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"Presidential Approval in Hard Times: Mexico's War on Crime"

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Presidential Approval in Hard Times: Mexico's War on Crime[1]

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Abstract

In order to effectively fight criminal organizations, governments require support from significant segments of society. Citizens' support provides important leverage for incumbents, and allows them to continue their policies. Yet, winning the hearts and minds of citizens is not an easy endeavor. Crime affects citizens' most valuable assets: life and property. How citizens translate their public security assessments into presidential approval should partially determine presidential decision-making, and the degree to which citizens may hold the incumbent accountable. Using Mexico as case study, we measure the effects upon approval of three dimensions of public security: crime victimization, performance evaluation, and policy intervention support. We find that public security matters for determining presidential approval; under certain conditions, it matters more than the economy or partisanship. Citizens seem to reward effort more heavily than performance. Crime victimization negatively affects approval, yet the impact is small as compared to other security dimensions.

Keywords: presidential approval, crime, Mexico, war on drugs, crime victimization

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This paper analyzes the impact of citizen assessments of security conditions—in three dimensions, namely direct crime victimization, support for the fight against crime, and performance evaluations—upon presidential approval, and the implications of those citizen assessments on presidential decision-making. Little is known about the impact of public security issues on presidential approval. The bulk of the literature on presidential approval has focused on analyzing the impact of the economy and foreign affairs on executives' job approval.[2]

However, due to the significant increase in crime and violence in many countries around the globe, especially violence related to drug trafficking organizations, which has dramatically affected Latin America (PNUD, 2014; UNDOC, 2012, 2014), the responsibility for public security has shifted away from local governments towards the national sphere of government. In the eyes of citizens and the media, national executives—i.e. presidents—have become the main figures responsible for fighting crime.

Presidents need a significant degree of social support in order to successfully carry out policy interventions on public security. This is because crime and violence are eminently local phenomena. High approval ratings may raise citizen's collaboration in the fight against crime by increasing their role as information providers, and reducing their incentives to covertly help criminals, whether actively or by inaction. A popular president has more leverage to negotiate the support and collaboration of subnational authorities and opposition parties within the legislature, in order to fund and implement her preferred policies.

If national security policy interventions are successful, a virtuous circle may develop: citizens approve of an executive's performance, the legislature and organized groups are induced to support the president as well, support in turn increases the likelihood of the policy's future

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[2] For reviews on the literature on presidential approval see Norpoth, Lewis-Beck, and Lafay (1991), Gronke and Newman (2003), and Berlemann and Enkelmann (2012).

success, which eventually creates additional support for the president. Yet, when citizens disapprove of the implemented policy, things become complicated for an executive. Presidential approval would tend to decrease, reducing incentives for politicians to support the executive, jeopardizing the future success of a national public security policy, leading to further declines in presidential approval.

We study the links between presidential approval and popular assessments of public security in the context of contemporary Mexico. This country presents an excellent setting to explore this relationship due to variation in crime incidence over time, and a sharp change in issue salience. Mexico has been immersed in a serious conflict between the government and organized criminal organizations; and among different criminal organizations. The death toll of this multi-front war has been appalling: from 2006 to 2012, more than 50,000 people died violently in incidents related to organized crime.[3]

We use individual data from two sources: 1) a nationwide survey conducted in Mexico at the peak of the homicide outbreak in the summer of 2011; and 2) survey data from the 2006, 2008, 2010 and 2012 rounds of the Americas Barometer. These data sets allow us to compare the relative effects of the different security dimensions that we examine, including the effect of direct victimization on approval both before and after the government intervention and the subsequent escalation of violence since 2007. We analyze the data using a combination of coarsened exact matching (CEM) (Iacus, King, & Porro, 2012), and logit regression models.

Our contribution to the literature is threefold: first, we have sufficient evidence to demonstrate that perceptions on public safety matter substantively in determining presidential approval and, thus, are likely to have an effect on presidential decision-making. Under the

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[3] Given that a main goal of the paper is to develop theoretical insights on the topic, studying a single case provides more leverage—as compared to a cross-country design—for understanding the mechanics of the different causal relationships that we investigate.

specific conditions we examine, some public security concerns are stronger determinants of approval than the economy or partisanship, the variables that the literature traditionally highlights as the most significant determinants of presidential approval. We provide initial theoretical arguments regarding the mechanics of this relationship.

Second, we find compelling evidence showing that citizens seem to reward effort more heavily than performance. Even if things go terribly wrong regarding the objective conditions of public security, a president's approval may stay within respectable levels, if a majority of citizens support the prevailing policy interventions.

And, third, using a more robust specification than what is found in the existing literature, we find that victimization does indeed affect approval negatively, yet the size of the effect is much smaller than the effect of other security dimensions.

In the following section we present our theoretical arguments regarding the relationship between approval and security. Then, we briefly describe the public security context in Mexico, our case study. Subsequently, we empirically analyze our theoretical arguments. Finally, we discuss the implications of our findings.

Presidential Approval and Public Security

We are interested in explaining what specific areas of public security citizens consider important when evaluating a president's overall performance, and the relative magnitude of these variables. Our theoretical arguments are based upon the extensive existing literature on the economic and foreign affairs determinants of presidential approval.

Typically, only a minority of citizens directly suffers from public insecurity. For instance, the 2012 average victimization rate for all countries in the American continent is 17.3%, according

to data from the Americas Barometer. Lacking direct objective experience with the events means that citizens' assessments on public security, and their translation into presidential approval, are imbued with elements of subjective perception. Politicians, and their opponents, have room to try to influence how people think about the security situation.

This impact is different from that of the economy, yet similar to the case of overseas wars. There is evidence of a close match between economic perceptions and objective indicators (e.g. Nickelsburg & Norpoth, 2000). Direct economic effects are usually widespread across societies. Citizens can directly verify a politician's economic claims when they receive their paycheck, or when they get to the cash register at the supermarket.

For the case of overseas wars, the literature has demonstrated how citizens' opinions can be influenced to some degree by information (Berinsky, 2007; Bullock, Imai, & Shapiro, 2011; Edi & Meirick, 2007). The literature on wars and approval has a long empirical tradition, at least since Cantril (1940), who wrote the first study that documented the public mood towards war in the United States. Further work by Mueller (1973), Kernell (1978), and, later on, Brody (1991) set the bases for this research area.

Given that in overseas wars a majority of citizens are affected only indirectly (mostly by fear), the impact of war related variables are heavily mediated by official discourses (Voeten & Brewer, 2006), the news media (Haider-Markel & Joslyn, 2001; Potter, 1999), and political predispositions, such as ideology or partisanship (Popkin, 1991). All this leaves ample room for persuasion.

Existing work on public security has found that under certain circumstances, citizens' opinions on presidential performance can be influenced by providing new information (Ardanaz,

Corbacho, Ibarrarran, & Ruiz-Vega, 2013; Banerjee, 2012), and by specific issue framing (Romero, Magaloni, & Díaz-Cayeros, 2014).

Presidential Decision-Making

Presidents want to be popular. Hamilton argued as much in The Federalist Papers (The Federalist 76), when he discussed the unipersonal nature of the presidency. In a president's quest for approval, the emphasis on the specific public security dimensions that citizens reward or punish should influence presidential decision-making, at least to a degree. There is sufficient evidence showing a close relationship between presidential decision-making and citizens' preferences and evaluations of the chief executive (e.g. Brody, 1991; Calvo, 2007; Canes-Wrone, 2006; Page & Shapiro, 1992).

For analytical purposes, we focus our investigation on two especially relevant dimensions of public security influencing presidential decision-making: effort and performance. An executive´s choices will be partially determined by how much citizens weight each dimension when deciding whether to approve, or not, a president.

An assessment based on effort considers that citizens reward and punish executives for "trying" to solve the issue at hand; the mere fact that an executive decides to intervene triggers the citizens' response. This dimension compares to Voeten and Brewer's (2006) decision-maker model of accountability, which they apply to the case of the U.S. war in Iraq. In a nutshell, the model states that citizens will approve of the president based upon his policy choices, beginning with the decision of whether to go to war or not. Rally-round-the-flag (RRF) arguments fit into this type of explanations (Brody, 1991; Mueller, 1973).

On the second dimension, a performance-based evaluation implies that citizens evaluate outcomes to determine approval, outcomes both objective, such as victimization, and perceived. This dimension is similar to Voeten and Brewer's (2006) managerial accountability model. In this setting, citizens evaluate the conflict based upon casualties and key events that signal success in a war. Similarly, the performance dimension fits into event-response theories (Berinsky, 2007) that, as in the case of Voeten and Brewer (2006), relate the number and flow of casualties (Burk, 1999; Gartner & Segura, 1998; Mueller, 1973), and the expectations of success in a war (Feaver & Gelpi, 2004; Kull & Ramsay, 2001) to presidential approval.

The issue of clarity of responsibility will also determine the degree to which presidents would care to intervene in issues related to crime and violence. Usually, the responsibility for solving these issues falls into the realm of local politics. It is mayors who usually take responsibility in the eyes of the public for fighting crime (e.g. Arnold & Carnes, 2012; Devroe, 2013; Chevigny, 2003). Yet, we suggest that when insecurity intensifies—either in objective numbers or in the magnitude of media coverage—the issue may tend to escalate to the national executive's realm. As in the case of foreign policy, terrorism, and wars, it is the president who is seen as responsible for a coherent, national strategy (Carlin, Love, & Martínez-Gallardo, 2014).

This is the case in many Latin American countries that have suffered an increasing wave of crime and violence, much of it related to the presence of drug trafficking organizations (PNUD, 2013; UNDOC, 2014).

In the following subsections we will develop our theoretical arguments specific to three security dimensions that we deem to be highly relevant: direct victimization, public support of the specific policy intervention, and performance evaluation.

Direct Victimization

At first glance, we would expect that, *ceteris paribus*, someone who is the direct victim of a crime would be less likely to support the president. There is, after all, sufficient evidence showing that crime victimization negatively affects a victims' trust in government institutions (Ceobanu, Alin, Charles, & Ribeiro, 2011; Corbacho, 2012; Cruz, 2008; Fernandez & Kuenzi, 2010; Perez, 2003), and that victims of crime find government messages less credible (Romero et al., 2014). There is also evidence showing a decrease in political participation due to increases in crime (Ley, 2013; Trelles & Carrera, 2012).

However, the evidence regarding the effects of victimization upon presidential approval is mixed. Rodríguez (2010) reports a negative effect of crime on President Hugo Chavez's approval based on 2008 Americas Barometer data; yet, using 2010 Americas Barometer data, Perez (2013) finds no effect of rising crime levels upon Venezuelan President Hugo Chavez's popularity. Romero (2013) finds no effect of crime victimization on approval for Mexico´s president Calderon in 2010, but he finds a negative effect if someone at the interviewee's household had been the direct victim of a crime. Ley (2013) does not find any effect of victimization on approval for the case of Mexico in 2012, and Bravo (2012) reports a negative effect of crime victimization on presidential approval using Americas Barometer data for a panel of 20 countries in the Americas for 2010.

The impact, or lack thereof, of crime victimization on presidential approval remains an empirical question. If direct crime victimization is not a strong determinant of presidential approval, then presidential accountability is deficient in this respect, since a president would have fewer incentives to work on the issue.

However, there might be some good reasons for citizens not to blame the president for their bad experiences with crime. An issue to consider here is clarity of responsibility. In the case of wars and terrorism, it is relatively straightforward that the responsibility is shared between the legislative and the executive (Iyengar, 1989). Yet, for the case of crime, things are more blurred. Multiple layers of government participate, formally or informally, on its solution. For instance, in many countries, laws assign subnational governments the responsibility to prosecute most crimes, thereby deflecting blame. It would seem that, in the eyes of the public, presidents might only be responsible for public security issues when these are highly salient.

In this paper we explore the effect of victimization upon presidential approval in contexts of moderate and high salience of crime issues.

Support for the Intervention

The second dimension that we explore is support for a policy intervention on public security. A policy intervention may have a value as such (Iyengar, 1989). As in the case of wars, it may be that citizens approve of an executive's performance by the mere fact that she decides to implement a policy that attempts to reduce crime, independently of actual success on the matter.

The literature on inter-state wars and public opinion is a good starting point towards a better theoretical understanding of how support for the policy intervention affects approval ratings.

Mueller (1973) stated that wars increase support for the president at the start of the conflict. Mueller popularized the notion of the RRF effect, which establishes that when a nation is at war, citizens would tend to support the chief executive on the basis of the national interest, regardless of partisan preferences. There is a significant body of literature specifying the circumstances under which we should observe a RRF (Behr, 2006; Brody, 1991; Kernell, 1978; Newman &

Forcehimes, 2010; Voeten & Brewer, 2006). As wars develop, and the body bags returning home increase, public support should tend to erode. The specifics vary. It may be that the war becomes too costly—usually measured in casualties (Mueller, 1973). It may also be that the prospects of winning the war decrease (Gelpi, Feaver, & Reifler, 2006). Or, it may be that the initial reasons that justified going to war in the first place come into question (Eichenberg & Stoll, 2004; Gelpi, Feaver, & Reifler, 2006).

Yet, we should consider that there are specific differences between crime and wars. Typically, interstate wars have an initial date, and they eventually end. Crime, on the other hand, is always present, to a varying degree. In the case of inter-state wars fought overseas—as is the case for the United States where most of the research has been conducted for the RRF—there is the alternative to stop the fight and bring the troops home. In the case of crime, the government cannot stop the conflict as such; it may decide to do nothing, but that will not end criminal activities, and could make the situation even worse. Thus, citizens' will not usually demand that government withdraw, but they may demand a change in strategy. Announcing the beginning of a "war against crime" has a strong rhetorical component that aims at setting the political agenda.

Political predispositions may also influence citizens' positions on government crime fighting interventions, meditating the effect of a potential RRF. In the case of Peru, Arce (2003) finds that subversive actions by the insurgent army Shining Path boosted support for right wing governments, but reduced support for left wing governments.

We contend that policy interventions on public security within contexts of high crime and violence should trigger a response from the public analogous to the RRF effect. If crime relates to issues that threaten a state's life, such as terrorist attacks, then it may be quite straightforward for citizens to rally behind the presidential figure, as representative of the state.

Yet, if the public security problem is caused by criminal organizations that do not aim to overthrown the incumbent government, but to only to make a profit out of preying upon citizens, then a RRF would be triggered under extreme conditions in which citizens actually perceive that they are at war against criminals, and that the president is heading such war in their name.

The mechanism we suggest requires two necessary conditions: first, that public security is a high salience issue in the citizens' agenda, considered as a significant problem that requires urgent attention. Second, that the executive is able to position herself as the "good guy", fighting the "bad guys" (the criminals), on behalf of the population. If these two conditions were met, we would expect that a significant portion of citizens would support the president and her policy intervention, independently of a certain degree of actual performance.

A RRF provides the executive with a base level of approval. If positive support for the intervention weights more heavily upon approval than performance, an incumbent will enjoy a higher base of approval that can make her relatively immune to bad times in the fight against crime.

Performance Evaluation

In addition to possible support for a president's decision to fight crime (or not), citizens will evaluate a government's actual performance regarding public security. This is no different from any other issue in which the government intervenes. However, as compared to other topics, one would expect that citizens would be relatively more sensitive to issues of crime and violence, since they involve their lives and property.

When highly valued assets are at stake, humans tend to distort objective probabilities upwards (Bazerman, 2002). Humans also tend to overstate the incidence of low probability

events, such as the incidence of some crimes. For instance, there is evidence showing how citizens overstate their "objective" probabilities of being victims of terrorist attacks (May et al., 2011), of being victims of low-incidence crimes (Warr, 2000), or of being caught in the crossfire between drug trafficking organizations (Magaloni, Díaz-Cayeros, & Romero, 2012). Therefore, we would expect that citizens would magnify negative security events under a wide variety of conditions.

Our general hypothesis regarding performance is rather straightforward: *ceteris paribus*, as perceptions of public security improve, presidential approval should improve as well.

However, what is more interesting about performance evaluation, at least in terms of presidential decision-making, is its impact upon approval as compared to other public security variables, such as support for the policy intervention and direct victimization. Whether citizens reward or punish incumbents more heavily for performance or for "making an effort" (i.e. support for the policy intervention), should have an impact upon the sort of policies that an executive would choose.

If citizens place a higher value on effort than on performance, it would make sense for an executive to place security as a high salience issue and to increase public communication regarding her activities on the matter. Yet, if citizens place a higher value on performance than on effort, then executives would spend more political resources trying to achieve tangible results, and would increase the salience of the issue only if there is good news to communicate.

Reducing actual crime, and communicating the fact, should positively affect performance evaluations. However, performance evaluations can suddenly improve or worsen in disproportionate ways to small variations in crime. For instance, the capture of a criminal

kingpin may trigger an inordinate improvement in performance evaluations; the kidnapping of a public figure may cause the opposite effect.

In the following sections we empirically verify the arguments stated here regarding the relationship between approval and crime.

The Mexican Case

We briefly describe the Mexican case to provide context for our empirical tests. Mexico is a case that is well suited to study the relationship between approval and security in the context of high crime incidence, and this relationship before and after a bold policy intervention to curb crime and violence.[4]

Responding to an upward trend since the early 2000s, Mexican president Felipe Calderon (2006-2012) declared war on drug trafficking organizations upon his arrival to office in December 2006.

The government's intervention, however, was not as successful as some expected. Homicides skyrocketed from 10 homicides per 100 thousand at the beginning of Calderón's administration in December 2006, to 29 per 100 thousand habitants at the peak of violence in the summer of 2011. Other crimes increased as well. In December 2006, the robbery rate was at 143 per 100 thousand citizens, by the end of the Calderon administration it raised to levels above 200 robberies per 100 thousand inhabitants. It should be noted, however, that high violence was focalized in relatively few localities. Not all citizens have experienced crime and violence directly, or in the same magnitude.

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[4] See Bailey (2014), Guerrero (2013), Osorio (2013), and Ríos (2012) for different narratives and explanations on the Mexican war on drugs.

Yet, despite this chaotic environment, citizens did not seem to punish the president. Calderon's average monthly approval from all published polls was 55%. His average approval in his last year of government was 56%. To contextualize this number, the average approval for all presidents in the Americas in February 2012 was only 39% (as reported by the Americas Barometer).

Given the significant spike in violence during President Calderon's administration, the reasons for his relatively high, stable, levels of approval are not obvious. Our hypothesis regarding president Calderon's relatively high approval rates is that Mexican citizens heavily rewarded the chief executive for waging a highly visible war against criminal organizations, despite the fact that actual performance evaluations were mostly negative.

There are other cases in the literature researching a similar phenomenon, such as Carlin et al. (2014) who studied domestic terrorism. They compare attacks on the civilian population by the Fuerzas Armadas Revolucionarias de Colombia (FARC), during the presidential terms of Andres Pastrana (1998-2002), and Alvaro Uribe (2002-2010). Although the guerilla attacks on the population were quite similar, President Andrés Pastrana's approval shrunk by 12%, but President Álvaro Uribe's popularity was not affected. The authors' explanation rests upon institutional factors experienced by each president: Pastrana faced divided government, and Uribe a unified government. Unified government centralized responsibility on President Uribe, which allowed him to create a RRF effect that provided a solid floor of approval.[5]

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[5] Unfortunately, for the period that we study, 2006-2012, there was no variation on congressional configuration; the Mexican government was divided during the whole period. Yet, as we show in the following section, we find tentative evidence of a RRF as well.

<center>**Empirical Evidence**</center>

To test for our arguments regarding the relationship between approval and crime, we use survey data on Mexico. We found no single survey series that had all the proxies that we deemed necessary for all our study´s dimensions. We required specific questionnaire items to test each dimension and at least two points in time to test for the effects both before and during president Calderón's security policy implementation. Therefore, we use survey data from two different sources: the Americas Barometer[6], and a survey conducted by the Office of the Mexican Presidency in 2011.

In the following subsections we empirically investigate the independent effects upon approval of the three dimensions of inquiry (direct victimization, performance evaluation, and support for the intervention). We analyze the data using CEM and logit regression models.

Direct Victimization

We measure the effect victimization has upon approval by using nationwide survey data from the Americas Barometer at two different points in time: 1) February 2006, before President's Calderón intervention, when the yearly homicide rate was at 8 per 100 thousand habitants, and 2) during the period 2008-2012 using a pooled dataset that uses surveys conducted in 2008, 2010 and 2012, during President Calderón's intervention, when the yearly homicide rate was at 27 per 100 thousand habitants. We decided to use a pooled dataset, as opposed to selecting one of the

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[6] We use the 2006 round, which was conducted before the policy intervention by the Calderon government, and a pooled dataset that includes the 2008, 2010 and 2012 rounds, all of which were conducted during the intervention

available rounds for the period during the intervention, to get a more robust estimation that would minimize any potential bias specific to the time a survey was conducted.[7]

The purpose of this design is to obtain information that compares the impact of victimization upon approval (1) before and during the policy intervention, and (2) relative to performance evaluations on public security.

Specifying a model to estimate the causal effect of crime victimization upon approval at the individual level has two main problems. First, there may be specific social or demographic characteristics that make individuals more likely to be victims of specific crimes, these same variables may also be related to presidential approval, and thereby generating biased estimators.

Second, an individual's assessment of public security is a necessary control variable in the analysis, yet this assessment may well be affected, at least to some degree, by having been victimized. We expect that victims of crime would be less likely to support the incumbent. If this is the case, it will bias the coefficient estimates since victimization is also an independent variable in the model.

To minimize these potential issues, we have combined a variety of methods in a three-step procedure. First, to improve our design in terms of causal inference, we balance our data using CEM. This method reduces the imbalance between the treatment and control groups that are being matched, decreasing model dependence.[8] In our design, the treatment is defined as being the victim of a crime. Ideally, we would like to estimate, on average, how much having been the victim of a crime affects the likelihood of approving of a president in two otherwise identical individuals. Given the available data, this method is our best approximation to our ideal design.

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[7]   Databases, questionnaires and all other documentation are available at http://www.vanderbilt.edu/lapop/survey-data.php.
[8] See Iacus et al. (2012) for a detailed explanation of CEM.

We matched victims and non-victims in sample using CEM on the basis of two demographic characteristics (sex and age), their political predispositions (whether they identified with the presidents' party), and their perception on the country's economy. For the 2006 data, imbalance is reduced in 17.5% from $\mathcal{L} = 0.618$ to $\mathcal{L} = 0.510$. And for the 2008-2012 pooled data, imbalance is reduced in 14.5% from $\mathcal{L} = 0.516$ to $\mathcal{L} = 0.441$.[9]

In the second step, we minimize potential endogeneity issues of our two core independent variables: victimization and performance evaluation on public security. To do so, we instrument a variable that approximates performance evaluation, which has been "cleaned" from crime victimization. This variable is created from the residuals of an OLS regression model that has as dependent variable the performance evaluation on public security, and victimization as independent variable, such that,

$$Security\ performance_i = \beta_0 + (\beta_1 * Victimization_i) + \gamma_i$$
$$\gamma_i = Security\ performance_i - \beta_0 - (\beta_1 * Victimization_i)$$

In which γ_i is our new security performance variable, which we label *SecRes1*.[10]

Finally, in the third step, we specify a logit regression model weighted by the CEM weight, and a set of covariates that controls for the remaining imbalance between the treated (i.e. victims) and control (i.e. non-victims) groups. Given the potential endogeneity problems of including multiple variables approximating different dimensions on the public security, we keep our model as simple as possible. It is specified as follows,

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[9] See the complete CEM output in the On-Line Appendix (http://goo.gl/sFu1Dp).
[10] See the On-Line Appendix for the regression output (http://goo.gl/sFu1Dp).

$$Pr(Approve_i = 1 \mid X) = \exp(Z)/(1 + \exp(Z)) \text{ , in which}$$

$$Z = \beta_0 + \beta_1 * Victim_i + \beta_2 * SecRes1_i + \beta_3 * Eco_i + \beta_4 * Panista_i + \beta_5 * Woman_i + \beta_6$$
$$* Education_i + \beta_7 * Age_i + \mu_i$$

In which μ is the residual of the regression. The 2008-2012 model includes year fixed effects

dummies. *Victim* is a dummy variable indicating whether the individual was the victim of a

crime (the survey question asked individuals if they had been victims of any crime). The

proportions of victims in the samples were 20.4% in 2006 and 22.1% in 2008-2012[11].

SecRes1 is the instrumental variable described above which approximates performance

evaluation on public security. *Eco* approximates the sociotropic assessment of the economy by

the individual. *Panista* indicates whether the interviewee identifies with the president's party, the

National Action Party (PAN). *Woman* indicates the individual's sex. Education measures school

attendance in years. And, the age of the interviewee measured in years, Age.[12]

We replicated the model with identical specifications for 2006 and a pooled dataset

containing the 2008, 2010, and 2012 rounds of the Americas Barometer, except that we include

year fixed effects for the model that uses the pooled dataset. There are no substantive differences

between these rounds of the Americas Barometer: questionnaires, phrasing, and procedures are

alike.

On the bases of the regression model, Table 1 shows the marginal effects of each

independent variable, *ceteris paribus*, when it varies from its minimum to its maximum. We find

that being the victim of a crime significantly decreases the likelihood of approving of the

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[11] There might be some under-reporting in our victimization data for the 2008-2012 period. Official data shows a significant increase on citizens' reporting different types of crimes, such as robbery and auto-theft, beginning in 2007. There may also be a change in the types of crimes that are most frequent. Yet, we cannot verify this since the categories of crimes reported in the different round of the Americas Barometer that we investigate are not comparable, except for the 2010 and 2012 rounds.

[12] See Appendix A for the variables' descriptive statistics and its phrasing in the questionnaire.

president at the two points in time that we investigate: before (2006) and during (2008-2012) the policy intervention. There is no statistical difference between the coefficients. The size of the likelihood reduction is of 9.8% and 7.0% respectively (See the logit regressions output in Appendix B).

Table 1 – Marginal change in the probability of approval (From min to max)

	2006	2008-2012
Victim	-9.8%***	-7.0%***
SecRes1	57.2%***	63.8%***
Eco	25.2%***	15.8%***
Panista	35.3%***	29.8%***
n =	1,146	4,173

Note: Cell entries are differences between model predictions at the minimum and the maximum of each independent variable, *ceteris paribus*. * p < .10; ** p < .05; *** p < .01. The level of significance refers to the coefficients' significance.

Even though being the victim of a crime negatively affects approval, the effect's absolute magnitude is not especially large. Suppose that the entire population of Mexico was the victim of a crime in the period of 2008-2012. In this catastrophic scenario, *ceteris paribus*, president Calderón's approval would have only decreased by 7%. This is a tiny punishment. To compare: Mexico's December 1994 economic crisis plummeted President Ernesto Zedillo's approval by 46% in July 1995, as compared to the last month of president Carlos Salinas, November 1994.[13]

Similarly, the size of the effect of victimization relative to performance evaluation is small. For both periods 2006 and 2008-2012, the effect of victimization is around a fifth of the effect of

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[13] The November 1994 survey conducted by the Office of the Mexican Presidency reported a 77% approval for Salinas, and the *Reforma* newspaper survey of June 1995 reported only 31% approval for Zedillo.

security performance. Table 2 further illustrates the relative effect of these two variables. It shows model predictions on the estimated probability of approving of the president at each combination of victimization and performance evaluation while holding all other variables at their means.

We find a similar pattern for both time points: good perceptions of an executive's performance secure high levels of approval, and she is hardly punished by victims of crime. Individual exposure to crime is less important than general performance perceptions.

At the extreme scenarios—victim and performance evaluation at its minimum, and non-victim and performance evaluation at its maximum—the difference in the probability of approving of a president is enormous (10.9% vs. 78.4% in 2008-2012). This highlights the significant effect that public security performance has upon an individuals' approval of the president.

Table 2 – Model predictions: Likelihood of approving the president

(a) 2006

		Performance evaluation		
		Min (Worst)	Mean	Max (Best)
Victimization	**Victim**	7.8%	21.0%	59.3%
	Non-Victim	12.4%	30.8%	71.0%

Note: Cell entries are model predictions for the combination of values of the independent variables in the axes while holding all other independent variables at their means.

(b) 2008-2012

		Performance evaluation		
		Min (Worst)	Mean	Max (Best)
Victimization	Victim	10.9%	34.6%	72.9%
	Non-Victim	14.2%	41.6%	78.4%

Note: Cell entries are model predictions for the combination of values of the independent variables in the axes while holding all other independent variables at their means.

Suppose that direct victimization approximates traditional pocketbook assessments, and that performance evaluations are sociotropic evaluations; then, a tentative implication of these results may be the following: Regarding public security, both in normal and in bad times, citizens judge an incumbent's performance weighting sociotropic assessments more heavily than pocketbook evaluations. Therefore, accountability would be more based upon the big picture of public security than on individual experiences.

An alternative, although not a mutually exclusive explanation, would be that citizens do not directly consider the president accountable for individual crimes—which are actually not her legal responsibility in Mexico, as in most other nations. However, according to our results, presidents are clearly accountable in the minds of citizens for the overall security situation in the country. This would also provide sufficient incentives for incumbents to attempt to influence citizens' opinions beyond their own personal experiences. Further research should specify the conditions under which victimization matters for determining presidential approval.

Performance Evaluation

For our second dimension of study, performance evaluation, we find significant effects of citizen' assessments of public security upon approval levels. The effects are present both before

and during president Calderón's Policy intervention in late 2006. In February 2006, *ceteris paribus*, there was an average difference of 57.2% in the likelihood of approving President Vicente Fox between someone that completely disapproved of the job he was doing on public security, and someone that fully approved of his performance on security (See Table 1). The difference increased to 63.8% by 2008-2012, which is expected, as the salience of the security issue increased. In both cases, the magnitude is the highest of all the variables in the model.

It is noteworthy that the effect of security upon approval is more than twice the effect of economic performance before the intervention in 2006. And, the relative difference significantly increases during the intervention in 2008-2012 to a fourfold effect of security as compared to the economy (See Table 1). According to these results, citizens weigh security more heavily than they do the economy when they are judging the executive, even when the issue is not as salient, as in 2006. Our results are in line with similar research, which has found that other issues—such as foreign policy (Nickelsburg and Norpoth, 2000) or terrorism (Carlin et al., 2014)—are at least as important as the economy in determining presidential approval.

Note that we do not deem this a general result, context is important. Further research should work on the specific conditions under which one policy domain matters more than the other when explaining presidential approval. Our contribution in this respect is to highlight that security matters.

Support for the Intervention: Effort and RRF

Our third security dimension regards citizens' support for the security intervention. We inquire into its effects upon approval, its relative impact as compared to performance evaluation (i.e. effort vs. performance), and the potential existence of a RRF effect.

We use data from a nationwide face-to-face survey conducted in Mexico during July 2011 (n=2,700).[14] At the time the survey was conducted, violence in Mexico was at its peak.

In terms of our search for a RRF, the timing of the survey sets a tough test; at this time, performance evaluations were highly negative, and the war against organized crime had already lasted four and a half years.

We did not use the Americas Barometer datasets that we used in the previous subsection because they did not have a precise questionnaire item that approximated citizens' support of the government's intervention against organized crime in Mexico. We replicate the regression models presented in the previous subsection as closely as possible, while adding the support for the intervention variable. Since we are interested in citizens' support for a security intervention, we only measure a point in time during which the intervention was taking place.

To approximate citizens' support for the government intervention, we used a questionnaire item that asked citizens if they were for, or against, the government's fight against organized crime.[15]

We follow a two-step design, which is similar to the design in the previous section. In the first step we minimize endogeneity problems caused by a potential causal relationship between victimization and the two security variables that we analyze (support for the intervention and security performance). We suspect that direct experiences with crime will affect citizens' assessments regarding presidential performance, and their support for the intervention. The procedure to generate our instruments is identical to the one described for the case of direct victimization.

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[14] A reduced version dataset containing the variables that we utilize is available upon request to the authors

[15] See Appendix A for the variables' descriptive statistics and its phrasing in the questionnaire.

$$Security\ performance_i = \beta_0 + (\beta_1 * Victimization_i) + \tau_i$$

$$\tau_i = Security\ performance_i - \beta_0 - (\beta_1 * Victimization_i)$$

In which τ_i is our instrumented security performance variable. We label it *SecRes2*. And, for the case of support for the intervention,

$$Support\ for\ the\ intervention_i = \beta_0 + (\beta_1 * Victimization_i) + \omega_i$$

$$\omega_i = Support\ for\ the\ intervention_i - \beta_0 - (\beta_1 * Victimization_i)$$

In which ω_i is our new support for the intervention variable (See Appendix B for the regressions' output). We label it *SecIntRes*.

In the second step, we specify a logit regression model in which presidential approval is the dependent variable. The independent variables are similar to those that we use in the models in Table 1: *Woman*, *Education*, *Age*, *Panista*, and the sociotropic assessment of the economy (*Eco*). Our proxy for security performance changes a bit with respect to the previous models; in this model it is a retrospective assessment of public security, as compared to the previous year. In the previous model, the public security assessment does not state a point of comparison.

Given the characteristics of this survey's sample, the model is weighted to adjust the sample to population parameters by type of locality (urban or non-urban), and the number of homicides related to drug trafficking organizations at the municipal level.

Table 3 shows the marginal change in the likelihood of approving of the president when every variable changes from its minimum to its maximum, while holding everything else constant.[16]

Table 3 – Marginal change in the probability of approval (From min to max), July 2011

Victim	-6.0%*
SegRes2	22.2%***
SegIntRes	42.7%***
Eco	15.1%***
Panista	27.3%***
n =	2,554

Note: Cell entries are differences between model predictions at the minimum and the maximum of each independent variable, *ceteris paribus*. * $p < .10$; ** $p < .05$; *** $p < .01$. The level of significance refers to the coefficients' significance.

The model's results square with the two previous models that we had specified using data from the Americas Barometer for 2006 and 2008-2012.

As in the previous models, the size of the effect of victimization is also significant, and of similar magnitude, yet smaller, in a similar ratio, than the effect of security performance. Likewise, the marginal effect of security performance is bigger than the effect of economic performance, although the size of the difference between these variables differs. Such differences may be caused by the difference in how public security performance is measured in both surveys, by having added the support for the security intervention variable, and by the different timing of the surveys. We see no reason for concern regarding these variations, since the overall picture is basically the same.

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[16] The complete regression output is in Appendix B.

There are many relevant implications of our findings. First, the variable that approximates citizens' support for the security intervention shows tentative evidence of a RRF during a time in which the country suffered from a high incidence of crime and violence. Independently of performance, the likelihood of approving of president Calderón increased on average by 42.7% among citizens who endorsed the government's fight against organized crime as compared to those who did not supported the intervention, while controlling for partisanship.

These results point to a different dynamic behavior of the RRF in public security as compared to interstate wars. For the case of wars, a systematic decrease in the RRF has been documented; RRF effects are usually short-lived. In the case of public security, we find a RRF effect four and half years after the initial policy intervention. There is clearly not a monotonic decrease; but it may be a discontinuous effect as a function of issue salience. The data we use does not allow for further inquiry into the topic. Future research is needed to address this phenomenon; here we provide a first piece of information

Second, as compared to performance, at a moment of high salience of security, citizens give double the weight just to the fact that the government is putting up a fight. Effort, approximated by support of the intervention, seems to be more highly rewarded than the actual result of the intervention. Yet, if citizens do not agree to the intervention, the executive is severely punished. The size of the effect is even bigger than the effect of partisanship, which is usually a significant variable in presidential approval models.

Note that the effort and performance proxies are not as closely related as one may think at a first glance. The levels are quite different: a massive 85% of the population either favors or strongly favors the government intervention against organized crime, yet only 35% of citizens

approve of the incumbent performance on security. The Spearman correlation coefficient between these two variables is significant, but small in magnitude, only 0.18.

Table 4 shows the model predictions for different scenarios of our three public security variables. Note that even if a citizen has been victim the of a crime, and he has the worst possible opinion of the government´s performance on security issues, if that citizen supports the intervention, the executive still has a 53.2% chance of approval by this person (lower-left cell in Table 4a). This can be an excellent scenario for a president. Yet, this strong effect operates both ways. If support for the intervention is at its minimum, then even if an individual has not been the victim of a crime, and that person has an excellent perception of the government's performance on security, the best that a president could hope for is a 36.6% chance of approval (upper-right cell in Table 4b).

Table 4 – Model predictions: Likelihood of approving the president

(a) Victim

		Performance evaluation		
		Min (Worse)	**Mean**	**Max (Better)**
	Min (No support)	15.1%	20.9%	31.1%
Intervention Support	**Mean**	43.7%	53.5%	66.4%
	Max (Full support)	53.2%	62.7%	74.3%

Note: Cell entries are model predictions for the combination of values of the independent variables in the axes while holding all other independent variables at their means.

(b) Non-Victim

		Performance evaluation		
		Min (Worse)	**Mean**	**Max (Better)**
Intervention Support	**Min (No support)**	18.5%	25.2%	36.6%
	Mean	49.8%	59.5%	71.6%
	Max (Full support)	59.2%	68.2%	78.7%

Note: Cell entries are model predictions for the combination of values of the independent variables in the axes while holding all other independent variables at their means.

Under this particular context, a President that does not have at least an average level of support for her security intervention cannot realistically aspire to high approval levels. Furthermore, if there were very low support for the policy intervention, then an executive's approval ratings would necessarily diminish.

Conclusions

Our aim had been to analyze how different dimensions of public security affect a citizen's approval of the chief executive. In this paper, we have developed theoretical arguments and evaluated empirical evidence in order to achieve this. We are particularly interested in the implications of our findings on presidential decision-making and accountability. Given the recent wave of crime and violence in many nations all over the world, this is a key issue to understand.

Our evidence shows that public security matters when attempting to explain presidential approval. In the context that we investigate, security issues weight in citizens' minds heavier than partisanship, or even the economy, when determining presidential approval. Overall, this is

a good scenario for accountability, since it induces incumbents to work on the critical issue. However, as we state below when we discuss presidential decision making, accountability is limited by a possibly perverse incentive structure.

We also found that, even at the peak of violence in Mexico in 2011, there was strong support for President Calderon´s security intervention. This is tentative evidence of a RRF effect on public security issues. It, however, follows a different dynamic than the traditional RRF that has been documented for the case of interstate wars.

We find that the impact upon approval of having directly been the victim of crime is substantively small, especially as compared to support for the intervention, and performance evaluation. We have used a more robust specification than existing work in the literature.

In terms of presidential decision-making, our results imply a structure of incentives in which presidents would be more inclined to invest political capital and money to conduct actions that empathize their effort and their willingness to fight crime, instead of focusing on curbing crime. In a sense, presidents would be more inclined to work more on managing public opinion than on delivering actual results. If effort is valued above performance, there are incentives for "grand gestures" and short-term, but high impact, actions—such as the arrest of famous drug lords—rather than low profile policies to curb crime and violence—such as work to improve communities' social capital. This is clearly not optimal from a citizen's point of view, as it limits accountability. Tragically, citizens involuntarily may induce this sort of result by providing a president with the wrong incentives.

REFERENCES

Arce, M. (2003). Political violence and presidential approval in Peru. *The Journal of Politics, 65*(2), 572-583.

Ardanaz, M., Corbano, A., Ibarraran, P., & Ruiz-Vega, M. (2013). *Mind the gap: Bridging perception and reality with crime information*. Unpublished manuscript.

Arnold, R. D. & Carnes, N. (2012). Holding mayors accountable: New York's executives from Koch to Bloomberg. *American Journal of Political Science, 56*(4), 949-963.

Bailey, J. (2014). *The Politics of crime in Mexico: Democratic governance in a security trap*. Boulder, CO: First Forum Press.

Banerjee, A., Duflo, E., Keniston, D., & Singh, N. (2012). *Making police reform real: The Rajasthan experiment*. Unpublished manuscript.

Bazerman, M. H. (2002). *Judgment in managerial decision making*. New York: John Wiley & Sons, Inc.

Behr, J. G. (2006). Modeling the rally event in presidential politics: Toward conceptual and methodological clarity. *The Social Science Journal, 43*, 701–716.

Berinsky, A. J. (2007). Assuming the costs of war: Events, elites, and American public support for military conflict. *The Journal of Politics, 69*(4), 975-997.

Berlemann, M., & Enkelmann, S. (2012). *The economic determinants of U.S. presidential approval. A survey*. Unpublished manuscript.

Bravo, J. (2012). *Credit where credit is due? Remittances, economic assessments, and presidential approval in Latin America*. Unpublished manuscript.

Brody, R. A. (1991). *Assessing the president: The media, elite opinion, and public support*. Stanford, CA: Stanford University Press.

Bullock, W., Imai, K., & Shapiro, J. N. (2011). Statistical analysis of endorsement experiments: Measuring support for militant groups in Pakistan. *Political Analysis, 19*(4), 363-384.

Burk, J. (1999). Public support for peacekeeping in Lebanon and Somalia: Assessing the casualties hypothesis. *Political Science Quarterly, 114*, 53–78.

Calvo, E. (2007). The Responsive legislature: Public opinion and law making in a highly disciplined legislature. *British Journal of Political Science, 37*(2), 263-280.

Canes-Wrone, B. (2006). *Who leads whom? Presidents, policy, and the public.* Chicago, Ill: The University of Chicago Press.

Cantril, H. (1940). America faces the war: A study in public opinion. *Public Opinion Quarterly, 4*(3), 387-407.

Carlin, R. E., Martinez-Gallardo, C., & Love, G. (2014). Security, clarity of responsibility, and presidential approval. Unpublished manuscript.

Ceobanu, A. M., Wood, C. H., & Ribeiro, L. (2011). Crime victimization and public support for democracy: Evidence from Latin America. *International Journal of Public Opinion Research, 23*(1), 56-78.

Chevigny, P. (2003). The populism of fear: Politics of crime in the Americas. *Punishment & Society,* 5-77.

Corbacho, A., Philipp, J., & Ruiz-Vega, M. (2012). Crime and erosion of trust. Evidence for Latin America. Unpublished manuscript.

Cruz, J. M. (2008). The impact of violent crime on the political culture of Latin America: The special case of Central America. In M. A. Seligson (Ed.), *Challenges to democracy in Latin America and the Caribbean: Evidence from the Americas barometer 2006-07* (pp. 219 – 243). Nashville: USAID and Vanderbilt University.

Devroe, E. (2013). Local political leadership and the governance of urban security in Belgium and the Netherlands. *European Journal of Criminology, 10*, 314-325.

Edi, J. A. & Meirick, P. C. (2007). Wanted, dead or alive: Media frames, frame adoption, and support for the war in Afghanistan. *Journal of Communication, 57*, 119–141.

Eichenberg, R. C., & Stoll, R. J. (2004). *The Political fortunes of war: Iraq and the domestic standing of President George W. Bush.* London, England: The Foreign Policy Centre.

Feaver, P., & Gelpi, C. (2004). *Choosing your battles: American civil-military relations and the use of force.* Princeton, NJ: Princeton University Press.

Fernandez, K. E., & Kuenzi, M. (2010). Crime and support for democracy in Africa and Latin America. *Political Studies, 58*, 450–471.

Gartner, S. S., & Segura, G. M. (1998). War, casualties, and public opinion. *Journal of Conflict Resolution, 42*, 278–300.

Gelpi, C., Feaver, P. D., & Reifler, J. (2006). Success matters: Casualty sensitivity and the war in Iraq. *International Security, 30*(3), 7–46.

Gronke, P. & Newman, B. (2003). FDR to Clinton, Mueller to ? A field essay on presidential approval. *Political Research Quarterly, 56*(4), 501–12.

Guerrero, E. (2013). Towards a transformation of Mexico's security strategy. *The RUSI Journal, 158*(3), 6-12.

Haider-Markel, D. P., & Joslyn, M. R. (2001). Gun policy, opinion, tragedy, and blame attribution. *The Journal of Politics, 63*(2), 520–543.

Hamilton, A. (1788). Federalist No. 76: "The Appointing Power of the Executive." New York Packet, February 8, 1788. Retrieved from http://thomas.loc.gov/home/histdox/fed_76.html.

Iacus, S. M., King, G., & Porro, G. (2012). Causal inference without balance checking: Coarsened exact matching. *Political Analysis, 20*(1), 1-24.

Iyengar, S. (1989). How citizens think about national issues: A matter of responsibility. *American Journal of Political Science, 33*(4), 878-900.

Kernell, S. (1978). Explaining presidential popularity. How ad hoc theorizing, misplaced emphasis, and insufficient care in measuring one's variables refuted common sense and led conventional wisdom down the path of anomalies. *American Political Science Review, 72*, 506–22.

Kull, S., Ramsay, C., & Lewis, E. (2004). Misperceptions, the media, and the Iraq war. *Political Science Quarterly, 118*(4), 569-98.

Ley, S. (2013). Electoral accountability in the midst of violence: Evidence from Mexico. Unpublished manuscript.

Magaloni, B., Díaz-Cayeros, A., & Romero, V. (2012). La raíz del miedo: Percepción de riesgo y tasas de victimización. In Aguilar, J. A. (Ed.) *Las bases sociales del crimen organizado y la violencia en México* (pp. 187 – 219). Mexico City, Mexico: Secretaría de Seguridad Pública.

May, D., Herbert, J., Cline, K., & Nellis, A. (2011). Predictors of fear and risk of terrorism in a rural state. *International Journal of Rural Criminology, 1*(1), 1-22.

Mueller, J. E. (1973). *War, presidents and public opinion*. New York: Wiley.

Newman, B., & Forcehimes, A. (2010). Rally round the flag' events for presidential approval research. *Electoral Studies,* 29, 144-154.

Nickelsburg, M., & Norpoth, H. (2000). Commander-in-chief or chief economist? The president in the eye of the public. *Electoral Studies, 19,* 313–332.

Norpoth, H., Lewis-Beck, M. S., & Lafay, J. D. (Eds.). (1991). *Economics and politics. The calculus of support*. Ann Arbor: University of Michigan Press.

Osorio, J. (2013). Democratization and drug violence in Mexico. Unpublished manuscript.

Page, B. I., & Shapiro, R. Y. (1992). *The rational public. Fifty years of trends in Americans' policy preferences.* Chicago: The University of Chicago Press.

Perez, O. J. (2003). Democratic legitimacy and public insecurity: Crime and democracy in El Salvador and Guatemala. *Political Science Quarterly, 118*(4), 627-644.

Perez, O. J. (2013). The basis of support for Hugo Chavez: Measuring the determinants of presidential job approval in Venezuela. *The Latin Americanist*, *57*(2), 59-84.

Programa de las Naciones Unidas para el Desarrollo. (2014). *Informe regional de desarrollo humano 2013-2014. Seguridad ciudadana con rostro humano: Diagnóstico y propuestas para América Latina*. New York: Programa de las Naciones Unidas para el Desarrollo.

Popkin, S. L. (1991). *The Reasoning voter: Communication and persuasion in presidential campaigns.* Chicago: University of Chicago Press.

Potter, W. J. (1999). *On media violence*. Thousand Oaks, CA: Sage.

Rios, V. (2012). *How government structure encourages criminal violence: The causes of Mexico's drug war* (Doctoral dissertation). Harvard University.

Rodríguez, M. (2010). The effect of perceptions of crime and economic well-being on Chávez's popularity. Unpublished manuscript.

Romero, V. (2013). Impacto de los temas de seguridad pública en aprobación presidencial. *Política y Gobierno,* Thematic volume 2013, 139-160.

Romero, V., Magaloni, B., & Diaz-Cayeros, A. (2014). The Mexican war on drugs: Crime and the limits of government persuasion. *International Journal of Public Opinion Research*. Advance online publication. doi:10.1093/ijpor/edu009

Trelles, A., & Carreras, M. (2012). Bullets and votes: Violence and electoral participation in Mexico. *Journal of Politics in Latin America, 4*(2), 89-123.

United Nations Office on Drugs and Crime. (2012). *World drug report.* Retrieved from http://www.unodc.org/unodc/en/data-and-analysis/WDR-2012.html

United Nations Office on Drugs and Crime. (2014). *Global study on homicide 2013*. Retrieved from http://www.unodc.org/documents/gsh/pdfs/2014_global_homicide_book_web.pdf

Voeten, E. & Brewer, P. R. (2006). Public opinion, the war in Iraq, and presidential accountability. *Journal of Conflict Resolution, 50*, 809.

Warr, M. (2000). Fear of crime in the United States: Avenues for research and policy. *Criminal Justice, 4*, 451-89.

Appendix A – Variables Description

Table 1A - 2006 (above) and 2008-2012 (below) LAPOP surveys

Variable	Mean	Std. Dev.	Min	Max	Question Wording
Approval	0.35 0.41	0.48 0.49	0	1	Regarding of the incumbent government, in general, would you say that the work being done by President Vicente Fox/Felipe Calderón is: very good, good, neither good nor bad, bad, or very bad
SecRes1	-.0.00 -0.04	1.74 1.73	-2.66 -3.14	3.96 3.50	To what extent would you say the current government improves citizen security?
Victim	0.20 0.23	0.40 0.42	0	1	Have you been a victim of any type of crime in the past 12 months?
Eco	1.8 1.6	0.65 0.61	1	3	Do you think that the country's current economic situation is better than, the same as, or worse than it was 12 months ago?
Panista	0.16 0.09	0.37 0.28	0	1	Which political party do you identify with?
Woman	0.50 0.50	0.50 0.50	0	1	
Education	8.8 8.8	4.2 4.3	0	18	What was the last year of education you completed?
Age	37.4 39.4	14.2 15.6	18 18	86 93	What is your age in years?

Table 2A - 2011 survey

Variable	Mean	Std. Dev.	Min	Max	Question Wording
Approval	0.58	0.49	0	1	In general, do you approve or disapprove of the job President Felipe Calderón is doing?
SegIntRes	0.09	1.03	-3.28	0.86	Are you for or against President Calderon's government fight against organized crime?
SegRes2	0.08	0.90	-0.87	1.21	If you compare the current public security situation in the country with public security a year ago, would you say that now it is much better, better, worse, or much worse?
Victim	0.47	0.49	0	1	Have you been a victim of any type of crime in the past 12 months?
Eco	1.79	0.85	1	3	If you compare your current economic situation to a year ago, would you say that now it is much better, better, worse, or much worse?
Panista	0.23	0.42	0	1	Independently of your voting choice, which political party do you identify with?
Woman	0.50	0.50	0	1	
Education	6.11	3.33	1	12	What was the last year of education you completed?
Age	39.94	16.00	18	99	What is your age in years?

Appendix B – Regression Output

Logit regression models. Standard errors in parentheses.

	Model 1 2006	Model 2 2008-2012	Model 3 2011
SecRes1	0.430***	0.465***	
	(0.055)	(0.022)	
SecRes2			0.448***
			(0.083)
Victim	-0.518***	-0.298***	-0.244*
	(0.182)	(0.088)	(0.144)
SegIntRes			0.449***
			(0.080)
Eco	0.602***	0.326***	0.316***
	(0.134)	(0.092)	(0.090)
Panista	1.519***	1.232***	1.23***
	(0.274)	(0.074)	(0.209)
Woman	-0.158	-0.103*	0.109
	(0.164)	(0.053)	(0.144)
Education	0.052**	0.024	0.025
	(0.022)	(0.016)	(0.023)
Age	-0.010	-0.002	0.002
	(0.007)	(0.002)	(0.005)
year2010		-0.119***	
		(0.016)	
year2012		0.059***	
		(0.008)	
Constant	-2.017***	-1.000***	-0.700**
	(0.447)	(0.373)	(0.349)
Pseudo R2	0.169	0.134	0.142
n	1,146	4,173	2,554

* $p < .10$; ** $p < .05$; *** $p < .01$.