increasing the police force and reducing offender's economic power.

It is interesting how Becker and then Ehrlich (1974, 1987, 1996), from an optimization point of view confer great importance to punishments in the form of both imprisonment and fines, as instruments to reduce criminal offenses. Even with all these theoretical support there has been scant evidence of the fact that more police reduce crime (Cameron, 1988; Sherman, 1992). Evans and Owens (2007), mention that one of the reasons for the lack of evidence on the relation between these two variables, apart of the typical endogeneity problems, could be the use of cross-sectional data instead of longitudinal data, since part of the police force is determined by the crime level.

Nevertheless, recent terrorist actions around the world have been exploited as exogenous changes for isolating the potential endogenous relationship between police and crime. Di Tella and Schargrodsky (2004) used the terror attack on a Jewish center in the Argentinean capital Buenos Aires in July 1994, after which all Jewish and Muslim centers in the country received permanent police protection. Additionally, Klick and Tabarrock (2005) took advantage of changes in the terror alert level in Washington, D.C., set by the Department of Homeland Security, to establish the deterrence effect of extra security induced during the periods of these alerts.

More recently Draca et al. (2009) used the series of terror attacks carried out in central London in July 2005 to isolate the causal effects of police on crime. These studies showed negative, large and significant effects from increases in police deployment on crime rates. Another study worth mentioning is that of Machin and Marie (2005) who evaluates the performance of the Street Crime Initiative program in England and Wales. The authors also found clear and consistent reductions in crime, robberies specifically, in those areas where

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<sup>&</sup>lt;sup>1</sup> Although the first formal studies on crime started in the mid-1900s, there were already concerns on the issue as early as the eighteenth century with Adam Smith's considerations on criminality and its economic motivations.

the program was put in place, in comparison with areas where no additional security was implemented.

Although there are, in fact, a large number of studies on crime in Colombia, rather less research has been done on the causal effects of crime control policies. Two recent exceptions are worth mentioning for two different programs in Colombia, Angrist and Kugler (2008) and Barón (2008). In the first study the authors analyzed the impact of increasing coca cultivation during the 1990s on labour market outcomes and violence in the rural areas. They found mild economic effects in terms of agricultural production as well as more violence in those regions with previous coca crops.

Barón, found reductions in homicide rates as a result of Plan Colombia (PC) program in the early 2000s, an American-sponsored program to reduce coca cultivation in the country. Nevertheless, these facts suggest that further investigation is needed in order to understand how specific-intended crime control policies really work in a developing country facing a variety of criminal groups such as guerrillas, paramilitaries, and drug-traffickers, apart of the typical urban gangs.

A more recent study carried out by Cortés et *al.* (2011), analised the causal effect of the police presence not on crime but on the conflict in Colombia after the *Democratic Security Policy* (DSP). Conflict is defined as attacks from guerrillas, attacks from paramilitaries, clashes between army and guerrillas, clashes between army and paramilitaries, and the number of civil deaths after the attacks and clashes. They studied the effects of deployment and reinforcements which are identified, in the first case, through the municipalities without permanent police presence before the first deployment in 2003, and in the second case, through those municipalities with presence of police force after the implementation of the DSP. They found that police presence is a necessary but not a sufficient condition to mitigate the intensity of the conflict in Colombia. In particular, they found that deployment and reinforcement of the police force increased the number of attacks from guerillas, but only in cases where these actions were not accompanied by the presence of the army.

In this paper I use the experience of the new security policy in Colombia, the DSP, implemented by the incoming government since 2002, to analyse the impact of taking

specific security measures on crime indicators. Only the first, of the two, President Uribes' four-year presidential term is analyzed.<sup>2</sup> Using data on seizures and crime rates at department level, this paper provides strong evidence supporting the claims that security policies might, in fact, reduce crime. It is worth mentioning that legislative changes appear to have contributed to this outcome. The improvement of the *Extinción del Domino Law* (EDL), and the corresponding increase in the number of seizures taken from criminal organizations, is a clear example.

This paper contributes to the literature by analyzing the effects of a never seen before security policy in the context of a historically violent country. First, it places new emphasis on crime effects for a wide range of crime indicators. The diversity of criminal groups in Colombia allows for the analysis of the problem and its implications across the different types of perpetrators. Second, the level of spatial disaggregation (by departments and by areas of residence for some indicators) is an opportunity to study the problem at a more detailed level, taking account of the regional differences. And finally, the complete database on criminality allows differentiating the results according to a national or local impact, in terms of whether we refer to national criminal organizations or small criminal groups.

Even though the new security policy was a national policy, I am exploiting the disproportionate effects (in terms of the increase in the number of seizures) on departments which, by reasons of weather and soil conditions, politics, or social and economic performance, were points of convergence for criminal activities.<sup>3</sup>

The empirical estimates show how crime was significantly reduced after the implementation of the policy in the high-increase departments relative to the low-increase ones after the implementation of the DSP, especially for those crimes committed by nation-wide criminal organizations compared with illegal activities committed by small criminal groups. In the diff-in-diff setting, an important identification condition is the similar pre-

<sup>2</sup> The reason is to focus the analysis on the initial measures and the corresponding effects of the policy before any change was made.

<sup>3</sup> For the rest of the paper I will refer to 'high-increase' or 'low-increase' to the groups of departments depending on whether or not they had the highest increase in confiscations.

policy trends of the outcome variables. I found, although not for all of them, that most of the outcome variables follow similar trends along the treatment and control groups of departments. Moreover the results seem to be consistent to different specifications, different classification of the departments, and different cut-off points of the policy.

This paper is organised as follows. Section II provides the background on criminal organisations' recent history in the country. Section III describes the Democratic Security Policy and the measures adopted to reduce criminality, and presents the strategy to classify the regions. Section IV describes the empirical strategy as well as a discussion about the potential confounding factors. The results, their interpretation and the corresponding robustness checks are shown in sections V and VI. Section VII presents the summary and conclusions.

#### II. Genesis and Evolution of Modern Criminality in Colombia

Criminality in Colombia passed from being mostly homicides in the rural areas with political motivations in the mid-1940s, to be in the late 1990s a multi-type and multi-actors criminality, in both urban and rural areas and with financial, instead of political purposes (Pardo, 2007, Echandía, 2006).

Before the 1960s, groups of rebels started to operate in the form of guerrillas.<sup>4</sup> Despite the fact that these illegal groups have existed for a long time, it is only from the 1970s and the 1980s when they started to spread throughout the country, with the purpose of diversifying their financial resources and increasing their local influence. For instance, at the beginning of the 1980s, FARC's strategy was to increase its presence in all regions of the country. These aims were rapidly transformed by financial interests, like coca leaf production and smuggling as the most influential in deciding where to locate their fronts of action. Paramilitaries, or self-defense groups, were the third criminal actors contributing to the high levels of violence in the country.<sup>5</sup> Extortions to farmers on the one hand, many of

<sup>&</sup>lt;sup>4</sup> Some of the best known and long-lasting guerrilla groups are *Fuerzas Armadas Revolucionarias de Colombia* (FARC), *Ejército de Liberación Nacional* (ELN), and *Ejército Popular de Liberación* (EPL). These groups are frontally opposed to the government and left wing. These terrorist groups have been involved with economic kidnappings, massacres, drug-trafficking activities, massive attacks to civilian population, and attacks to the economic infrastructure.

<sup>&</sup>lt;sup>5</sup> As early as the 1960s the Army encouraged countrymen to be guardians of their own neighborhoods, although they were never controlled and their expansion was never a state policy (Pardo, 2007).

them forced to sell or abandon their lands, and massacres and targeted killings on the other, were the *modus operandi* of paramilitary groups.

Some years later, there was an exogenous event which would largely deteriorate the already serious security situation in the country. There was a substantial increase in the coca leaf production due to the relocation of the coca crops from Perú and Bolivia to the southeast regions of Colombia. Figure in Appendix A shows the structural change in the coca leaf production in the three countries since 1993. This contributed to a change in criminality, increasing not only the number of victims but also the type of crimes committed, and affecting the cities through a growth in urban crimes such as vehicle thefts, street robbery, burglaries, and thefts against businesses.

Forced displacement was the other collateral damage from the simultaneous coexistence of the three criminal groups. According to the Colombian government, the number of displaced people increased from less than 50,000 on average during the 1990s to more than 440,000 in 2002.<sup>6</sup> The same source indicates that since the official statistics started, there have been more than 3.3 million displaced persons in the country, of which 50% had recognized guerrillas and paramilitaries as the main source of displacement.<sup>7</sup> The massive arrival of this population, most of them poor and with low levels of human capital, forced themselves to locate in the outskirts of the urban areas, making them vulnerable to criminal activities (Echandía, 2006).

At the end of the 1990s, in the middle of President Andrés Pastrana's administration (1998-2002), government and guerrillas agreed to begin dialogues leading to a potential peace treaty. Nevertheless, early in 2002, after the abduction of a domestic commercial flight, the government declared the end of the peace talks. The new President Alvaro Uribe received a country with the highest levels of violence and criminal actions in its history, with more than 1,600 terrorist attacks, 2,500 extortions, 29,000 homicides, and 3,000 kidnappings in 2002 alone. Figure in the Appendix B shows the graphs of the main criminal actions

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<sup>&</sup>lt;sup>6</sup> Intimidation from criminal groups forced all these rural population to sell or to abandon their properties to be taken by guerrillas and paramilitaries for illegal purposes.

<sup>&</sup>lt;sup>7</sup> The data were taken from the *Agencia Presidencial para la Acción Social y la Cooperación Internacional*'s web page <a href="http://www.accionsocial.gov.co/Estadisticas/publicacion%20diciembre%20de%202009.htm">http://www.accionsocial.gov.co/Estadisticas/publicacion%20diciembre%20de%202009.htm</a>, on July the 21<sup>st</sup> 2010.

recorded in the country for the period covering the two mentioned presidential terms, 1998-2006.

Beginning in August 2002 Colombia would face a dramatic reduction in criminality with the DSP adopted by the new government. Even though there was already substantial financial support coming from *Plan Colombia*, it is only with the legislative changes and the new government's commitment and determination that it was possible to break down the steep and increasing trend in most of the organized criminals' activities.<sup>8</sup>

To understand this situation in Colombia, I refer to Becker (1968) who states that the optimal law enforcement, the one reducing the crime within acceptable low levels, depends mainly on the costs of catching and convicting, the nature of the punishment (imprisonment and/or fine), and the reaction of the offenders to changes in the laws. In Colombia, the new government radically improved the last two of these conditions, increasing the rewards to anyone who gives useful information about criminal activities, and more importantly improving the law enforcement for fighting criminal organizations and their financial sources.

My claim in favor of the DSP instead of *Plan Colombia* as such, apart from the obvious structural change observed during 2002-2003 in the number of criminal actions, is that *Plan Colombian* was conceived from the begining to reduce coca leaf production and not specifically to deal with the staggering criminal escalation in the country, as the DSP did. Nevertheless, positive collateral effects from reducing drug production cannot be ignored, since a substantial proportion of the *Plan Colombia*'s financial resources were used for modernization of the military equipment. 10

<sup>&</sup>lt;sup>8</sup> In brief, *Plan Colombia* is a program announced by the Colombian government in 1999 with financial support from the U.S. government since 2000. The main target of the Plan was to reduce the production of illegal drugs (cultivation, processing, and distribution) by 50% in six years, and to improve the security in the country (GAO, 2008). The same source mention that the policy was successful in reducing opium poppy and heroin production in 50%, while coca leaf cultivation increased by 15% between 2000 and 2006.

<sup>&</sup>lt;sup>9</sup> At this respect, even though the original proposal of *Plan Colombia* was a pace seeking program, "... soon became a military strategy aimed at weakening the link between illicit drugs and insurgency" (Avedo et *al.*, 2008, p. 1). The reason is clear since the primary U.S. objective was to reduce the entry of illegal drugs into the United States.

<sup>&</sup>lt;sup>10</sup> A complete analysis of *Plan Colombia* and drug production in the country can be found in Mejía and Restrepo (2008) and Mejía and Posada (2007) with a recent economic analysis, and for the particular interest

#### III. Democratic Security Policy and Classification of Regions

#### 1. The Policy

The DSP was a national policy introduced and implemented by President Álvaro Uribe in August 2002 as part of his four years presidential term. The main purpose of the new security policy was the reduction of the staggering levels of violence in the country (as seen in Appendix B).<sup>11</sup> The main changes carried out by the new government involved new legislation in order to make the laws applicable for fighting criminal organizations and reducing the levels of violence and crime in the country. Essentially, what made the difference in getting positive results, relative to previous governments' attempts, was not only fighting criminal groups militarily but more importantly financially. The new government focused its efforts in tracing and seizing all goods and proceeds coming from organised criminals.

Within the main actions carried out as part of the DSP was the improvement of the *Extinción del Dominio Law* (EDL) over illegally acquired goods and proceeds (Law 333 of 1996). Under this new policy the government was seeking financial and military weakening of criminal groups, and simultaneously the corresponding increase of the government's economic assets. These resources would then be used to increase the police and army forces, and to improve the antiterrorist legislation and reward's system for the apprehension of criminals. In the past, this legislation had modest effects in tracing and seizing financial sources derived from criminal activities, reason for which the new government by means of Decree 1975 of 2002, made some changes over the existing EDL. This legislation has become the cornerstone in fighting criminal organizations.<sup>12</sup>

The following were the main changes affecting the seizures. First, the centralization of the EDL processes in the National Attorney's Office contributed to the speeding up of the confiscation actions. Second, the fact that people under investigation for the possible

of this study, Barón (2008) investigates the potential causal effect of the Plan on the homicide rates in the country.

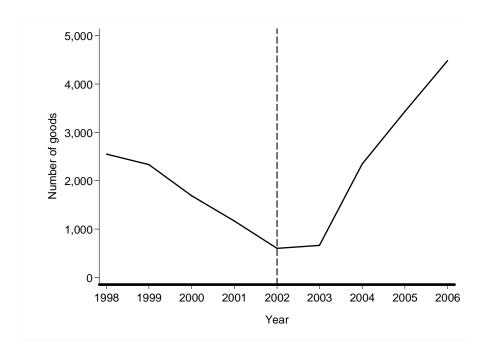
<sup>&</sup>lt;sup>11</sup> At the moment the country was facing an increasing number of terrorist attacks against the national infrastructure, homicides, kidnappings, drug-trafficking, extortion, and forced displacement of the rural population.

population.

12 As recognized by Ehrlich, "a major "efficiency parameter" which affects the production of police and court activity [...] is the *legal environment*..." (Ehrlich, 1987, p. 100).

possession of illegally acquired properties, are no longer allowed to use third party representatives during the legal proceedings, at least at the beginning of the process. The implication of this measure is that, by law, the owners of these properties, most of them prosecuted by the justice, would have to go in person before the district attorney's office, being exposed to be captured by the authorities. According to the legislation, if the owner does not attend within the three months the government is enabled to declare ended the ownership over those properties.

**Figure 1.** Number of properties managed by the Anti-drugs Office, 1998-2006. (Real Estate (Urban and Rural), Vehicles, and Businesses)



Source: Author's calculations based on data from DNE.

Additionally, in order to speed up the EDL, the penal nature of the illegally acquired goods and proceeds was removed. The argument is that previous legislation (Law 333 of 1996) established that only properties under a penal process would be prone to apply the EDL, which had been delaying the seizing actions. Now, under the new legislation, the process is autonomous over the goods and proceeds and does not have to be tied to a long lasting penal nature's crime.

Figure 1 shows how these measures ended up with a steep increase since 2003 in the number of properties managed by the Anti-drugs Office. As can be seen, the number of seizures was not only very low, less than 1,000 properties before 2002, but also showed a sustained downward trend. On the other hand, after a prolonged steep increase since 2003 the number of properties grew up to more than 4,000 in 2006 alone.

#### 2. Classification of Regions

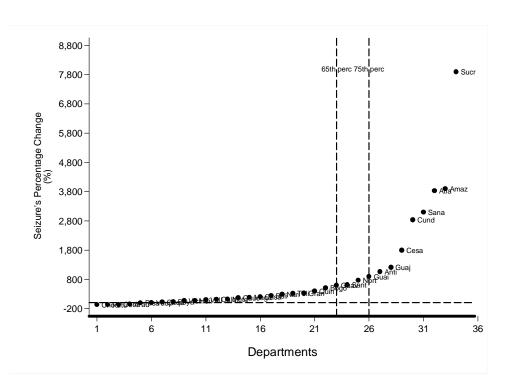
My research strategy exploits the changes generated by the EDL on the number of confiscations from criminal organizations. Specifically, I use data on the number of properties (urban, rural, businesses and vehicles) under control of the Colombian Antidrugs Office over the period 1998-2006 to classify the departments into two groups: first, those with increases in the number of confiscations above the 75th percentile of the distribution, and second those with increases below this threshold. Appendix C shows the spatial distribution under four levels of increase in the number of seizures between 2001 and 2006: zero or negative, low (between 1% and 179%), medium (180% and 899%), and high (more than 900%). Figure 1 shows how the high-increase group of departments seems to be differentiated from the low-increase group.

The high-increase group consists of the following 9 departments: Antioquia, Atlántico, Cesar, Cundinamarca, La Guajira, Sucre, San Andrés, Amazonas y Guainía. And the comparison group consists of the remaining 23 departments and the capital city Bogotá D.C. The argument behind this distinction is that unequal impacts on the policy variable – the increase in the number of confiscations – may produce differential regional effects on crime rates. However, even though the main results used the 75th percentile definition for the high-increase group, additional robustness exercises using the 65th percentile produced consistently similar results.

Additionally, the reason for using this selection method is the belief that there is a threshold from which confiscations will bring about the necessary dissuasive effect to deter offenders to continue committing crimes.<sup>13</sup> This is because properties as well as cash are the main

<sup>&</sup>lt;sup>13</sup> Similar strategies have been used accordingly for cases where national policies instead of regional ones are adopted. See for example Card (1992) in analyzing a national change in the minimum wage in the U.S.A.,

criminals' sources of power that makes it possible not only endowing their military enterprises but also bribery and corruption actions. Without these financial resources illegal businesses are no longer as profitable as before discouraging them to continue committing offenses. This strategy simultaneously goes round the potential problems caused by using the continue count of seizures, since authorities have identified corruption outbreaks within the Anti-drugs Office.



**Figure 2.** Increase in the number of seizures: Percentage increase 2001-2006.

Source: Author's calculations based on data from DNE.

Appendix D shows some descriptive statistics of the confiscations. Column (1) shows the basis for the identification of the treatment and control groups of departments, the percentage increase (2001-2006) in the number of confiscations. As can be seen, the low-increase group reveals a clear smaller expansion than the treatment counterpart, with even zero and negative increases. On the other hand, the treatment group of departments shows increases within the thousands-percentage increases, with the exception of Guainía with 900% increase. The next four columns illustrate the participation of the number of seizures

also Angrist and Kugler (2008) for the case of illegal drugs' production in Colombia, and Barón (2008) who examines the effect of the *Plan Colombia* program on the homicide rates.

according to the type of property in each department. According to these results, along both groups of departments, urban real estate represents by far the highest participation (58% in average) followed by vehicles (22%) and rural estate (13%). In short, there does not seem to be any difference, apart of the percentage increase, between the treatment and control groups of departments.

The other interesting way to see the classification of departments is graphically, through the comparison between the two groups, high and low increase. Appendix E shows the time-series crime rate's graphs by type of department (high and low increase). It is interesting to notice some singular characteristics. First, it is evident the structural change from the beginning of the new security policy in 2002 for most of the crime rates. It is mostly evident in crimes like terrorism, homicides, kidnappings, auto-thefts, and crimes against life, where steep falls were seen after the implementation of the new security policy. Attacks to police stations also showed significant falls but from 2003, while the decrease in the extortions was slightly smoother.

The second issue has to do with the common pre-policy trends for both high and low-increase groups of departments which supports the identification assumption. This condition is particularly evident for thefts against people, terrorism, homicides, attacks to police stations, personal injuries, and crimes against life in both urban and rural areas. The third aspect supporting the present classification of regions is the generalized steeper post-policy reduction in the crime rates for the high-increase group relative to the low-increase group of departments. This is clearer for auto-thefts, terrorism, homicides, kidnappings, attacks to police stations, urban crime against life, and rural crimes against the economic assets. A final result is the fact that, for most of the crimes considered in the analysis, there are clear evidences of a post-policy trends' change, reinforcing even more the identification assumption.

#### IV. Data

The empirical work carried out in this paper used the following data sources. Properties and proceeds from illegal criminal activities come from the Dirección Nacional de Estupefacientes (DNE) (the Colombian Anti-drugs Office). This database includes

properties seized from criminals and managed by the DNE's Division of Assets. Within the information, we can find the geographical location of the property or proceed and the date of the appropriation process. For the purpose of this paper I use four types of seizures from this database: real estate (urban and rural properties), businesses (companies), and vehicles. The total number of goods for the period of study 1998-2006 is 30,834 along the 32 departments and the capital city, from which 58% are urban properties, 13% rural properties, 7% businesses, and 22% vehicles.

Criminal statistics were obtained from the National Police Department. This database contains the record of the main crime types committed in the Colombian territory. The data has the advantage of being not only a long time series but also available for each of the 33 departments. In some cases, for the aggregation of some types of crime, the information is also available by place of residence (urban and rural areas). In particular, two crime aggregations will be considered: first, crimes against life and personal integrity (genocide, murder, personal injuries, abortion, and abandonment of children and disabled people), and second crimes against the economic assets (robbery, extortion, fraud, abuse of confidence, and damage). It is worth mentioning that considering these aggregations does not pretend to get a detailed picture of the individual crimes involved, but taking advantage of the urban and rural disaggregation in order to get a general pattern of what happened across these areas in terms of crimes committed against people and economic assets.

The following is the list of crime types considered in this paper: thefts (vehicles, people, businesses, burglaries), terrorism, extortion, homicides, carjacking, subversion against the police force, personal injuries, kidnappings (by perpetrator), and an aggregation of crimes against life and personal integrity, and crimes against economic assets. The Departamento Administrativo Nacional de Estadísticas (DANE) (the National Department of Statistics) is the main source for population statistics and the GDP per-capita by department. In particular, the last Population Census, carried out in 2005, updated the inter-census time series data. Population statistics were used in this paper for the purpose of building the rates of some of the criminal activities, such as street robbery, extortion, homicides, personal injuries, kidnappings, and the aggregation of crimes against life and personal integrity. For the GDP per-capita by department I had to carry out a joining between two series with

different methodologies, since the new methodology changed from 2000. In particular, I assumed the gap depending on the time, in such a way that the gap disappeared when the old methodology started back in 1990.

Weighting variables for crime rates involving the number of vehicles used the Ministry of Transportation as the main source. Given that crime statistics have a department-year longitudinal structure, I constructed the vehicle stock from a database containing the number of vehicles on the roads per model and per department. In this sense the motor-vehicle theft's rate is given by the number of vehicles stolen per 100,000 vehicles on the roads. A second variable involving vehicles is carjacking. This type of crime, also referred as terrestrial piracy, is mostly committed against cargo vehicles, by reason of which this criminal activity's rate was computed using the number of large vehicles (trucks, dumptrucks, and trailers) instead of the total number of vehicles.

#### V.Empirical Analysis

#### 1. Empirical Strategy

The main purpose of this study is to use the variation in the number of confiscations induced by the DSP, and in particular the changes made on the EDL, as means to identify the impact on crime. Since both high-increase and low-increase groups of departments had similar pre-policy trends in crimes, I will be able to use a fixed effects panel data model with the following general form:

$$\begin{pmatrix} c_{dt} / p_{dt} \end{pmatrix} = \alpha_d + \lambda_t + \delta D_{dst} + \phi X_{dt} + \varepsilon_{dt}, \qquad (1)$$

Let  $c_{dt}$  be crime indicator c for department d in time period t, and let  $p_{dt}$  be population indicator p for department d in time period t.  $c_{dt}$  in this paper will refer to different variables depending on the type of crime to be analyzed. In this sense,  $c_{dt}$  measures (for example) the number of homicides, kidnappings or extortions occurred in a specific department and at a particular year. On the other hand  $p_{dt}$  measures the total number of inhabitants in a specific department and period of time. These two variables together are

used to compute the specific crime rates  $c_{dt}/p_{dt}$  which, in this context are given as the number of victims per 100,000 inhabitants. It is worth mentioning that for crimes involving vehicles instead of people, the denominator corresponds either to the total number of vehicles or the number of cargo vehicles depending on the type of crime.

The individual department fixed effect is captured by  $\alpha_d$  which, by definition, has two parts  $\alpha + A_d^{'}\gamma$ . The first parameter is the intercept, common across the departments, and the second term corresponds to the unobserved individual effects and their coefficients, which are a set of time-invariant covariates affecting the crime rates individually in each department. Additionally, linear trends by type of department are included in the models. <sup>14</sup>

The next term  $D_{dst}$  indicates the departments with increasing confiscations when t=s (s=2003,...2006). The parameter  $\delta$  represents the increasing-confiscations/post-security-policy interaction term. X is a set of time varying controls, and  $\varepsilon_{dt}$  corresponds to the error term. Considering that there is a significant proportion of zeros for most of the crime rates, and in order to take into account heteroskedasticity and the nonlinear conditional expectation, I use count models approach assuming a Poisson distribution of the outcome variables. An additional advantage of this approach is that estimates can be interpreted as semi-elasticities.

In order to explore further the potential effects of the DSP on some types of crime, I follow Angrist and Kugler (2008) and compute yearly interaction terms: the diff-in-diff coefficients interacted with policy years.<sup>15</sup> The reasoning behind this exercise is to explore how the policy behaved year by year to reduce crime since it is natural to think that implementation of new policies, in particular those public policies aimed at deterrence, could take some time for individuals, in this case the offenders, to realise the potential costs

<sup>&</sup>lt;sup>14</sup> In this case the department effect  $\alpha_d$  is replaced by  $\alpha_{0d} + \alpha_{1d}t$ , where the first term corresponds to the department fixed effects, and the second is a trend taking two values for department and control groups. This definition, together with the assumption of unobserved individual effects, leads us to replace  $\alpha_d$  with  $\alpha + A_{0d}^{\dagger}\gamma + \alpha_{1d}t$  for those models including department type's specific time trends.

In this case the specification of the model is as follows:  $\binom{c_{dt}}{p_{dt}} = \alpha_d + \lambda_t + \sum_s \delta_s D_{dst} + \phi X_{dt} + \varepsilon_{dt}$ , where a set, instead of single estimates, are obtained from the estimation.

and benefits of the initiative. Therefore the effects are expected to increase gradually over time, at least during the first post-policy years for most of crimes since, as seen before, crimes returned to the increasing pattern at the very end of the post-policy period.

As described before a key characteristic of the DSP, compared with other security measures, is the fight against financial resources coming from criminal organizations. In this sense, there are at least two mechanisms through which the DSP could help reducing criminal activities. First, the reduction of the economic power implied by confiscations weakens the military capacity and therefore the scope through which offenders are able to commit crimes. Second, is the weakening of criminal networks and their ability to bribe and corrupt. In all cases this implies an increase in operational costs, or the consequent reduction in profits, working as a deterrent for offenders to stop committing crimes.

It is important to remember that, according to the regulations, seizures must be intended not only for security issues but also for social and humanitarian purposes, such as compensation of victims. This is particularly important and is likely to have substantial policy implications for the rural population since most of the criminal activities are carried out in rural areas. In this sense, the increase in seizures may be reflected in an increased quality of life which, in turn, might work as an additional instrument to deter people from committing crimes.

The next question that arises from this discussion, according to the nature of the conflict in Colombia and the potential mechanisms through which the policy might work, is which and to what extent the different crime categories are likely to be affected. The best way to approximate an answer to this matter is to take into account that the policy is expected to have focused the efforts in fighting the three major criminal groups, guerrillas, paramilitaries, and drug-traffickers, and then to expect substantial reductions in criminal activities they used to carry out. Putting them all together we would expect significant effects from the DSP on terrorism, kidnappings, terrestrial priracy, and homicides, activities that are common to the major criminal groups. In terms of the regional scope of the policy, it is difficult to predict any outcome because on the one hand it is expected from rural population to face lower crimes levels since these areas are organized criminals' main

operation centers, and on the other hand, retaliation is also expected as a result of military operations from the government.

#### 2. Potential Confounding Factors

One important consideration in this analysis is dealing with those factors that might distort the effects of the policy on the outcome variables. According to the particular characteristics of the policy and the socioeconomic situation in Colombia, four potential confounding factors were identified. First, the new security strategy, as a national policy, was intended to focus on issues that, even though having effects at local level, make part of wider criminal organizations. In this sense it might be a good idea to control over the department's local efforts for fighting their own criminal problems. Nevertheless, this variable could also be related to the funds needed for the seizures of the DSP to be implemented. Given this, and the fact that preliminary exercises including regional investment in defense resulted not significant, this variable was not included in the final analysis.

A second consideration that might obscure the causal effects of the new security policy on the crime rates is the existence of *Plan Colombia*, conceived in the late 1990s to cut down the coca cultivation in the rural areas. Under this scheme the government has invested huge amounts of money, mostly in military equipment for fighting drug cartels. This possibility is therefore explored by including a variable accounting for the number of hectares of coca cultivation destroyed per department and year to year from 1999 to 2006. The potential consequence of not considering the effects of this program is the overestimation of the DSP on crime reductions. The reason is that military and human resources coming from this program could have had some impact in crime reductions as a side effect.

The third aspect that one might think is a good idea to control for is regional wealth, which could otherwise overestimate the effects from the policy on crime rates. One potential problem is the possibility that this variable might be endogenously related either with the identification variable or with the outcomes which could be even more harmful than beneficial. After exploring simple correlations between the potential wealth variable (GDP)

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<sup>&</sup>lt;sup>16</sup> Control for Plan Colombia, given that this program affected a limited number of departments and a limited number of crimes, was included only in a subset of the crime rates' models.

per capita) with both the identification variable and the outcomes I found no significant correlation between them, around -0.1 and 0.05, respectively. This allow me to include the GDP per capita as an additional control variable.

Finally, the reduction of the 'supply of victims' is an additional aspect usually explored in crime studies. It is clear that a common behavior of the population living in regions affected by violence is the relocation close to more peaceful areas or, in terms of Di Tella and Schargrodsky (2004) and Draca's et al (2009) studies, avoiding commuting through areas where crimes have taken place. In Colombia, in fact, migration and specially forced displacement have been recurrent in regions where the presence of criminal organizations are predominant.

These would be understandable reasons to presume a reduction of potential victims in areas affected by violence, this makes us think of this fact as a reason for the reduction of crimes instead of an outcome from the new security policy. Nevertheless, some particular characteristics, of the country and of the spatial desegregation of the data, make me think that this possibility is unlikely. First, the data shows that most of the relocation caused from forced displacement occurs within the same department, which brings down the possibility of any effect on crime reductions caused from lessenings in the 'supply of victims'. Second, and supporting the previous argument, is the fact that most of the relocation occurs from rural to urban areas, where the highest levels of crime are reported. These reasons, together with the potential endogeneity between displacement and crime rates, lead me to exclude this variable from the analysis.

#### VI. Main Results

It is worth mentioning that the results obtained are closely related to what has been said by Becker (1968). First, the author mentions that crime is an optimality condition constrained to the probability of the offenders to be captured and the size of the punishment, and not necessarily to the efficiency of the police force.<sup>17</sup> In this case, the DSP was not only based on increasing the military resources, but more importantly in improving the existing legislation enforcement. Second, the new security policy in Colombia is intended to reduce

<sup>&</sup>lt;sup>17</sup> The same implication is argued by Ehrlich (1996).

the social loss by increasing compensations to society by means of an increase in the number of seizures.<sup>18</sup>

#### 1. Thefts

Table 1 reports the effects of the security policy on two versions of thefts: robbery (panel A), and burglaries and terrestrial piracy (panel B). Within the definition of robbery three variations are considered: thefts against people (panel A, columns 1 through 3), auto-thefts (columns 4 through 6), and thefts against businesses (columns 7 through 9). The second group in panel B shows the results for burglaries and terrestrial piracy. For each of the subgroups three different specifications were defined: 1. the basic model, 2. a model including type-of-department time trends, and 3. a model including trends and controls for potential confounding factors (GDP per capita and, for the relevant types of crime, Plan Colombia).

Table 1. Effects of the new security policy on theftsA. Robbery on people, vehicles and businesses

					Robbery	/			
Interaction	People			Vehicles			Businesses		
Terms	Basic (1)	+ Trends (2)	+ Controls (3)	Basic (4)	+ Trends (5)	+ Controls (6)	Basic (7)	+ Trends (8)	+ Controls (9)
Interaction terms	0,1 (0.2)	0,2 (0.3)	0,2 (0.3)	-0,4 (0.3)	-0.9* (0.5)	-0.9* (0.5)	0,2 (0.2)	0,1 (0.3)	0,1 (0.3)
Controls Departments (States) Sample Size	No 33 297	No 33 297	Yes 33 297	No 33 288	No 33 288	Yes 33 288	No 33 288	No 33 288	Yes 33 288

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

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<sup>&</sup>lt;sup>18</sup> "Fines have several advantages over punishments: [...] they conserve resources, compensate society as well as punish offenders [...].", Becker (1968, p. 208).

#### **B.** Burglaries and terrestrial piracy

	Other Robberies								
Interaction		Burglaries	Terrestrial Piracy						
Terms	Basic (1)	+ Trends (2)	+ Controls (3)	Basic (4)	+ Trends (5)	+ Controls (6)			
Interaction terms	-0,2 (0.3)	-0,1 (0.2)	-0,2 (0.2)	-1.0** (0.4)	-1.5*** (0.5)	-1.2** (0.5)			
Controls	No	No	Yes	No	No	Yes			
Departments (States)	33	33	33	33	33	33			
Sample Size	297	297	297	252	252	252			

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

Note: The table reports estimates of (higher seizures increase/post-DSP interactions) of a regression using the corresponding crime rate as the dependent variable. Regressions include treatment/control specific time trends as well as the GDP per capita as control for each department's economic circumstances. For robberies against people, business, and burglaries, crime rates were computed per 100,000 people. For vehicles and terrestrial piracy, crime rates were computed per 100,000 vehicles and per 100,000 big vehicles (lorries, ect.), respectively. Standard errors reported in parenthesis are robust to heteroskedasticity.

The estimates show some interesting results in terms of the direction of the effects and the corresponding type of theft. For thefts against people and businesses, and across the three specifications, we can see opposite to expected positive, although not significant effects. Similarly, not significant although negative estimates were found for burglaries. For the remaining auto-thefts and especially for terrestrial piracy, the story is very different since in both cases the policy seems to have caused reductions in those departments with high-increases in seizures relative to those with low-increases after its implementation. In particular, whereas the DSP is associated with a 90 percentage-points decrease in auto-thefts, terrestrial piracy seems to have been reduced in 120 during the after policy period. It is worth mentioning the consistency of the results for which the direction, the magnitude and the significance of the effects remains across the different specifications of the model. Although, auto-thefts and terrestrial piracy are not illegal activities usually carried out by the three well know criminal organizations in Colombia, it is also true that these crimes are committed by well-organized nationwide illegal groups, and therefore all are prone to be affected by the DSP.

My interpretation of these results, is that the new security policy has been successful in fighting nation-wide type of crimes carried out by criminal organizations, but few efforts has been done for reducing urban types of crime like street robbery and burglaries. In fact,

the DSP focused its efforts in fighting major criminal organizations instead of minor urban criminal groups. The rest of this section is exhaustive in showing additional consistent results supporting this argument.

#### 2. Subversion

Three types of subversive actions were analyzed: terrorism, extortion, and attacks to police stations. In order to properly analyze these results it is necessary to take into account some important considerations. Terror attacks and armed intimidation against both police stations and the national infrastructure have been guerrillas' typical actions, especially the blowing up of oil pipelines and electric pylons. As stated in previous sections, extortions, especially against farmers and cattle-ranchers, was guerrillas' regular financial source until the early 1990s, period after which drug-trafficking activities became the primary source.

Column 1 in Table 2 shows indeed a significant decrease in the terrorist actions during the post-policy period in the high-increase departments relative to the low-increase ones. After including time trends and controls there is a slight jump in the coefficient with the estimates still negative and significant, showing a 100 percentage-points reduction in the terror attacks between 2003 and 2006. Regarding extortions, column 6 shows positive effects (about 70 percentage-points increase) during the post-policy period for those departments with high-increases in seizures relative to low-increases.

**Table 2.** Effects of the new security policy on terrorism, extortion and subversion.

Interaction Terms	Terrorism				Extortion			Attacks to Police Stations		
1011110	Basic + Trends + Controls		Basic	Basic + Trends + Controls			Basic + Trends + Controls			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Interaction terms	-0.8***	-1.0***	-1.0***	0,1	0.7***	0.7***	0,3	0,2	0,1	
	(0.3)	(0.3)	(0.3)	(0.4)	(0.2)	(0.2)	(0.7)	(0.6)	(0.6)	
Controls	No	No	Yes	No	No	Yes	No	No	Yes	
Departments (States)	33	33	33	33	33	33	33	33	33	
Sample Size	288	288	288	288	288	288	279	279	279	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

Note: The table reports estimates of (higher seizures increase/ post-DSP interactions) of a regression using the corresponding crime rate as the dependent variable. Regressions include treatment/control specific time trends as well as the GDP per capita as control for each department's economic circumstances. For the tree types of crimes, rates were computed per 100,000 people. Standard errors reported in parenthesis are robust to heteroskedasticity.

This may seem counterintuitive at first sight but making sense after some considerations. First, the policy was particularly focused on fighting big criminal organizations mainly located in the rural areas. And second, guerrillas stopped getting their main financial resources from extortions because of their involvement in drug trafficking activities in the mid-1990s. Then, by fighting guerrillas, paramilitaries and drug traffickers it is not actually expected to abolish extortions because these activities are now being carried out by smaller urban gangs. These results are consistent with the lack of attention of the DSP on urban type of crimes which have maintained their upward trends.

In the case of the attacks to police stations, considering the standard diff-in-diff estimates with just one estimate for the whole post-policy period, there are no significant evidences of any positive or negative effect. Since this crime is directly related to guerrillas mainly, this is an unexpected effect, and therefore an additional extended exercise was carried out in order to explore further the potential effect from the DSP on this crime category.

**Table 3.** Yearly interaction effects of the new security policy on attacks to police stations.

Interaction Terms	Attacks to Police Stations					
Interaction term 2003	0,4					
	(0.8)					
Interaction term 2004	-2.3**					
	(0.9)					
Interaction term 2005	2,3					
	(1.5)					
Interaction term 2006	0,2					
	(1.0)					
Trends	Yes					
Controls	Yes					
Departments (States)	33					
Sample Size	279					

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

Note: The table reports yearly estimates of (higher seizures increase/ post-DSP interactions) of a regression using the corresponding crime rate as the dependent variable. Regressions include treatment/control specific time trends as well as the GDP per capita as control for each department's economic circumstances. Rates were computed as the number of attacks per 100,000 people. Standard errors reported in parenthesis are robust to heteroskedasticity.

To do so, I estimate yearly interaction terms, for each of the post-policy years in order to investigate whether or not the effect remains negligible. Table 3 shows that although the DSP did not have an immediate impact on these actions, in 2004 there seem to be an

important reduction in the number of attacks in regions where the increase in the number of seizures was substantial relative to the rest.

#### 3. Homicides and Personal Injuries

During the recent history, Colombia had one of the highest homicide rates in the world, reaching staggering levels of around 70 victims per 100,000 inhabitants. This, compared with the South American average of about 20, became a matter of great concern for the incoming government in August 2002. Later in 2006, after the completion of the first period of the DSP, the measures adopted by the government resulted in the break of the upward homicides trend, reaching a level of 40 fatalities per 100,000 inhabitants.

**Table 4.** Effects of the new security policy on homicides and personal injuries

Interaction Terms		Homicides		Personal Injuries			
	Basic (1)	+ Trends (2)	+ Controls (3)	Basic (4)	+ Trends (5)	+ Controls (6)	
Interaction terms	-0,2 (0.2)	-0,1 (0.2)	-0,1 (0.2)	-0,01 (0.2)	0.2* (0.1)	0.2* (0.1)	
Controls	No	No	Yes	No	No	Yes	
Departments (States)	33	33	33	33	33	33	
Sample Size	297	297	297	288	288	288	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

Note: The table reports estimates of (higher seizures increase/year interactions) of a regression using the corresponding crime rate as the dependent variable. Regressions include treatment/control specific time trends as well as the GDP per capita as control for each department's economic circumstances. For both, homicides and personal injuries, crime rates were computed per 100,000 people. Standard errors are reported in parenthesis, and were adjusted for department clustering.

Columns 1 through 3 in Table 4 show that, although negative, not significant estimates were found as a consequence of the financial fight against criminal organizations. As for the attacks to police stations, a set of yearly interactions terms was computed for the specifications including trends and controls. Table 5 shows a consistent and increasing negative effect for the whole post-policy period, starting at -0.1 in 2003 and reaching a maximum of -0.6 in 2006. Although it is only significant in 2006, this additional evidence provides some interesting information.<sup>19</sup>

<sup>&</sup>lt;sup>19</sup> It is worth mentioning the fact that, as shown by figure E4 in Appendix E, both high-increase and low-increase groups of departments started to follow different patterns after the turning point in 2002.

**Table 5.** Yearly interaction effects of the new security policy on homicides

Interaction Terms	Homicides
Interaction term 2003	-0,1
	(0.1)
Interaction term 2004	-0,3
	(0.2)
Interaction term 2005	-0,4
	(0.3)
Interaction term 2006	-0.6*
	(0.3)
Trends	Yes
Controls	Yes
Departments (States)	33
Sample Size	297
* p<0.10, ** p<0.05, *** p<	:0.01

Note: The table reports yearly estimates of (higher seizures increase/ post-DSP interactions) of a regression using the corresponding crime rate as the dependent variable. Regressions include treatment/control specific time trends as well as the GDP per capita as control for each department's economic circumstances. Rates were computed as the number of homicides per 100,000 people. Standard errors reported in parenthesis are robust to heteroskedasticity.

The weak evidence of substantial reductions in homicides, as a result of an increase in the number of confiscations, is consistent with the fact that this type of crime unlike other crime categories is not always motivated by economic interests. Additionally, they are often committed by non-organised criminals. <sup>20</sup> The results also reveal that the financial fight against criminal organizations has had a weak effect on homicides. It seems then that even though since the implementation of the DSP there has been a persistent downward trend in the number of homicides, most of it might be the result of the police and army deployment. It is also important to mention that when controlling for Plan Colombia program (table F3, Appendix F), which includes only those regions producing coca leaf, the effects are literally the same, with reductions of around 10 percentage points.

Regarding personal injuries, column 6 in Table 4 shows an unexpected positive effect (20 percentage points) in regions where the increase in seizures was high relative to those where the increase in seizures was low. In order to understand this result, it is important to mention that forced displacement is another consequence from the conflict. At this respect,

Furthermore, as expected, the high-increase group of departments did have a deeper fall in the homicides rate than the comparison group during the same period of time.

<sup>&</sup>lt;sup>20</sup> At this respect, Gaviria (1998, p. 8) argue that "... over 80 percent of all homicides in Colombia are the manifestation of an amorphous violence not directly related to major organizations".

Calderon et *al.* (2011) show evidence on the increase of intra-familial violence for displaced families as a result of frustration feelings due to the lack of opportunities and tough economic situation. This might help to explain part of the increase in personal injuries.

#### 4. Kidnappings

Fighting kidnappings has been a policy of major interest for the government since staggering levels of nearly 4,000 victims per year, at the beginning of the 2000sAn important reduction in this type of crime is expected as a result of the DSP. Table 6 shows the standard diff-in-diff estimates using an aggregation of all perpetrators (panel A), and according to each criminal group: guerrillas, paramilitaries, and common criminals (panel B). Among the strategies of the government for stopping the escalation of violence in the country, specially homicides and kidnappings, several attempts of peace-seeking talks have been carried out in the recent history with both guerrillas, and more recently, with paramilitaries, from which some of them were successful and ended up in the demobilization and handing over of weapons.<sup>21</sup>

**Table 6.** Effects of the new security policy on kidnappings

**A.** All perpetrators

Interaction	All perpetrators						
Terms	Basic (1)	+ Trends (2)	+ Controls (3)				
Interaction terms	-0,1 (0.2)	-1.0** (0.4)	-1.1** (0.5)				
Controls	No	No	Yes				
Departments (States)	33	33	33				
Sample Size	288	288	288				

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

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<sup>&</sup>lt;sup>21</sup> The only organizations for which peace talks successfully ended up in demobilizations were paramilitaries, and then the effects from the increase in seizures is prone to be biased for this particular organization.

**B.** Effects along the different perpetrators

		Guerrillas						Paramilitaries			Other Perpetrators		
Interaction	FARC				ELN								
Terms			+ Controls	Basic		+ Controls			+ Controls		+ Trends		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Interaction terms	0,4 (0.4)	-1.4* (0.8)	-1.5* (0.9)	-0,3 (0.3)	-0.7*** (0.2)	-0.7*** (0.2)	0,3 (0.5)	0,5 (0.7)	0,6 (0.7)	-0,4 (0.3)	-0,2 (0.2)	-0,2 (0.2)	
Controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	
Departments	33	33	33	33	33	33	33	33	33	33	33	33	
Sample Size	279	279	279	243	243	243	261	261	261	279	279	279	

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Note: The table reports estimates of (higher seizures increase/post-DSP interactions) of a regression using the corresponding crime rate as the dependent variable. Regressions include treatment/control specific time trends as well as the GDP per capita as control for each department's economic circumstances. Within 'Other perpetrators' other minor guerrilla groups and common criminals are included. Kidnappings were computed as rates per 100,000 people. Standard errors reported in parenthesis are robust to heteroskedasticity.

As seen in Table 6, panel A, the DSP was successful in reducing the high levels of kidnappings in the country. In fact, the 40 years upward trend of this crime was broken. Column 3 provides evidence of the strong and consistent reduction in kidnappings, about 110 percentage points during the post-policy period. In fact, the number of victims fell from nearly 4,000 per year to levels as low as 678 in just four years. Although these results are very revealing about the success of the security policy in Colombia, even much more interesting is to establish to what extent fighting the different criminal groups contributed to this success.

Historically, guerrillas in particular, have been those with the highest participation in the staggering number of kidnappings in the country. For example, 50% of the 3,713 kidnappings in 2000 were carried out by guerrillas, mainly FARC and ELN, while only 7% were attributed to self-defence groups. Panel B in Table 6 shows generalized negative effects across all perpetrators except for paramilitaries, although not always significant.

A general view of these results lets us see how the security policy contributed to the reduction of guerrillas' kidnappings, committed by both FARC and ELN. Columns 3 and 6 show negative and significant estimates. FARC's kidnappings rate reduced in about 150 percentage points between 2003 and 2006 for those departments where there was a substantial increase in seizures relative to the others. Similarly, but with a smaller effect, ELN's kidnappings showed important reductions of around 70 percentage points for the

whole post-policy period. For paramilitaries, there are no clear evidences of any effect from the new security policy, with positive but not significant estimates across the three specifications. For the rest of perpetrators, column 12 shows negative effects, around -0.2, but not significant in any case.

#### 5. Crimes against Life and Crimes against the Economic Assets

Availability by areas of residence (urban and rural) for an aggregation of crimes let us analyse spatially the effects of the DSP. There are two main groups of crimes considered in this section: crimes against life and personal integrity, and crimes against economic assets. The first group includes crimes such as genocide, murder, personal injuries, abortion, and abandonment of children and disabled people. In the second group are classified actions like robbery, extortion, fraud, abuse of confidence, and damage. According to the previous definitions, it is expected milder effects from the new security policy than in the case of the individual crime categories. The reason stands on the grounds of the aggregation of offenses on the one hand, and in the different measures adopted within the security policy which have had differential effects depending on the area of residence on the other.

 Table 7. Effects of the new security policy on crimes against life and economic assets

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Interaction Terms	_	Urban Are	as	Rural Areas				
	Basic	+ Trends	+ Controls	Basic + Trends + Contro				
	(1)	(2)	(3)	(4)	(5)	(6)		
Interaction terms	0,3 (0.2)	0.2* (0.1)	0.2* (0.1)	-0,2 (0.2)	-0,1 (0.2)	-0,1 (0.2)		
Controls	No	No	Yes	No	No	Yes		
Departments (States)	33	33	33	33	33	33		
Sample Size	297	297	297	288	288	288		

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**B.** Crimes against economic assets

Interaction Terms		Urban Are	as	Rural Areas			
	Basic	+ Trends	+ Controls	Basic	+ Trends	+ Controls	
	(1)	(2)	(3)	(4)	(5)	(6)	
Interaction terms	-0,1	-0.02	0,0	-0,2	-0.5*	-0.5*	
	(0.3)	(0.1)	(0.1)	(0.2)	(0.3)	(0.3)	
Controls	No	No	Yes	No	No	Yes	
Departments (States)	33	33	33	33	33	33	
Sample Size	288	288	288	288	288	288	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

Note: The table reports estimates of (higher seizures increase/post-DSP interactions) of a regression using the corresponding crime rate as the dependent variable. Regressions include treatment/control specific time trends as well as the GDP per capita as control for each department's economic circumstances. Within 'crimes against the life and personal integrity' are included: genocide, murder, abortion, abandonment of children and disabled people, and personal injuries, and were computed as rates per 100,000 people. Within 'crimes against economic assets' are included: robbery, extortion, fraud, abuse of confidence, and damage, and were computed as rates per 100,000 people. Standard errors reported in parenthesis are robust to heteroskedasticity.

For crimes against life and personal integrity, panel A in Table 7, shows the effects of the policy on both urban (columns 1 through 3) and rural areas (column 4 through 6). Columns 3 and 6 show how the effects are only significant and positive for crimes committed in the urban areas. These results are consistent with those found for personal injuries, where this type of crimes seems to have increased as a consequence of the social and economic situation faced mostly by displaced population in urban areas (Calderón et *al.*, 2011). A second potential explanation at this respect, derived from the aggregation problem, is that other crimes involved in the definition of crimes against life (such as abortion, and abandonment of children and disabled people) might have a high weight within this group of crimes obscuring the effects of homicides and personal injuries.

For crimes committed against economic assets, panel B shows opposite results in the sense that the DSP seems to have had the expected negative effects in the rural areas where, although weak, the reduction was of about 50 percentage points in this crime category. These estimates show more conclusive results in terms of both, the direction of the effects and their significance across the different specifications of the model. Nevertheless, once again, these results have to be carefully interpreted since both crimes against life and crimes against economic assets correspond to an aggregation of different and unrelated criminal activities.

#### VII. Robustness Checks

The previous section provided clear evidence regarding the reduction in criminality caused by the new security policy. Although for some types of criminality, especially the urban related ones, the effects seem to be either unclear or not significant, for the rest the effects appear to be consistently negative, high and significant. So far, two different robustness checks have been considered. First, changing the specification of the basic model to a new one including trends, and then another including the GDP per capita. Second, a new set of estimates of models including an additional control for Plan Colombia program, where only a subset of regions is affected.

This section presents further checks to evaluate the validity of these results. In particular, two additional experiments were carried out. First, a change in the starting point of the policy from 2003 to 2002 was introduced. The reasoning behind this idea is that even though the effects of the new security policy started to be evident from 2003, more than a year after the new administration's establishment, both the turning point of most of the crime figures in Colombia, and the official starting point of the new security policy was, in fact, 2002. It is worth mentioning that, unlike many other governmental policies, president Uribe's security policy was put in place just few days after taking office in August 2002. The *Internal Commotion Status* let him take immediate exceptional measures for fighting the high levels of criminality in the country.

The second exercise consisted of changing the cut-off point dividing the high and low-increase groups of departments, going from the 75<sup>th</sup> to 65<sup>th</sup> percentile of departments, which implies adding up three additional departments (Guaviare, Santander, and Norte de Santander).

From the two exercises we expect some changes in the estimates. Moving back the post-policy cut-off point from 2003 to 2002 might imply a reduction in the magnitude of the negative estimates, under the argument that all the measures implemented within certain policy usually take some time to have an effect. With respect to the expansion of the treatment group of departments, it is expected as well a small drop in the estimates since

the addition of departments with not so high increases in seizures might weaken or even reduce the causal effects.

Appendix G, on the one hand, shows the estimates of the increasing-confiscations/post-security-policy interaction terms with both 2002 and 2003 starting policy's points. In general, the estimates show the same direction, and as expected smaller coefficients. It is noticeable the case for terrestrial piracy, kidnappings (all perpetrators and those committed by FARC), homicides (the yearly casual effects, although not presented in the table, was also significant in 2006 with estimates -0.6 and -0.7 for 2003 and 2002 cut-off points, respectively), and for crimes against life committed in urban areas. In all these cases is evident the consistency of the effects. On the other hand, Appendix H shows the results of changing the cut-off point dividing the high and low-increase groups of departments. The coefficients reveal high consistency, especially in cases such as auto-thefts, homicides, extortion, kidnappings, and crimes against economic assets.

#### **VIII. Summary and Conclusions**

The simultaneous coexistence of three criminal organizations in Colombia since the late 1990s, transformed the country into one of the most violent in the world, and one with some of the highest rates of human rights violations. Guerrillas, on the one hand, became the highest contributor to the increasing number of murders, kidnappings, terror attacks, and more recently to the drug trafficking. On the other hand, self-defence illegal armed groups, emerged as a consequence of the former and their persistent criminal acts against farmers and cattle-ranchers, soon started to contribute with mass murders, kidnappings and drug-trafficking. Until then, most of the crimes committed by these two organizations were carried out in the rural context. Nevertheless, the tight connections with a third criminal force, the drug cartels, lead the violence not only to the highest recorded levels in the early 2000s but also to an increase of common criminality in urban scenarios.

From 2002 the new president put in place the strongest security policy in Colombia's recent history, the *Democratic Security Policy*. Although *Plan Colombia* program was already in operation, it was only focused on reducing the number of hectares with coca crops, and not on reducing violence and crime indicators as such. Through the strong and decided security

and legislative changes, it was possible for the new government to fight not only militarily but also economically the main criminal organizations in Colombia.

In order to establish to what extent such important reductions in criminality can be attributed to the new security policy in the country, I made use of a complete database consisting of the properties and proceeds managed by the Colombian Anti-Drugs office. The results obtained show how the *Democratic Security Policy* is connected with most of the crime reductions. Even though most of the popular criminal activities in the urban areas did not seem to be affected, others such as terrestrial piracy, terrorism and kidnappings were largely beaten. All these results make sense since the *Democratic Security Policy* as a national intended policy had focused mainly on the biggest criminal organizations, mostly operating in the rural areas, rather than in the common criminal groups operating in the cities.

However, the findings do not mean that crime rates are low enough, and it will probably take more time to get acceptable low levels, but without any doubt it is clear that the security policy brought about a structural change that split into two the history of criminality in Colombia. The new challenge for the forthcoming governments is to complement and harmonize the national security and social policies with the local governments, especially in the main municipalities and metropolitan areas, where it is evident the worrying increases in crime. It is important to clarify that it does not mean that the same strategies, carried out in rural areas as part of the DSP to fight criminal organizations, should be implemented to fight a different type of crime, urban crimes. However, with the DSP it has been demonstrated that even though military actions is a necessary condition to reduce crime it is not sufficient and must be accompanied by financial fight against criminal organizations.

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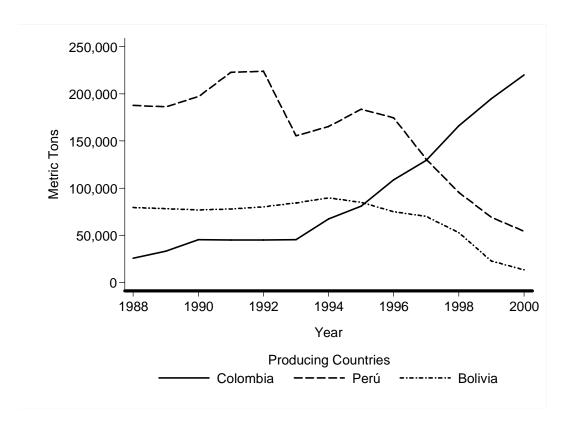
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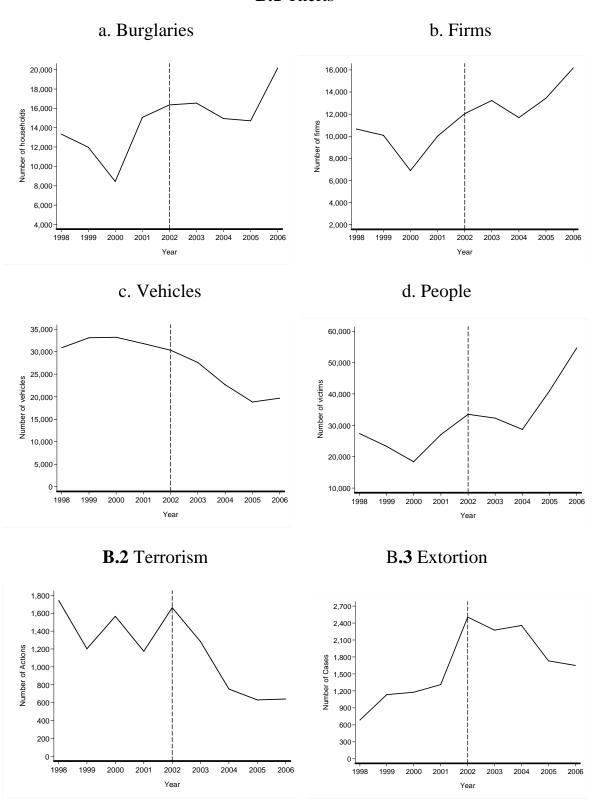
### **APPENDIX**

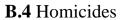
Appendix A. Coca leaf production in Colombia, Perú and Bolivia.



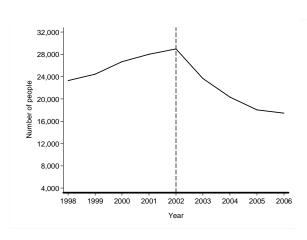
### Appendix B. Time Series of the Main Crimes in Colombia, 1998-2006.

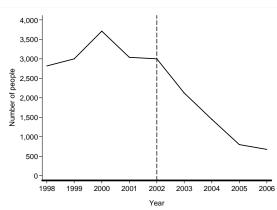
### **B.1** Thefts





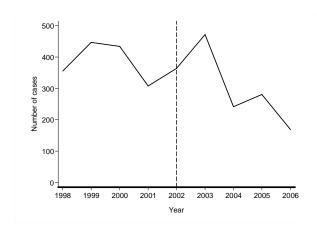
B.5 Kidnappings

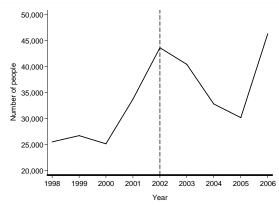




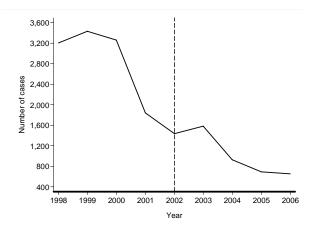
**B.6** Subversion against Police Stations

**B.7** Personal Injuries



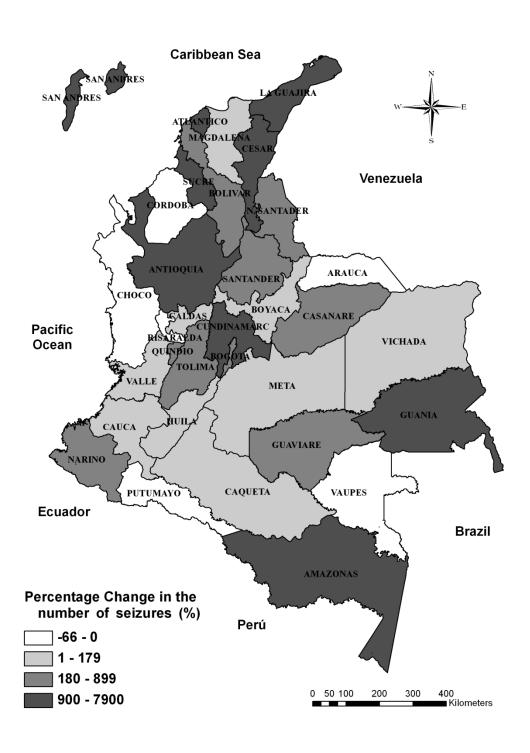


**B.8** Carjacking



Source: National Police Department.

**Appendix C.** Spatial distribution of the increase (2001-2006) in the number of seizures.



Source: Author's calculations based on data from the DNE.

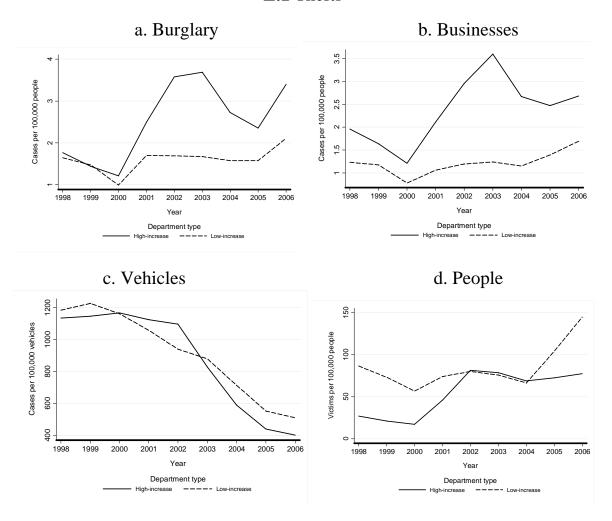
**Appendix D.** Pre and post policy descriptive statistics (High-increase and low-increase departments)

Group type	Department	Seizures					
		Percentage Increase	Participa	f properties			
		(2001-2006)	Urban (%)	Rural (%)	Businesses (%)	Vehicles (%)	
		(1)	(2)	(3)	(4)	(5)	
Low-increase	Arauca	-47%	41,8%	2,5%	19,0%	36,7%	100,0%
group	Bogotá	511%	64,3%	0,3%	9,0%	26,4%	100,0%
	Bolívar	238%	51,2%	17,3%	18,1%	13,4%	100,0%
	Boyacá	38%	4,0%	29,6%	5,4%	61,0%	100,0%
	Caldas	114%	8,2%	50,8%	6,6%	34,4%	100,0%
	Caquetá	27%	7,0%	13,5%	4,2%	75,3%	100,0%
	Casanare	200%	5,7%	28,6%	2,9%	62,9%	100,0%
	Cauca	174%	6,7%	12,0%	3,3%	78,0%	100,0%
	Chocó	-67%	11,1%	66,7%	2,2%	20,0%	100,0%
	Córdoba	-60%	19,7%	47,3%	14,3%	18,7%	100,0%
	Huila	78%	9,0%	3,0%	10,1%	77,9%	100,0%
	Magdalena	179%	57,1%	15,5%	14,4%	13,0%	100,0%
	Meta	123%	12,0%	12,4%	2,1%	73,5%	100,0%
	Nariño	292%	6,4%	20,7%	8,2%	64,6%	100,0%
	N. Santander	765%	34,7%	9,1%	5,9%	50,4%	100,0%
	Putumayo	-61%	0,0%	0,7%	2,2%	97,0%	100,0%
	Quindío	400%	39,3%	41,7%	4,7%	14,2%	100,0%
	Risaralda	-10%	55,4%	20,7%	5,2%	18,7%	100,0%
	Santander	622%	30,1%	7,8%	14,5%	47,6%	100,0%
	Tolima	320%	20,6%	33,2%	9,3%	36,9%	100,0%
	Valle	102%	78,5%	11,8%	4,9%	4,7%	100,0%
	Guaviare	600%	2,0%	4,1%	0,0%	93,9%	100,0%
	Vaupés	0%	0,0%	0,0%	0,0%	0,0%	0,0%
	Vichada	75%	17.6%	5.9%	0.0%	76,5%	100,0%
	All control group	-	58,7%	12,0%	6,8%	22,5%	100,0%
High-increase	Antioquia	1066%	64,9%	12,6%	5,4%	17,1%	100,0%
group	Atlántico	3830%	71,5%	2,0%	14,8%	11,7%	100,0%
	Cesar	1800%	9,4%	2,6%	12,0%	76,1%	100,0%
	Cundinamarca	2842%	17,7%	62,0%	2,2%	18,1%	100,0%
	La Guajira	1217%	9,8%	2,3%	5,3%	82,6%	100,0%
	Sucre	7900%	0,0%	12,5%	16,7%	70,8%	100,0%
	San Andrés	3100%	76,0%	1,7%	12,8%	9,5%	100,0%
	Amazonas	3900%	64,0%	7,2%	15,2%	13,6%	100,0%
	Guainía	900%	0,0%	0,0%	0,0%	100,0%	100,0%
	All treatment group	-	53,0%	18,8%	7,9%	20,3%	100,0%
Agregates	Total	283%	57,8%	13,3%	6,9%	22,0%	100,0%

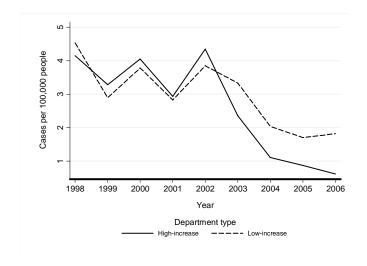
Source: DNE. Note: Population statistics were computed based on the National Census, DANE. The Colombian Anti-drugs Office was the main source of information for seizure's statistics.

# **Appendix E.** Crime Rates – Treatment and Control Groups

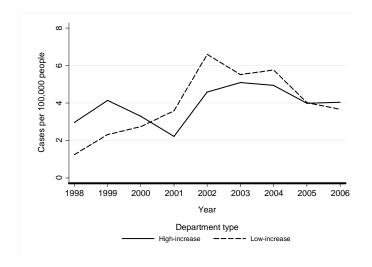
### **E.1** Thefts



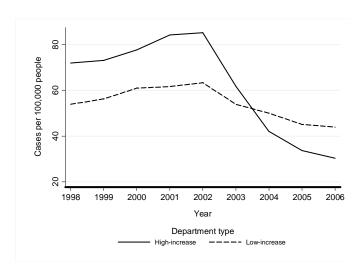
E.2 Terrorism



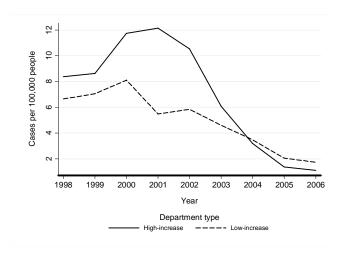
**E.3** Extortion



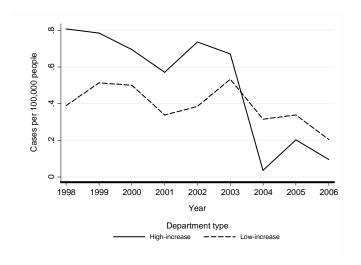
**E.4** Homicides



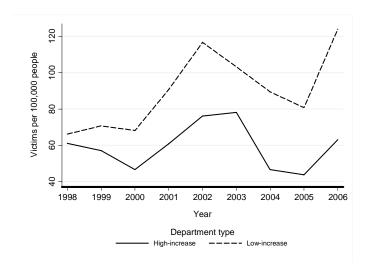
E.5 Kidnappings



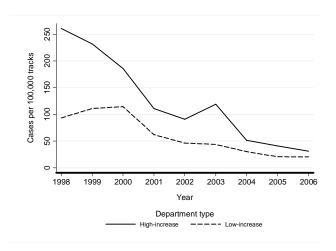
### E.6 Attacks to Police Stations



# E.7 Personal Injuries



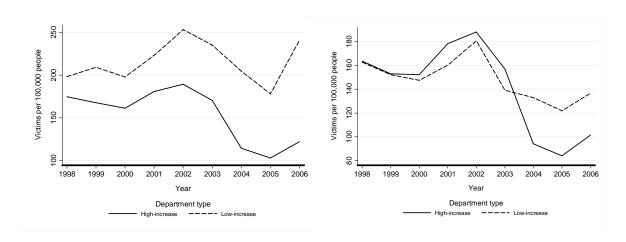
E.8 Carjacking



### E.9 Crimes against Life and Personal Integrity

#### a. Urban Areas

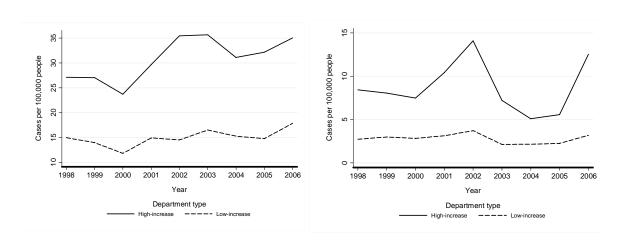
#### b. Rural Areas



E.10 Crimes against Economic Assets

#### a. Urban Areas

#### b. Rural Areas



Note: Rates per 100,000 people were computed for the following crimes: thefts against businesses and people, burglaries, terrorism, extortion, homicides, kidnappings and personal injuries. For attacks to police stations the rates were computed per 1,000,000 people. For auto-thefts rates per 100,000 vehicles were reported, while for terrestrial piracy rates per 100,000 big-vehicles (Lorries, trucks, etc).

**Appendix F.** Effects of the new security policy on different crimes potentially affected by *Plan Colombia* program

(The specification of the model includes controls for each department's economic circumstances (GDP per-capita) and for *Plan Colombia* (coca cultivation)

F1. Terrestrial Piracy

Interaction terms	Terrestrial Piracy (1)
Interaction terms	0.0
Trends	(0.4) Yes
Controls	Yes
Departments (States)	23
Sample Size	138
* p<0.10, ** p<0.05, *** p<	:0.01

<sup>10.10,</sup> p 10.00, p 10.01

**F2.** Subversion

Interaction Terms	Terrorism	Extortion	Attacks to Police Stations
	(1)	(2)	(3)
Interaction terms	-1.3** (0.6)	0.4 (0.3)	-0.6 (0.8)
Trends	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Departments (States)	23	23	23
Sample Size	166	164	166

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**F3.** Homicides

Interaction Terms	Homicides
Interaction terms	0.1 (0.2)
Trends	Yes
Controls	Yes
Departments (States)	23
Sample Size	172
*0 40 **0 05 ***	0.04

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

F4. Kidnappings

	-	Gue	rrillas			
Interaction Terms	All perpetr	FARC	ELN	Paramilitaries	Other perpetrators (4)	
		(1)	(2)	(3)		
Interaction term 2003	0.0	0.4	-1.4***	0.4	0.2	
	(0.4)	(0.7)	(0.5)	(0.7)	(0.3)	
Trends	Yes	Yes	Yes	Yes	Yes	
Controls	Yes	Yes	Yes	Yes	Yes	
<b>Departments (States</b>	23	23	23	23	23	
Sample Size	158	158	136	151	158	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

F5. Regional Analysis

a. Crimes against life and personal integrity b. Crimes against economic assets

Interaction Terms	Urban Areas (1)	Rural Areas (2)	Interaction Terms	Urban Areas (1)	Rural Areas (2)
Interaction terms	0.4**	-0.3	Interaction terms	-0.2	-0.4
	(0.2)	(0.3)		(0.1)	(0.4)
Trends	Yes	Yes	Trends	Yes	Yes
Controls	Yes	Yes	Controls	Yes	Yes
Departments (States)	23	23	Departments (States)	23	23
Sample Size	172	164	Sample Size	164	164

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

Note: The table reports estimates (higher seizures increase/post-DSP interactions) of a regression using the corresponding crime rate as the dependent variable. Regressions include treatment/control specific time trends as well as the GDP per capita as control for each department's economic circumstances, and coca cultivation for *Plan Colombia*. The following departments were not included either because they are not coca leaf producers or for lack of information: Atlántico, Cesar, Huila, Bogotá, Quindío, Risaralda, Sucre, Tolima, Casanare, San Andrés. Definitions of the crimes are the same as the ones in the main results. Standard errors reported in parenthesis are robust to heteroskedasticity.

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Appendix G.** Robustness checks of the causal effects of the Democratic Security Policy on crime rates (Variations for different time starting-points of the policy – Results for the specification without controls on *Plan Colombia* program)

**G1.** Thefts

a. Robbery on people, vehicles and businesses

	Robberies								
Interaction	People		Vehicles		Businesses				
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:			
	2003	2002	2003	2002	2003	2002			
	(1)	(2)	(3)	(4)	(5)	(6)			
Interaction terms	0.2	0.8**	-0.9*	0.1	0.1	0.7***			
	(0.3)	(0.3)	(0.5)	(0.2)	(0.3)	(0.2)			
Controls Departments (States) Sample Size	No	No	No	No	No	No			
	33	33	33	33	33	33			
	297	297	288	288	288	288			

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

## b. Burglaries and terrestrial piracy

	Other Robberies						
Interaction	Burg	laries	Terrestrial Piracy				
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:			
	2003	2002	2003	2002			
	(1)	(2)	(3)	(4)			
Interaction terms	-0.2	0.6**	-1.2**	-1.2*			
	(0.2)	(0.2)	(0.5)	(0.7)			
Controls	No	No	No	No			
Departments (States)	33	33	33	33			
Sample Size	297	297	252	252			

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

### G2. Terrorism, Extortion and Subversion

Interaction	Terrorism		Exto	rtion	Attacks to Police Stations	
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:
	2003	2002	2003	2002	2003	2002
	(1)	(2)	(3)	(4)	(5)	(6)
Interaction terms	-1.0***	0.7	0.7***	-0.3	0.1	-0.2
	(0.3)	(0.6)	(0.2)	(0.3)	(0.6)	(0.7)
Controls	No	No	No	No	No	No
Departments (States)	33	33	33	33	33	33
Sample Size	288	288	288	288	279	279

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

G3. Homicides and Personal Injuries

Interaction	Homi	cides	Personal Injuries		
Terms	Cut-off: 2003 (1)	Cut-off: 2002 (2)	Cut-off: 2003 (3)	Cut-off: 2002 (4)	
Interaction terms	-0.1 (0.2)	0.0 (0.1)	0.2* (0.1)	0.2 (0.3)	
Controls Departments (States)	Yes 33	Yes 33	Yes 33	Yes 33	
Sample Size	297	297	288	288	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**G4.** Kidnappings

	All perp	etrators	Guerrillas			Paramilitaries		Other Perpetrators			
Interaction	, ,		FA	FARC		ELN					
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	
	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Intercation term	-1.1**	-0.6*	-1.5*	-1.6***	-0.7***	0.0	0.6	1.3***	-0.2	-0.0	
	(0.5)	(0.3)	(0.9)	(0.5)	(0.2)	(0.2)	(0.7)	(0.4)	(0.2)	(0.3)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Departments	33	33	33	33	33	33	33	33	33	33	
Sample Size	288	288	279	279	243	243	261	261	279	279	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**G5.** Crimes against the life and personal integrity

Interaction	Urban	Areas	Rural Areas		
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:	
	2003	2002	2003	2002	
	(1)	(2)	(3)	(4)	
Intercation term	0.2* (0.1)	0.3** (0.2)	-0.1 (0.2)	0.2 (0.1)	
Controls Departments (States) Sample Size	Yes	Yes	Yes	Yes	
	33	33	33	33	
	297	297	288	288	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**G6.** Crimes against the economic assets

Interaction	Urban	Areas	Rural Areas		
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:	
	2003	2002	2003	2002	
	(1)	(2)	(3)	(4)	
Intercation term	0.0 (0.1)	0.5** (0.2)	-0.5* (0.3)	0.2 (0.3)	
Controls Departments (States) Sample Size	Yes	Yes	Yes	Yes	
	33	33	33	33	
	288	288	288	288	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Appendix H.** Robustness checks of the causal effects of the Democratic Security Policy on the crime rates (Variations for different cuts of treatment and control groups – Results for the specification without controls on *Plan Colombia* program).

H1. Thefts

a. Robbery on people, vehicles and businesses

	Robberies								
Interaction	People		Vehicles		Businesses				
Terms	Cut-off: 75th perc. (1)	Cut-off: 65th perc. (2)	Cut-off: 75th perc. (3)	Cut-off: 65th perc. (4)	Cut-off: 75th perc. (5)	Cut-off: 65th perc. (6)			
Interaction terms	0.2 (0.3)	-0.0 (0.2)	-0.9* (0.5)	-0.9*** (0.3)	0.1 (0.3)	0.2 (0.2)			
Controls	No	No	No	No	No	No			
Departments (States)	33	33	33	33	33	33			
Sample Size	297	297	288	288	288	288			

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

### b. Burglaries and terrestrial piracy

	Other Robberies						
Interaction	Burg	laries	Terrestrial Piracy				
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:			
	75th perc.	65th perc.	75th perc.	65th perc.			
	(1)	(2)	(3)	(4)			
Interaction terms	-0.2	-0.2	-1.2**	-0.4			
	(0.2)	(0.2)	(0.5)	(0.7)			
Controls	No	No	No	No			
Departments (States)	33	33	33	33			
Sample Size	297	297	252	252			

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**H2.** Terrorism, Extortion and Subversion

Interaction	Terro	Terrorism		Extortion		Attacks to Police Stations	
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	Cut-off:	
	75th perc.	65th perc.	75th perc.	65th perc.	75th perc.	65th perc.	
	(1)	(2)	(3)	(4)	(5)	(6)	
Interaction terms	-1.0***	0.3	0.7***	0.6***	0.1	2.3***	
	(0.3)	(0.6)	(0.2)	(0.2)	(0.6)	(0.9)	
Controls	No	No	No	No	No	No	
Departments (States) Sample Size	33	33	33	33	33	33	
	288	288	288	288	279	279	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**H3.** Homicides and Personal Injuries

	Homi	cides	Personal Injuries		
Interaction	Cut-off:	Cut-off:	Cut-off:	Cut-off:	
	75th perc.	65th perc.	75th perc.	65th perc.	
	(1)	(2)	(3)	(4)	
Interaction terms	-0.1	-0.2	0.2*	0.1	
	(0.2)	(0.1)	(0.1)	(0.1)	
Controls	Yes	Yes	Yes	Yes	
Departments (States)	33	33	33 33		
Sample Size	297	297	288 288		

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**H4.** Kidnappings

				Guei	rillas					
	All perp	etrators	-				Paramilitaries		Other Perpetrators	
Interaction			FA	RC	E	LN				
Terms	Cut-off: 2003 (1)	Cut-off: 2002 (2)	Cut-off: 2003 (3)	Cut-off: 2002 (4)	Cut-off: 2003 (5)	Cut-off: 2002 (6)	Cut-off: 2003 (7)	Cut-off: 2002 (8)	Cut-off: 2003 (9)	Cut-off: 2002 (10)
Intercation term	-1.1** (0.5)	-0.8*** (0.2)	-1.5* (0.9)	-0.6 (0.4)	-0.7*** (0.2)	-0.7*** (0.2)	0.6 (0.7)	0.2 (0.6)	-0.2 (0.2)	-0.1 (0.2)
Controls	Yes									
Departments	33	33	33	33	33	33	33	33	33	33
Sample Size	288	288	279	279	243	243	261	261	279	279

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**H5.** Crimes against the life and personal integrity

Interaction	Urban	Areas	Rural Areas		
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:	
	75th perc.	65th perc.	75th perc.	65th perc.	
	(1)	(2)	(3)	(4)	
Intercation term	0.2*	-0.0	-0.1	-0.1	
	(0.1)	(0.1)	(0.2)	(0.2)	
Controls	Yes	Yes	Yes	Yes	
Departments (States) Sample Size	33	33	33	33	
	297	297	288	288	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01

**H6.** Crimes against economic assets

Interaction	Urban	Areas	Rural Areas		
Terms	Cut-off:	Cut-off:	Cut-off:	Cut-off:	
	75th perc.	65th perc.	75th perc.	65th perc.	
	(1)	(2)	(3)	(4)	
Intercation term	0.0	-0.0	-0.5*	-0.5**	
	(0.1)	(0.1)	(0.3)	(0.3)	
Controls	Yes	Yes	Yes	Yes	
Departments (States)	33	33	33	33	
Sample Size	288	288	288	288	

<sup>\*</sup> p<0.10, \*\* p<0.05, \*\*\* p<0.01