

# High Powered Incentives with Weak Institutions: The case of the Colombian 'False Positives'

D. Acemoglu   L. Fergusson   J. Robinson   D. Romero   J. Vargas

MIT   Universidad de los Andes   Harvard University   IADB   Universidad del Rosario

IV Congreso de Economía Colombiana  
Universidad de los Andes  
Septiembre 24 de 2014

# Contents

- 1 Motivation
- 2 Context
- 3 Empirical Strategy
  - Empirical Strategy
  - Descriptive Statistics
- 4 Results
  - Army ranks
  - Judicial Efficiency
  - Testing for pre-trends
  - Alternative explanation: collateral damage
- 5 Conclusions

# Contents

- 1 Motivation
- 2 Context
- 3 Empirical Strategy
  - Empirical Strategy
  - Descriptive Statistics
- 4 Results
  - Army ranks
  - Judicial Efficiency
  - Testing for pre-trends
  - Alternative explanation: collateral damage
- 5 Conclusions

# The perils of high-powered incentives

In the fight against insurgents

- High-powered incentives related to measured output (pay-for-performance) can increase non-contractable effort.

# The perils of high-powered incentives

In the fight against insurgents

- High-powered incentives related to measured output (pay-for-performance) can increase non-contractable effort.
- Even so, often not optimal (substitution, gaming).

# The perils of high-powered incentives

In the fight against insurgents

- High-powered incentives related to measured output (pay-for-performance) can increase non-contractable effort.
- Even so, often not optimal (substitution, gaming).
- We investigate this type of dysfunctional behavior in response to high-powered incentives in the Colombian army, whereby military success was proportional to enemy deaths.

# The perils of high-powered incentives

## In the fight against insurgents

- High-powered incentives related to measured output (pay-for-performance) can increase non-contractable effort.
- Even so, often not optimal (substitution, gaming).
- We investigate this type of dysfunctional behavior in response to high-powered incentives in the Colombian army, whereby military success was proportional to enemy deaths.
- Arbitrary executions of civilians by the armed forces, who portrayed them as insurgents taken in combat—*False Positives* (FP).

# The perils of high-powered incentives

## In the fight against insurgents

- High-powered incentives related to measured output (pay-for-performance) can increase non-contractable effort.
- Even so, often not optimal (substitution, gaming).
- We investigate this type of dysfunctional behavior in response to high-powered incentives in the Colombian army, whereby military success was proportional to enemy deaths.
- Arbitrary executions of civilians by the armed forces, who portrayed them as insurgents taken in combat—*False Positives* (FP).
  - Highlights difficulty of making weak institutions stronger.



# The perils of high-powered incentives

## In the fight against insurgents

- High-powered incentives related to measured output (pay-for-performance) can increase non-contractable effort.
- Even so, often not optimal (substitution, gaming).
- We investigate this type of dysfunctional behavior in response to high-powered incentives in the Colombian army, whereby military success was proportional to enemy deaths.
- Arbitrary executions of civilians by the armed forces, who portrayed them as insurgents taken in combat—*False Positives* (FP).
  - Highlights difficulty of making weak institutions stronger.
  - Many approaches to strengthening institutions are based on strong incentives (e.g. Duflo, Hanna, and Ryan, 2012), but there may be unintended consequences (Miller and Babiarz, 2013).

# When is cheating more likely?

- When are FP more likely? If an agent facing pay for performance can cheat, he can choose:

# When is cheating more likely?

- When are FP more likely? If an agent facing pay for performance can cheat, he can choose:
  - 'bad effort' (pretend to work hard to get the bonus—*false positive*), or

# When is cheating more likely?

- When are FP more likely? If an agent facing pay for performance can cheat, he can choose:
  - 'bad effort' (pretend to work hard to get the bonus—*false positive*), or
  - 'good effort' (really work hard—*true positives*).

# When is cheating more likely?

- When are FP more likely? If an agent facing pay for performance can cheat, he can choose:
  - 'bad effort' (pretend to work hard to get the bonus—*false positive*), or
  - 'good effort' (really work hard—*true positives*).
- Bad effort is more likely:

# When is cheating more likely?

- When are FP more likely? If an agent facing pay for performance can cheat, he can choose:
  - 'bad effort' (pretend to work hard to get the bonus—*false positive*), or
  - 'good effort' (really work hard—*true positives*).
- Bad effort is more likely:

**Pred. 1** With **stronger incentives** for given ability to falsify.

# When is cheating more likely?

- When are FP more likely? If an agent facing pay for performance can cheat, he can choose:
  - 'bad effort' (pretend to work hard to get the bonus—*false positive*), or
  - 'good effort' (really work hard—*true positives*).
- Bad effort is more likely:

Pred. 1 With **stronger incentives** for given ability to falsify.

Pred. 2 When it is **easier to falsify** for given incentives.

# Contents

- 1 Motivation
- 2 Context**
- 3 Empirical Strategy
  - Empirical Strategy
  - Descriptive Statistics
- 4 Results
  - Army ranks
  - Judicial Efficiency
  - Testing for pre-trends
  - Alternative explanation: collateral damage
- 5 Conclusions



# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.

# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.
  - [see Figure](#)

# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.
  - [see Figure](#)
- Increase coincided with issue of 'secret' documents ([not so secret](#)) establishing incentives.

# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.
  - [see Figure](#)
- Increase coincided with issue of 'secret' documents ([not so secret](#)) establishing incentives.
- Put in place a reward schedule for killings and capturing insurgents, seizing weapons and sharing information, where:

# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.
  - [see Figure](#)
- Increase coincided with issue of 'secret' documents ([not so secret](#)) establishing incentives.
- Put in place a reward schedule for killings and capturing insurgents, seizing weapons and sharing information, where:
  - 1 Military personnel was not explicitly excluded.

# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.
  - [see Figure](#)
- Increase coincided with issue of 'secret' documents ([not so secret](#)) establishing incentives.
- Put in place a reward schedule for killings and capturing insurgents, seizing weapons and sharing information, where:
  - 1 Military personnel was not explicitly excluded.
  - 2 No authorization ex ante by a superior officer required for operation

# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.
  - [see Figure](#)
- Increase coincided with issue of 'secret' documents ([not so secret](#)) establishing incentives.
- Put in place a reward schedule for killings and capturing insurgents, seizing weapons and sharing information, where:
  - ① Military personnel was not explicitly excluded.
  - ② No authorization ex ante by a superior officer required for operation
  - ③ *Posterior* intelligence could be used to justify the killings.

# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.
  - [see Figure](#)
- Increase coincided with issue of 'secret' documents ([not so secret](#)) establishing incentives.
- Put in place a reward schedule for killings and capturing insurgents, seizing weapons and sharing information, where:
  - ① Military personnel was not explicitly excluded.
  - ② No authorization ex ante by a superior officer required for operation
  - ③ *Posterior* intelligence could be used to justify the killings.
- Also informal and unregulated incentives confirmed by observers (e.g. UN Special Rapporteur)



# Incentives in

- FP had long existed in Colombia, but more common in 2000s with big surge around 2006/7.
  - [see Figure](#)
- Increase coincided with issue of 'secret' documents ([not so secret](#)) establishing incentives.
- Put in place a reward schedule for killings and capturing insurgents, seizing weapons and sharing information, where:
  - 1 Military personnel was not explicitly excluded.
  - 2 No authorization ex ante by a superior officer required for operation
  - 3 *Posterior* intelligence could be used to justify the killings.
- Also informal and unregulated incentives confirmed by observers (e.g. UN Special Rapporteur)
  - days off when important holidays approached (foot soldiers), medals, and promotions (commanders).

## Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.

# Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.
  - Government initially claimed that the victims were *guerrillas killed in combat*.

# Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.
  - Government initially claimed that the victims were *guerrillas killed in combat*.
  - But judicial investigations revealed [this was not the case](#), and the FP were widespread.

# Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.
  - Government initially claimed that the victims were *guerrillas killed in combat*.
  - But judicial investigations revealed [this was not the case](#), and the FP were widespread.
- Government issued new directives changing incentive structure:

# Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.
  - Government initially claimed that the victims were *guerrillas killed in combat*.
  - But judicial investigations revealed [this was not the case](#), and the FP were widespread.
- Government issued new directives changing incentive structure:
  - ① Explicitly exclude rewards to military personnel.

# Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.
  - Government initially claimed that the victims were *guerrillas killed in combat*.
  - But judicial investigations revealed [this was not the case](#), and the FP were widespread.
- Government issued new directives changing incentive structure:
  - ① Explicitly exclude rewards to military personnel.
  - ② Prioritize rewards to successful operations that did not involve killings.

# Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.
  - Government initially claimed that the victims were *guerrillas killed in combat*.
  - But judicial investigations revealed [this was not the case](#), and the FP were widespread.
- Government issued new directives changing incentive structure:
  - ① Explicitly exclude rewards to military personnel.
  - ② Prioritize rewards to successful operations that did not involve killings.
  - ③ Require first investigation of combat-related deaths by judiciary.



# Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.
  - Government initially claimed that the victims were *guerrillas killed in combat*.
  - But judicial investigations revealed [this was not the case](#), and the FP were widespread.
- Government issued new directives changing incentive structure:
  - ① Explicitly exclude rewards to military personnel.
  - ② Prioritize rewards to successful operations that did not involve killings.
  - ③ Require first investigation of combat-related deaths by judiciary.
  - ④ Require *prior* intelligence for operations.

# Incentives out

- FP fall substantially in late 2008: major media scandal with killing of several men from Soacha, near Bogotá.
  - Government initially claimed that the victims were *guerrillas killed in combat*.
  - But judicial investigations revealed [this was not the case](#), and the FP were widespread.
- Government issued new directives changing incentive structure:
  - ① Explicitly exclude rewards to military personnel.
  - ② Prioritize rewards to successful operations that did not involve killings.
  - ③ Require first investigation of combat-related deaths by judiciary.
  - ④ Require *prior* intelligence for operations.
- Also ousted high-ranked officials involved in FP cases and created a special unit to investigate FP the Office of the Attorney General.

# False positives and career concerns

The case of colonels: FP more likely in colonel-led brigades

- Prediction 1: career concerns attached to the new incentives are more likely to affect colonels, who still can go up the military ladder

# False positives and career concerns

The case of colonels: FP more likely in colonel-led brigades

- Prediction 1: career concerns attached to the new incentives are more likely to affect colonels, who still can go up the military ladder
- Colombian army nearly tripled during 2000s
  - some military brigades commanded by colonels, not generals.

# False positives and career concerns

The case of colonels: FP more likely in colonel-led brigades

- Prediction 1: career concerns attached to the new incentives are more likely to affect colonels, who still can go up the military ladder
- Colombian army nearly tripled during 2000s  
→ some military brigades commanded by colonels, not generals.
- Example: 27 soldiers expelled for not killing two people (dressed as civilians). Reaction of platoon commander (a colonel) described thus:

# False positives and career concerns

The case of colonels: FP more likely in colonel-led brigades

- Prediction 1: career concerns attached to the new incentives are more likely to affect colonels, who still can go up the military ladder
- Colombian army nearly tripled during 2000s  
→ some military brigades commanded by colonels, not generals.
- Example: 27 soldiers expelled for not killing two people (dressed as civilians). Reaction of platoon commander (a colonel) described thus:

*“When my colonel came in he started insulting us and scolding us, and told us that we were good for nothing, that we did not understand that a guerrilla member alive was useless for him, and that what mattered were killings because he was going to be promoted to general and that is how his performance was measured. He told us he was going to have us all expelled.”*

Semana, July 2013

# False positives and institutional weakness

The case of weak judicial institutions: FP more likely in places with weak judiciary

- Prediction 2: The difficulty in controlling abuses largely reflects institutional weakness.

# False positives and institutional weakness

The case of weak judicial institutions: FP more likely in places with weak judiciary

- Prediction 2: The difficulty in controlling abuses largely reflects institutional weakness.
- If one (or several) of the branches of the judiciary is corrupt or inefficient at the local level, the incentives to commit abuses in its jurisdiction is higher.



# False positives and institutional weakness

The case of weak judicial institutions: FP more likely in places with weak judiciary

- Prediction 2: The difficulty in controlling abuses largely reflects institutional weakness.
- If one (or several) of the branches of the judiciary is corrupt or inefficient at the local level, the incentives to commit abuses in its jurisdiction is higher.
  - Of the 1,056 cases of killings by armed forces that were assigned to the Fiscalía (Attorney General) through April 2009, only 16 resulted in convictions (Alston, 2010, p. 13).

# False positives and institutional weakness

The case of weak judicial institutions: FP more likely in places with weak judiciary

- Prediction 2: The difficulty in controlling abuses largely reflects institutional weakness.
- If one (or several) of the branches of the judiciary is corrupt or inefficient at the local level, the incentives to commit abuses in its jurisdiction is higher.
  - Of the 1,056 cases of killings by armed forces that were assigned to the Fiscalía (Attorney General) through April 2009, only 16 resulted in convictions (Alston, 2010, p. 13).
- Example: testimony from witnesses in case against Colonel Mejía

# False positives and institutional weakness

The case of weak judicial institutions: FP more likely in places with weak judiciary

- Prediction 2: The difficulty in controlling abuses largely reflects institutional weakness.
- If one (or several) of the branches of the judiciary is corrupt or inefficient at the local level, the incentives to commit abuses in its jurisdiction is higher.
  - Of the 1,056 cases of killings by armed forces that were assigned to the Fiscalía (Attorney General) through April 2009, only 16 resulted in convictions (Alston, 2010, p. 13).
- Example: testimony from witnesses in case against Colonel Mejía
  - In one episode, 19 false guerrilla members were killed: “Mejía had no trouble doing it because the local director of the Attorney General Office helped him with the setup”

# False positives and institutional weakness

The case of weak judicial institutions: FP more likely in places with weak judiciary

- Prediction 2: The difficulty in controlling abuses largely reflects institutional weakness.
- If one (or several) of the branches of the judiciary is corrupt or inefficient at the local level, the incentives to commit abuses in its jurisdiction is higher.
  - Of the 1,056 cases of killings by armed forces that were assigned to the Fiscalía (Attorney General) through April 2009, only 16 resulted in convictions (Alston, 2010, p. 13).
- Example: testimony from witnesses in case against Colonel Mejía
  - In one episode, 19 false guerrilla members were killed: “Mejía had no trouble doing it because the local director of the Attorney General Office helped him with the setup”
  - “When a person disappeared, his family members went to denounce it to the Police or the Ombudsman or any other institution in charge and, after this, the next victims where those denouncing.”

# Contents

- 1 Motivation
- 2 Context
- 3 Empirical Strategy**
  - Empirical Strategy
  - Descriptive Statistics
- 4 Results
  - Army ranks
  - Judicial Efficiency
  - Testing for pre-trends
  - Alternative explanation: collateral damage
- 5 Conclusions

# Empirical strategy I

## False positives and army ranks

- For each municipality  $m$  and year  $t$ , we run the following regression:

$$F. \text{Positive}_{m,t} = \alpha + \delta_m + \delta_t + \beta_0 \text{Colonel}_{m,t} + \beta_1 (\text{Colonel}_{m,t} \times \text{Post}_{\bar{y}}) + \sum_{x \in \mathbf{X}_m} \sum_{i=1}^4 \Phi_{x,i} x^i \times \text{Post}_{\bar{y}} + \varepsilon_{m,t},$$

where:

- $F. \text{positive}_{m,t}$  is either the number of false positive or a dummy,
  - $\text{Colonel}_{m,t}$  equals 1 if the brigade commander is a colonel, and
  - $\text{Post}_{\bar{y}}$  is a dummy equal to 1 for each year  $t$  since  $\bar{y} \in \{2006, 2007\}$ .
- We expect  $\beta_1 > 0$ : larger increase in false positives following the increase in incentives in municipalities under the jurisdiction of brigades commanded by colonels.

# Empirical strategy I

## False positives and army ranks

- For each municipality  $m$  and year  $t$ , we run the following regression:

$$F. \text{Positive}_{m,t} = \alpha + \delta_m + \delta_t + \beta_0 \text{Colonel}_{m,t} + \beta_1 (\text{Colonel}_{m,t} \times \text{Post}_{\bar{y}}) \\ + \sum_{x \in \mathbf{X}_m} \sum_{i=1}^4 \Phi_{x,i} x^i \times \text{Post}_{\bar{y}} + \varepsilon_{m,t},$$

where:

- $F. \text{positive}_{m,t}$  is either the number of false positive or a dummy,
  - $\text{Colonel}_{m,t}$  equals 1 if the brigade commander is a colonel, and
  - $\text{Post}_{\bar{y}}$  is a dummy equal to 1 for each year  $t$  since  $\bar{y} \in \{2006, 2007\}$ .
- We expect  $\beta_1 > 0$ : larger increase in false positives following the increase in incentives in municipalities under the jurisdiction of brigades commanded by colonels.

# Empirical strategy I

## False positives and army ranks

- For each municipality  $m$  and year  $t$ , we run the following regression:

$$F. \text{ Positive}_{m,t} = \alpha + \delta_m + \delta_t + \beta_0 \text{Colonel}_{m,t} + \beta_1 (\text{Colonel}_{m,t} \times \text{Post}_{\bar{y}}) \\ + \sum_{x \in \mathbf{X}_m} \sum_{i=1}^4 \Phi_{x,i} x^i \times \text{Post}_{\bar{y}} + \varepsilon_{m,t},$$

where:

- $F. \text{ positive}_{m,t}$  is either the number of false positive or a dummy,
  - $\text{Colonel}_{m,t}$  equals 1 if the brigade commander is a colonel, and
  - $\text{Post}_{\bar{y}}$  is a dummy equal to 1 for each year  $t$  since  $\bar{y} \in \{2006, 2007\}$ .
- We expect  $\beta_1 > 0$ : larger increase in false positives following the increase in incentives in municipalities under the jurisdiction of brigades commanded by colonels.



# Empirical strategy II

## False positives and quality of judicial institutions

$$\begin{aligned}
 \text{F. positive}_{m,t} &= \alpha + \delta_m + \delta_t + \beta_2 (\text{Judicial Efficiency}_m \times \text{Post}_{\bar{y}}) \\
 &+ \sum_{x \in \mathbf{X}_m} \sum_{i=1}^4 \Phi_{x,i} X^i \times \text{Post}_{\bar{y}} + \varepsilon_{m,t},
 \end{aligned}$$

→ We expect  $\beta_2 < 0$ , implying that the increase in false positives following the increase in incentives was smaller in municipalities with better (judicial) institutions.

Table 1 : Descriptive Statistics for Variables, 2000-2008

VARIABLES	Mean	Std. Dev.	Min	Max
False positives Dummy	0.0498	0.2175	0.00	1.00
Number of False positives	0.0782	0.4716	0.00	15.00
False positives Execution	0.1229	0.7747	0.00	20.00
True positives Dummy	0.1838	0.3873	0.00	1.00
Number of True positives	0.3608	1.0813	0.00	24.00
Number of True positives Kills	0.8385	3.7624	0.00	260.00
Colonel on Charge Dummy	0.2215	0.4152	0.00	1.00
Mean Time Colonel on Charge	0.2042	0.3924	0.00	1.00
Judicial Efficiency Index	0.5409	0.8958	-2.27	23.00

# Contents

- 1 Motivation
- 2 Context
- 3 Empirical Strategy
  - Empirical Strategy
  - Descriptive Statistics
- 4 Results
  - Army ranks
  - Judicial Efficiency
  - Testing for pre-trends
  - Alternative explanation: collateral damage
- 5 Conclusions

Table 2 : False Positives and Rank of Brigade Commanders, 2000-2008

Dependent variable:	Number of False positives		False positives Dummy		False positives Execution	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A: Post Dummy Start - 2006</b>						
Colonel x Post 2006	0.1470***	0.1350***	0.0658***	0.0401**	0.2240***	0.2085**
	0.0310	0.0491	0.0141	0.0188	0.0563	0.0839
R-squared	0.035	0.125	0.049	0.129	0.029	0.108
<b>Panel B: Post Dummy Start - 2007</b>						
Colonel x Post 2007	0.1559***	0.1932***	0.0636***	0.0561**	0.2702***	0.3203***
	0.0369	0.0716	0.0156	0.0230	0.0664	0.1137
R-squared	0.035	0.123	0.049	0.114	0.031	0.112
Year & mun f.e.	✓	✓	✓	✓	✓	✓
Scale (1)		✓		✓		✓
Geography (7)		✓		✓		✓
Conflict and crime (4)		✓		✓		✓
Education (4)		✓		✓		✓
Income/rents (6)		✓		✓		✓
Natural resources (5)		✓		✓		✓
State presence (22)		✓		✓		✓
Observations	9790	7317	9790	7317	9790	7317
Number of municipalities	1094	813	1094	813	1094	813

Table 3 : False Positives and Judicial Efficiency, 2000-2008

Dependent variable:	Number of False positives		False positives Dummy		False positives Execution	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A: Post Dummy Start - 2006</b>						
Judicial Efficiency x Post 2006	-0.0228*	-0.0277***	-0.0117**	-0.0120***	-0.0308*	-0.0330*
	0.0119	0.0097	0.0056	0.0043	0.0167	0.0171
R-squared	0.030	0.121	0.046	0.125	0.025	0.103
<b>Panel B: Post Dummy Start - 2007</b>						
Judicial Efficiency x Post 2007	-0.0180*	-0.0235**	-0.0082*	-0.0107**	-0.0214*	-0.0208
	0.0100	0.0106	0.0042	0.0051	0.0129	0.0182
R-squared	0.030	0.115	0.045	0.109	0.025	0.104
Year & mun f.e.	✓	✓	✓	✓	✓	✓
Scale (1)		✓		✓		✓
Geography (7)		✓		✓		✓
Conflict and crime (4)		✓		✓		✓
Education (4)		✓		✓		✓
Income/rents (6)		✓		✓		✓
Natural resources (5)		✓		✓		✓
State presence (22)		✓		✓		✓
Observations	9671	7470	9671	7470	9671	7470
Number of municipalities	1075	830	1075	830	1075	830

# Testing for pre-trends

- We estimate our baseline equations with a full set of interactions with year dummies instead of the post dummy:

$$\begin{aligned}
 \text{F. positive}_{m,t} = & \alpha + \delta_m + \delta_t + \sum_{t \geq 2001} \beta_t (\Gamma \times \delta_t) \\
 & + \sum_{x \in \mathbf{X}_m} \sum_{i=1}^4 \Phi_{x,i} X^i \times \text{Post}_{\bar{y}} + \varepsilon_{m,t},
 \end{aligned}$$

where  $\Gamma \in \{\text{Judicial Efficiency}_m, \text{Colonel}_{m,t}\}$ .

Figure 1 : Effect of Colonels on False Positives

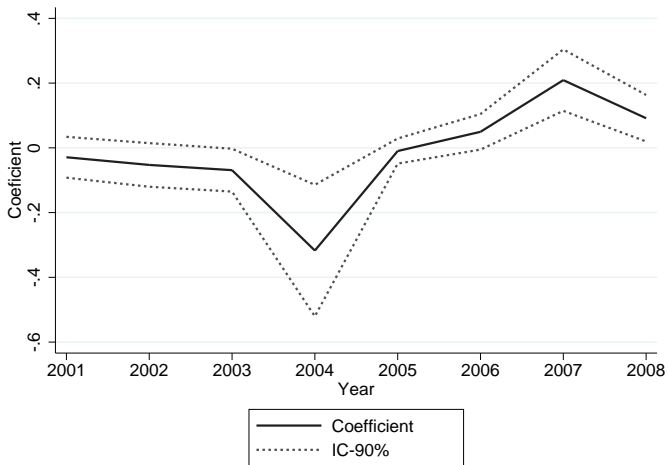
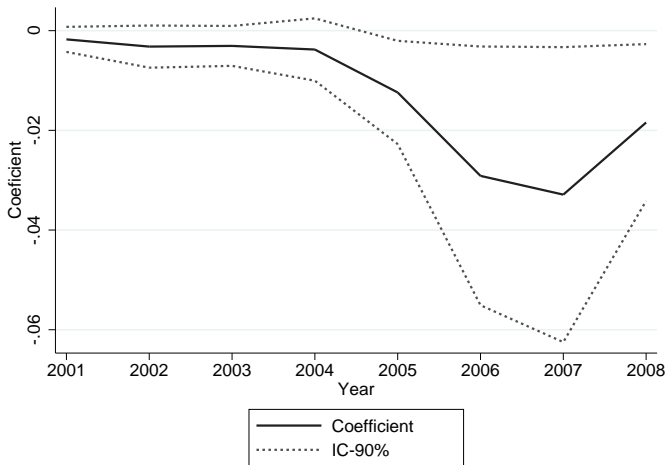


Figure 2 : Effect of Judicial Efficiency on False Positives





# True positives

- The incidence of FP may just be collateral damage following the intensification of the Colombian conflict:
  - With president's Uribe *Democratic Security Policy* the army hits the insurgents strongly (i.e. "True Positives", TP) and civilians die as a byproduct of these clashes and attacks.
- But:
  - Timing of FP and that TP is different. [see Figure](#). If anything there is substitution, not complementarity
  - TP do increase in colonel-led brigades but the effect is proportionally smaller.
    - Example with post 2007: In colonel-led brigades effect is of 5 times the mean on FP incidence and as large as the standard deviation, but a third of the mean on TP and 1/6 of its standard deviation.
  - TP do not happen disproportionately in places with weaker judicial institutions.

Table 4 : True positives and rank brigade commander, 2000-2008

Dependent variable:	True positives	Dummy	Number of True positives	Number of True positives	Number of True positives	Kills
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel C: Post Dummy Start - 2006</b>						
Colonel x Post 2006	0.0566***	0.0317	0.1915***	0.1223*	0.4188***	0.4000**
	0.0196	0.0271	0.0476	0.0729	0.1214	0.1992
R-squared	0.008	0.049	0.013	0.058	0.009	0.034
<b>Panel D: Post Dummy Start - 2007</b>						
Colonel x Post 2007	0.0540***	0.0654**	0.2004***	0.2137***	0.3713***	0.4644**
	0.0185	0.0261	0.0517	0.0772	0.1190	0.1955
R-squared	0.007	0.043	0.014	0.058	0.009	0.029
Year & mun f.e.	✓	✓	✓	✓	✓	✓
Scale (1)		✓		✓		✓
Geography (7)		✓		✓		✓
Conflict and crime (4)		✓		✓		✓
Education (4)		✓		✓		✓
Income/rents (6)		✓		✓		✓
Natural resources (5)		✓		✓		✓
State presence (22)		✓		✓		✓
Observations	9790	7317	9790	7317	9790	7317
Number of municipalities	1094	813	1094	813	1094	813

Table 5 : True Positives and Judicial Efficiency, 2000-2008

Dependent variable:	True positives Dummy		Number of True positives		Number of True positives Kills	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel C: Post Dummy Start - 2006</b>						
Judicial Efficiency x Post 2006	-0.0050	-0.0044	-0.0151	-0.0099	0.0132	0.0443
	0.0048	0.0077	0.0140	0.0233	0.0373	0.0530
R-squared	0.006	0.048	0.011	0.058	0.008	0.033
<b>Panel D: Post Dummy Start - 2007</b>						
Judicial Efficiency x Post 2007	-0.0029	0.0012	-0.0095	-0.0021	0.0149	0.0752
	0.0042	0.0081	0.0127	0.0221	0.0363	0.0547
R-squared	0.006	0.040	0.011	0.055	0.008	0.027
Year & mun f.e.	✓	✓	✓	✓	✓	✓
Scale (1)		✓		✓		✓
Geography (7)		✓		✓		✓
Conflict and crime (4)		✓		✓		✓
Education (4)		✓		✓		✓
Income/rents (6)		✓		✓		✓
Natural resources (5)		✓		✓		✓
State presence (22)		✓		✓		✓
Observations	9671	7470	9671	7470	9671	7470
Number of municipalities	1075	830	1075	830	1075	830

# Contents

- 1 Motivation
- 2 Context
- 3 Empirical Strategy
  - Empirical Strategy
  - Descriptive Statistics
- 4 Results
  - Army ranks
  - Judicial Efficiency
  - Testing for pre-trends
  - Alternative explanation: collateral damage
- 5 Conclusions

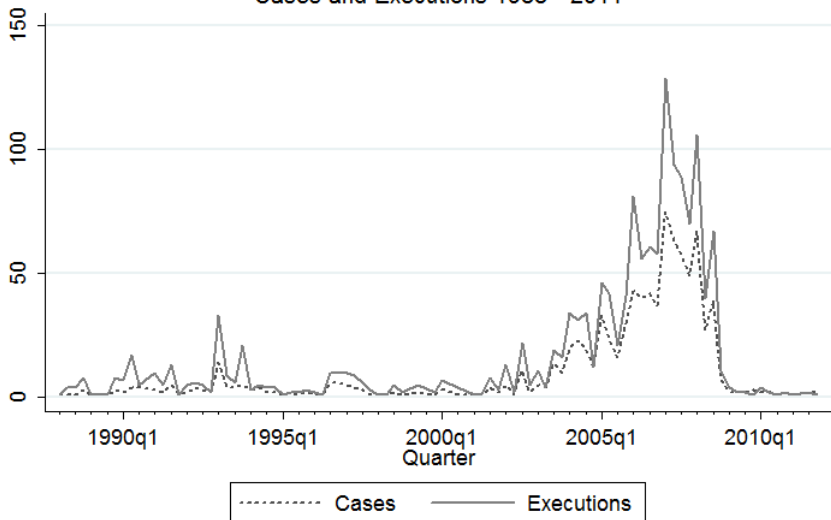
# Conclusion

- High powered incentives may have unintended negative consequences if there are incentives to misbehave.
- For given incentives, the worse is the institutional environment (in particular the quality of the judiciary) the greater the misbehavior.
- We show that in the case of the Colombian army the introduction of high powered incentives in the form of money, vacations and promotions pushed some of its members to engage in 'false positives'.
  - This outcome was more likely for officials for which the incentives were higher (colonels relative to generals),
  - It is more frequent in places with less efficient state judicial institutions.
  - It is not explained by collateral damage in the upsurge of the counterinsurgency effort.

# Thank you!

## False Positives by Quarter

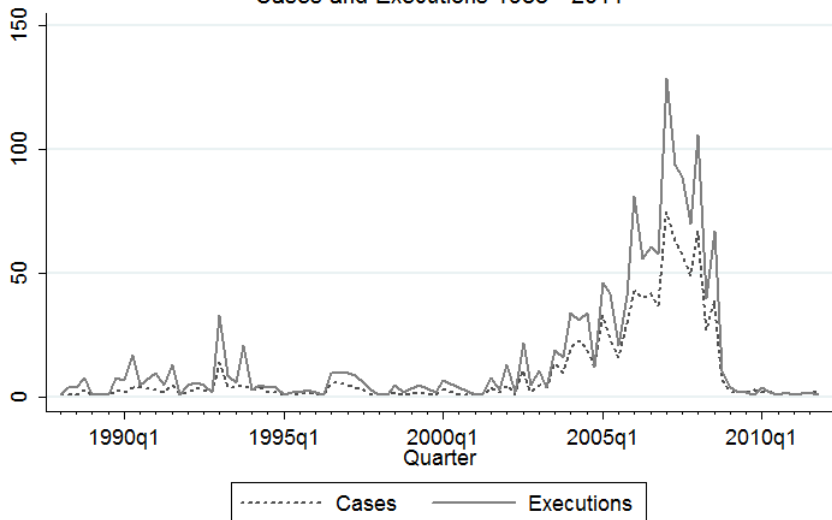
Cases and Executions 1988 - 2011



[Back](#)

## False Positives by Quarter

Cases and Executions 1988 - 2011



[Back](#)



SECRETO  
REPÚBLICA DE COLOMBIA



MINISTERIO DE DEFENSA NACIONAL

COPIA No 12 DE 16 COPIAS  
MINISTERIO DE DEFENSA NACIONAL  
BOGOTÁ, D.C. 17 NOV. 2005

Pago  
Recomp

DIRECTIVA MINISTERIAL PERMANENTE

No 29 /2005

ASUNTO : Política ministerial que desarrolla criterios para el pago de recompensas por la captura o abatimiento en combate de cabecillas de las organizaciones armadas al margen de la ley, material de guerra, intendencia o comunicaciones e información sobre actividades relacionadas con el narcotráfico y pago de información que sirva de fundamento para la continuación de labores de inteligencia y el posterior planeamiento de operaciones.



DEPARTAMENTO ADMINISTRATIVO DE LA FUNCIÓN PÚBLICA

DECRETO NUMERÓ 1400 DE 2006

5 MAY 2006

Por el cual se crea la Bonificación por Operaciones de Importancia Nacional -  
BOINA

EL PRESIDENTE DE LA REPÚBLICA DE COLOMBIA,

En desarrollo de las normas generales señaladas en la Ley 4ª de 1992,

DECRETA:

**ARTÍCULO 1º. BONIFICACIÓN POR OPERACIONES DE IMPORTANCIA NACIONAL -BOINA.** Créase la Bonificación por Operaciones de Importancia Nacional - BOINA, para los Miembros de la Fuerza Pública y funcionarios del Departamento Administrativo de Segundad - DAS, que participen en una operación de importancia nacional, la cual se otorgará por cada ocasión,

**PARÁGRAFO 1º.** Esta bonificación podrá ser otorgada a una misma persona tantas veces cuantas se haga acreedora a ella, por participación en operaciones de importancia nacional.

**PARÁGRAFO 2º.** La Bonificación de que trata este artículo, solo será reconocida y pagada por la participación en la respectiva operación de importancia nacional.

**PARÁGRAFO 3º.** Esta bonificación no constituye factor para liquidar elementos salariales o prestacionales, ni se tendrá en cuenta para determinar remuneraciones de otros servidores públicos.

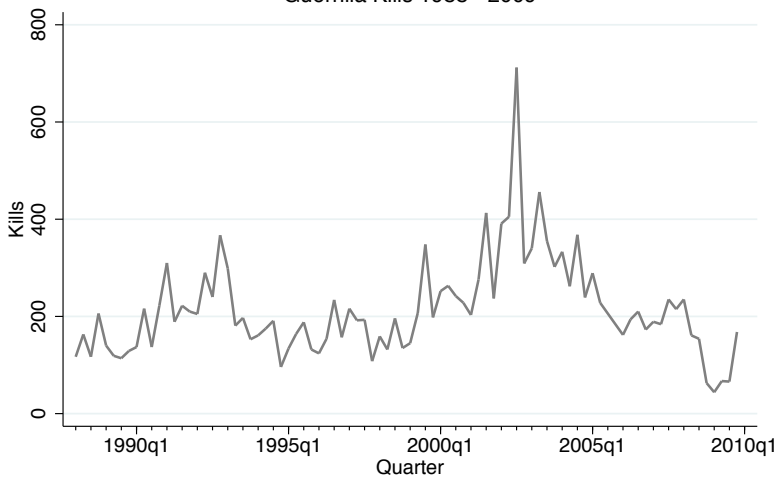
**ARTÍCULO 2º. OPERACIONES DE IMPORTANCIA NACIONAL.** Para efectos del presente decreto, se consideran de importancia nacional aquellas operaciones en las cuales se logre la captura de los cabecillas de los niveles I y II que se encuentran determinados en la Directiva expedida por el Ministro de Defensa Nacional.



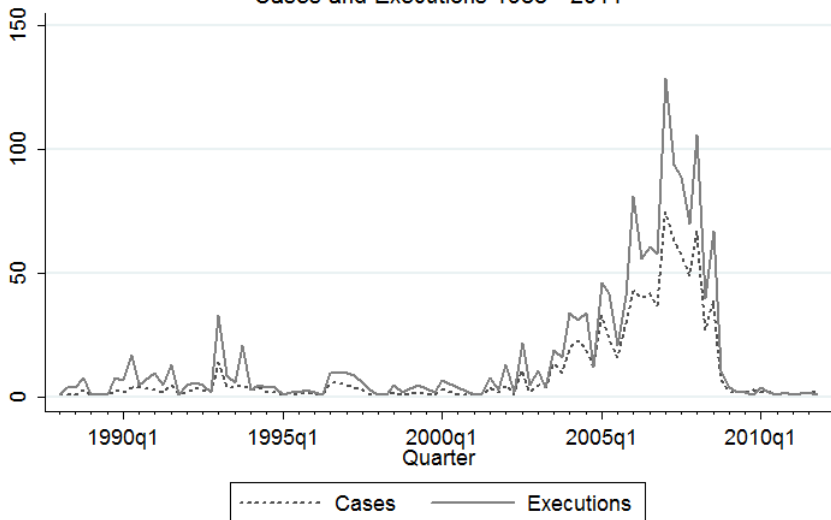
[Back](#)

# True Positives by Quarter

Guerrilla Kills 1988 - 2009



## False Positives by Quarter Cases and Executions 1988 - 2011



# WRONG ANSWER

*In an era of high-stakes testing, a struggling school made a shocking choice.*

BY RACHEL AVIV

One afternoon in the spring of 2006, Damany Lewis, a math teacher at Parks Middle School, in Atlanta, unlocked the room where standardized tests were kept. It was the week before his students took the Criterion-Referenced Competency Test, which determined whether schools in Georgia had met federal standards of achievement. The tests were wrapped in cellophane and stacked in cardboard boxes. Lewis, a slim twenty-nine-year-old with dreadlocks, contemplated opening the test with scissors, but he thought his cut marks would be too obvious. Instead, he left the school, walked to the corner store, and bought a razor blade. When he returned, he slit open the cellophane and gently pulled a test book from its wrapping. Then he used a lighter to warm the razor, which he wedged under the adhesive sealing the booklet, and peeled back the tab.



*Christoph  
lauded in  
of the sch  
illustration*



He photocopied the math, reading, and language-arts sections—the subjects that would determine, under the No Child Left Behind guidelines, whether Parks would be classified as a “school in need of improvement” for the sixth year in a row. Unless fifty-eight per cent of students passed the math portion of the test and sixty-seven per cent passed in language arts, the state could shut down the school. Lewis put on gloves, to prevent oil from his hands from leaving a residue on the plastic, and then used his lighter to melt the edges of the cellophane together, so that it appeared as if the package had never been opened. He gave the reading and language-arts sections to two teachers he trusted and took the math section home.

[Back](#)

Table 6 : False Positives, 1988-2011.

Alleged group of the victim and organization of the perpetrator

	Cases	Executions
<b>Panel A: Alleged group of the victim</b>		
Guerrilla	693 (74.9%)	1,162 (76.8%)
Paramilitary	36 (4.9%)	67 (4.4%)
Other	196 (21.2%)	284 (18.8%)
<b>Panel B: Organization of the perpetrator</b>		
Army	853 (92.2%)	1,422 (94%)
Police	37 (4%)	37 (2.4%)
Other	35 (3.8%)	54 (3.6%)
<b>Total</b>	<b>925</b>	<b>1,513</b>

Table 7 : False positives by rank of brigade commander, 2000-2008

<i>Full Sample</i>					<i>General</i>			<i>Colonel</i>			
Mean	Std. Dev.	Min	Max	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Diff
<b>Panel A: False Positive Dummy</b>											
<i>All the Years</i>											
0.0498	0.2175	0	1	10062	0.0386	0.1926	7622	0.0923	0.2894	2168	0.0537***
<b>Before and after the strengthening of incentives</b>											
<i>Before year...</i>											
... 2006											
0.0248	0.1554	0	1	6703	0.0242	0.1537	5739	0.0276	0.1638	798	0.0033
... 2007											
0.0354	0.1848	0	1	7821	0.0307	0.1725	6355	0.0603	0.2381	1261	0.0296***
<i>After year...</i>											
... 2006											
0.0997	0.2997	0	1	3359	0.0823	0.2749	1883	0.1299	0.3363	1370	0.0476***
... 2007											
0.1000	0.3000	0	1	2241	0.0781	0.2685	1267	0.1367	0.3437	907	0.0586***
<b>Panel B: Number of False Positives</b>											
<i>All the Years</i>											
0.0782	0.4716	0	15	10062	0.0559	0.3505	7622	0.1628	0.7660	2168	0.1069***
<b>Before and after the strengthening of incentives</b>											
<i>Before year...</i>											
... 2006											
0.0358	0.2910	0	12	6703	0.0359	0.3001	5739	0.0351	0.2323	798	-0.0008
... 2007											
0.0514	0.3357	0	12	7821	0.0445	0.3175	6355	0.0888	0.4273	1261	0.0443***
<i>After year...</i>											
... 2006											
0.1628	0.6976	0	15	3359	0.1168	0.4669	1883	0.2372	0.9393	1370	0.1204***
... 2007											
0.1718	0.7708	0	15	2241	0.1129	0.4793	1267	0.2657	1.0636	907	0.1528***
<b>Panel C: Number of False Positives Executions</b>											
<i>All the Years</i>											
0.1229	0.7747	0	20	10062	0.0896	0.6039	7622	0.2500	1.2111	2168	0.1604***
<b>Before and after the strengthening of incentives</b>											
<i>Before year...</i>											
... 2006											
0.0562	0.4867	0	19	6703	0.0554	0.4947	5739	0.0614	0.4338	798	0.0060
... 2007											
0.0809	0.5719	0	19	7821	0.0714	0.5499	6355	0.1332	0.6887	1261	0.0618***
<i>After year...</i>											
... 2006											
0.2560	1.1397	0	20	3359	0.1938	0.8464	1883	0.3599	1.4763	1370	0.1660***
... 2007											
0.2695	1.2355	0	20	2241	0.1807	0.8173	1267	0.4123	1.6743	907	0.2316***



Table 8 : False positives by Efficiency of Institutions, 2000-2008

<i>Full Sample</i>				<i>Low Efficiency</i>			<i>High Efficiency</i>			Diff				
Mean	Std. Dev.	Min	Max	N	Mean	Std. Dev.	N	Mean	Std. Dev.		N			
<b>Panel A: False Positive Dummy</b>														
0.0498	0.2175	0	1	10062	<i>All the Years</i>			0.0580	0.2337	4831	0.0450	0.2074	4840	-0.0129***
<b>Before and after the strengthening of incentives</b>														
<i>Before year...</i>														
... 2006														
0.0248	0.1554	0	1	6703	0.0280	0.1649	3220	0.0236	0.1517	3226	-0.0044			
... 2007														
0.0354	0.1848	0	1	7821	0.0421	0.2007	3757	0.0311	0.1736	3764	-0.0110**			
<i>After year...</i>														
... 2006														
0.0997	0.2997	0	1	3359	0.1179	0.3226	1611	0.0880	0.2834	1614	-0.0300***			
... 2007														
0.1000	0.3000	0	1	2241	0.1136	0.3175	1074	0.0939	0.2918	1076	-0.0197			
<b>Panel B: Number of False Positives</b>														
0.0782	0.4716	0	15	10062	<i>All the Years</i>			0.0907	0.5280	4831	0.0715	0.4277	4840	-0.0192**
<b>Before and after the strengthening of incentives</b>														
<i>Before year...</i>														
... 2006														
0.0358	0.2910	0	12	6703	0.0357	0.2371	3220	0.0387	0.3460	3226	0.0030			
... 2007														
0.0514	0.3357	0	12	7821	0.0564	0.3164	3757	0.0499	0.3655	3764	-0.0065			
<i>After year...</i>														
... 2006														
0.1628	0.6976	0	15	3359	0.2005	0.8401	1611	0.1369	0.5505	1614	-0.0636**			
... 2007														
0.1718	0.7708	0	15	2241	0.2104	0.9412	1074	0.1468	0.5905	1076	-0.0636*			
<b>Panel C: Number of False Positives Executions</b>														
0.1229	0.7747	0	20	10062	<i>All the Years</i>			0.1395	0.8251	4831	0.1155	0.7523	4840	-0.0240
<b>Before and after the strengthening of incentives</b>														
<i>Before year...</i>														
... 2006														
0.0562	0.4867	0	19	6703	0.0534	0.3849	3220	0.0635	0.5867	3226	0.0101			
... 2007														
0.0809	0.5719	0	19	7821	0.0900	0.5628	3757	0.0776	0.6015	3764	-0.0124			
<i>After year...</i>														
... 2006														
0.2560	1.1397	0	20	3359	0.3116	1.3045	1611	0.2193	0.9967	1614	-0.0923**			
... 2007														
0.2695	1.2355	0	20	2241	0.3128	1.3845	1074	0.2481	1.1218	1076	-0.0647			