Insurgent Selective Violence and Civilian Collaboration

Evidence from the Drone War in Pakistan

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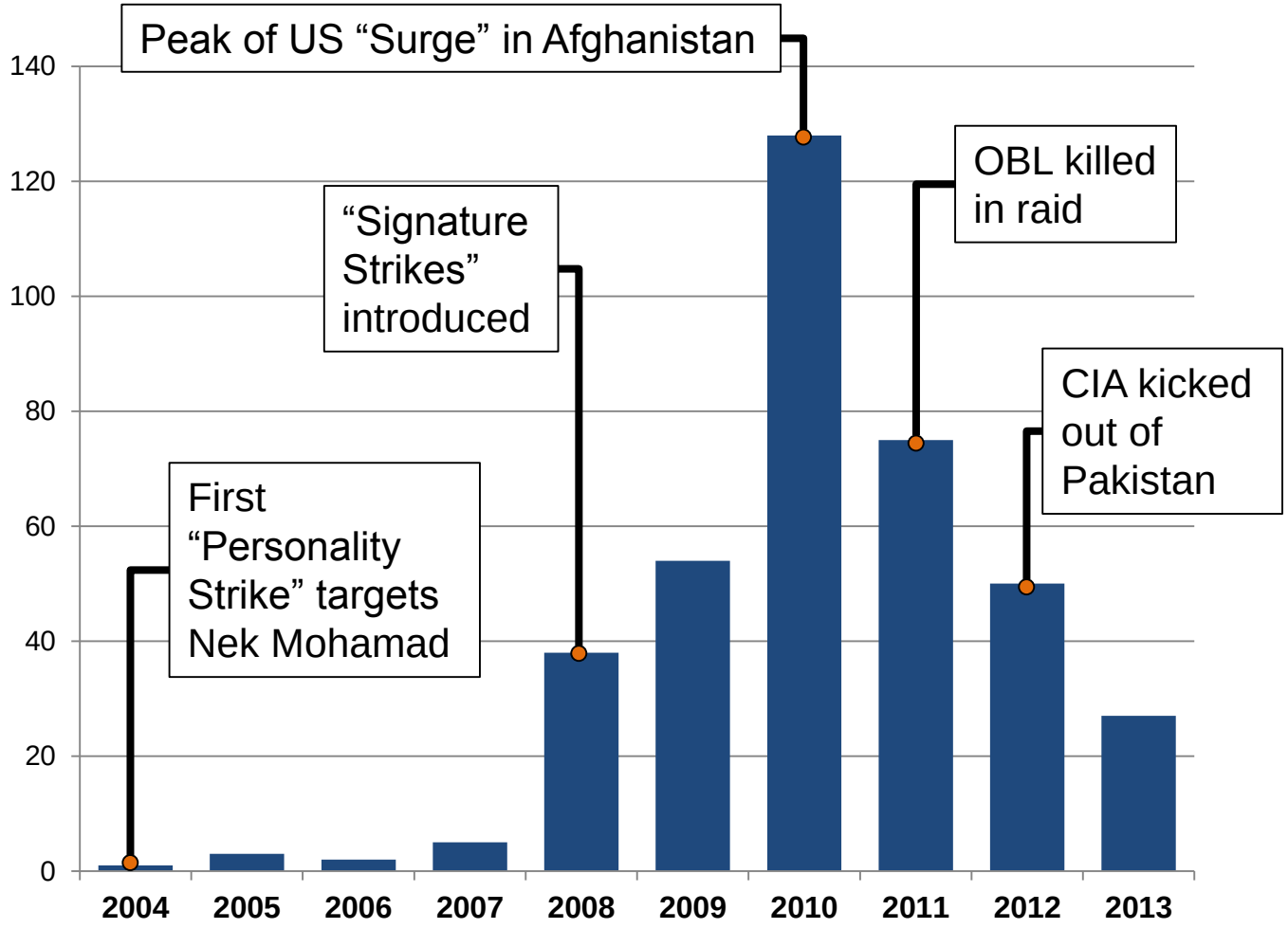
Drone Strikes in Pakistan, 2004-2013



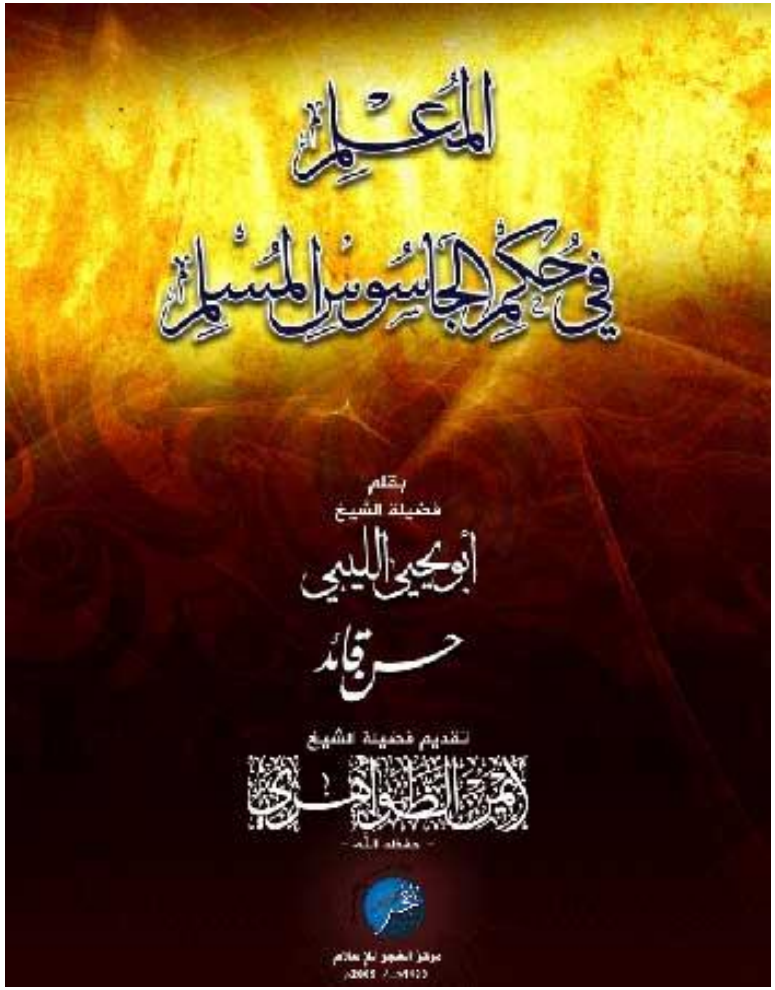
Totals	
Strikes	328
Total Killed	3,718
Militants	2,761
Civilians	957
Lethality	9.7
Militants	2.5
Civilians	7.2

Source: Bureau of Investigative Journalism

Understanding Drone Warfare

- **Conventional approach to drones is to treat under rubric of targeted killings**
  - Counterinsurgent → Insurgents
  - Organizational survivability (e.g., Jordan)
  - Militant effectiveness/violence (e.g., Johnston and others)
  - Propaganda effectiveness
- **What's missing in the literature**
  - Insurgent → Counterinsurgent?
  - Are there insurgent strategies for countering the US drone campaign?
- **Collaborator killings in tribal areas of Pakistan unique opportunity**
  - Previous research found multiple reports of killings of individuals specifically identified as collaborating with the United States

Al Qaeda warns of the danger of "Muslim Spies"



"We would not be exaggerating if we said that the frontline of the Crusader's campaign…is the spying networks in all its types, shapes, and forms. …

The spying networks are their eyes to see the hidden things that they cannot see and are their hands that are still extending inside the houses, in the forests, up the mountains, into the valleys, and inside the dark caves in order to catch a target that their developed technology was not able to reach."

Abu-Yahya al-Libi
Al Qaeda
Guidance on the Ruling of the Muslim Spy
June, 2009

Taliban campaign against “US Spies” in the tribal areas of Pakistan

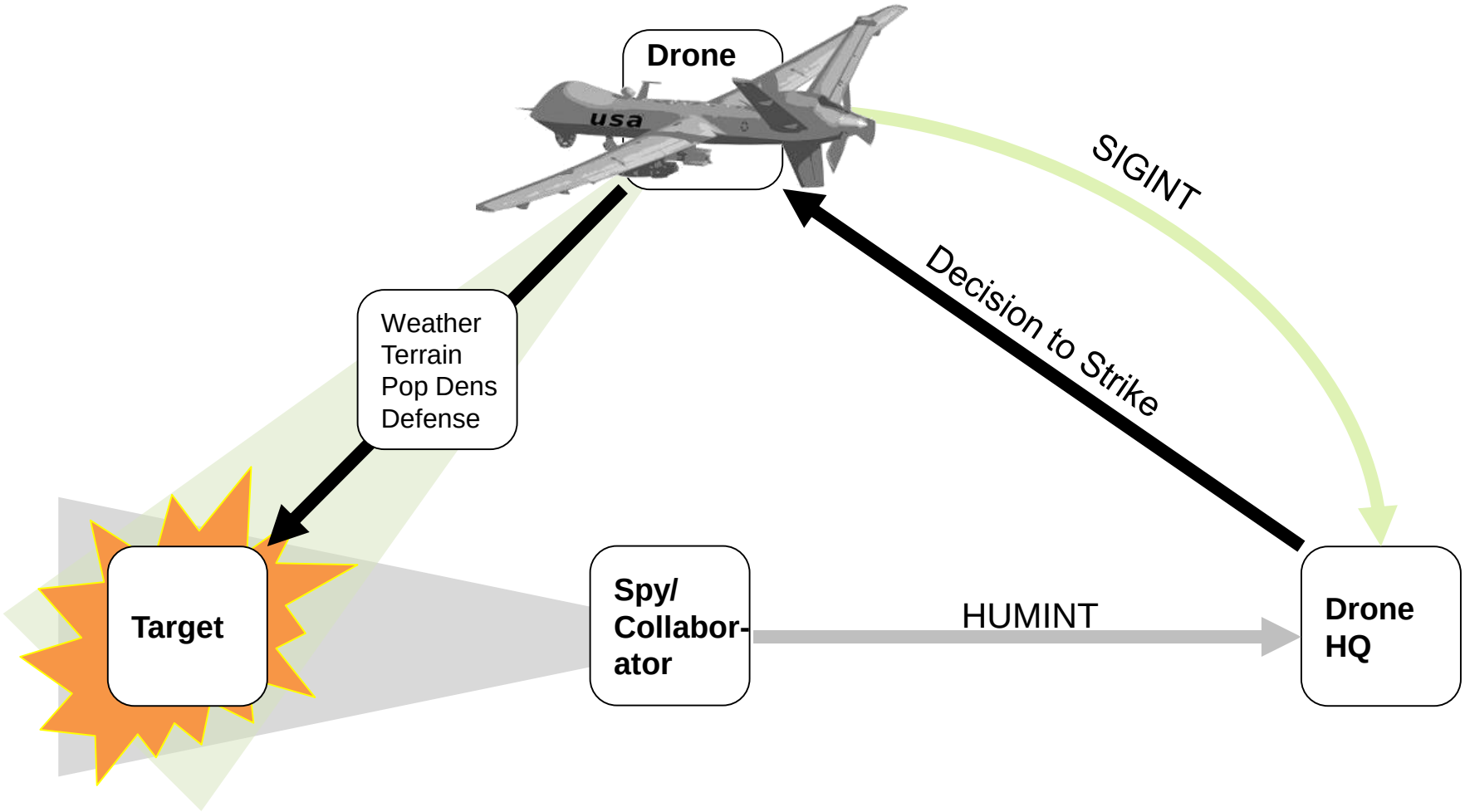
- **Wide-spread belief that spying central to drone program: "chips" and "magic pens" used to by spies to guide drones to target**
- **Specialized counterintelligence unit, Lashkar-e-Khorasan, created by main militant groups in Waziristan in 2009**
- **Notes on victims identify them as US spies and ward others that “all spies will share the same fate”**
- **Confessions of spying videotaped and distributed on DVD**
- **The Pakistani government reports losing 70 spies in the tribal areas between 2004 and 2011**

“Taliban Use Swords to Slit the Throats of Afghan ‘Traitors’ in Public Executions before Thousands.” *Daily Mail*, June 27, 2008.

Why drone strikes drive insurgents to kill collaborators

- **Militants believe collaborators are central to the effectiveness of drone strikes.**
  - Believe eliminating/deterring collaborators will improve security.
  - Anecdotal evidence suggests this is the case.
- **Alternative explanations for collaborator killings**
  - Cover for eliminating political rivals (e.g., Cole 2014)
  - Intimidating/undermining local adversaries (e.g., Kydd & Walter 2006)
  - False denunciations for settling scores and private gain (e.g., Kalyvas)
- **How can we know?**
  - If collaborator killings have an impact on drone strikes, then we have reason to believe that the killings are strategic

Pathways Affecting Drone Operations



Note: ~1% of Drone missions involve shots fired

Hypothesis: Mechanisms by which killing of alleged spies degrades drone strike quality

Actual Selectivity vs Spies	*Perceived Selectivity*	*Elimination Mechanism*	*Deterrence Mechanism*	*Predict Degradation*
Selective	Selective	✓	✓	Yes
Selective	Indiscriminate	✓	✗	Yes
Indiscriminate	Selective	✗	✓	Yes
Indiscriminate	Indiscriminate	✗	✗	No

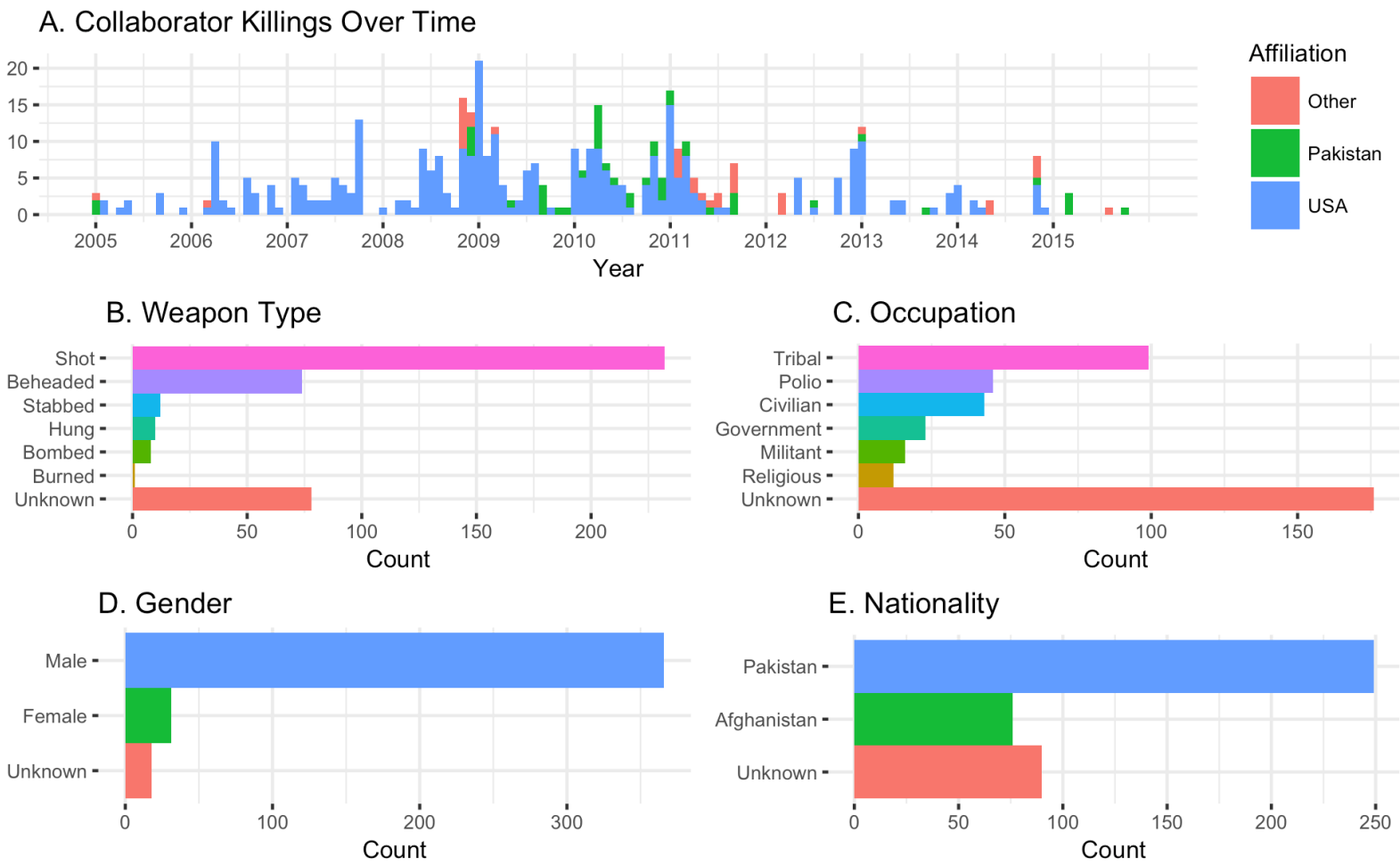
1. If effect, unclear whether because of elimination or deterrence.

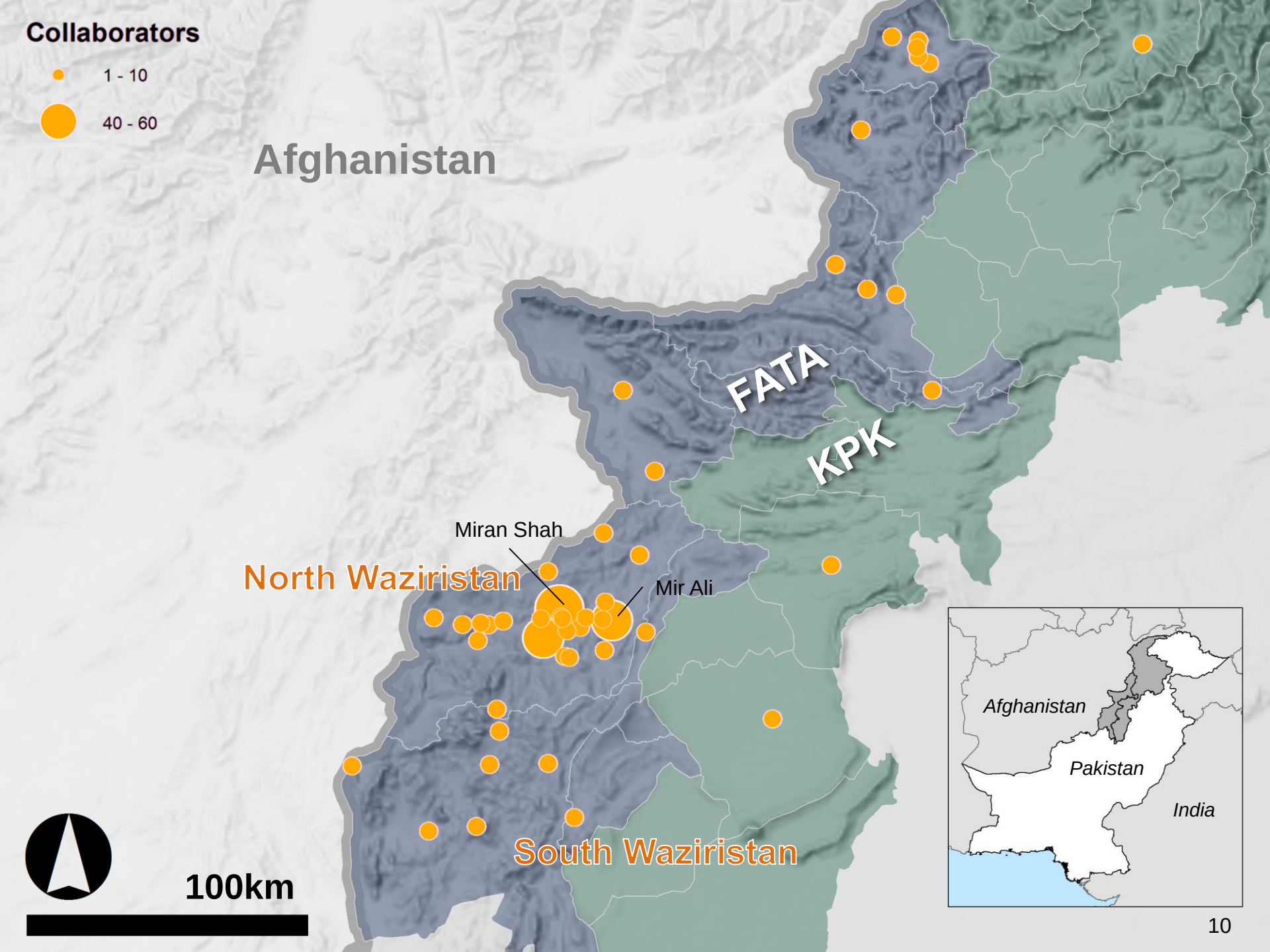
2. If no effect, militants ineffective at counterespionage.

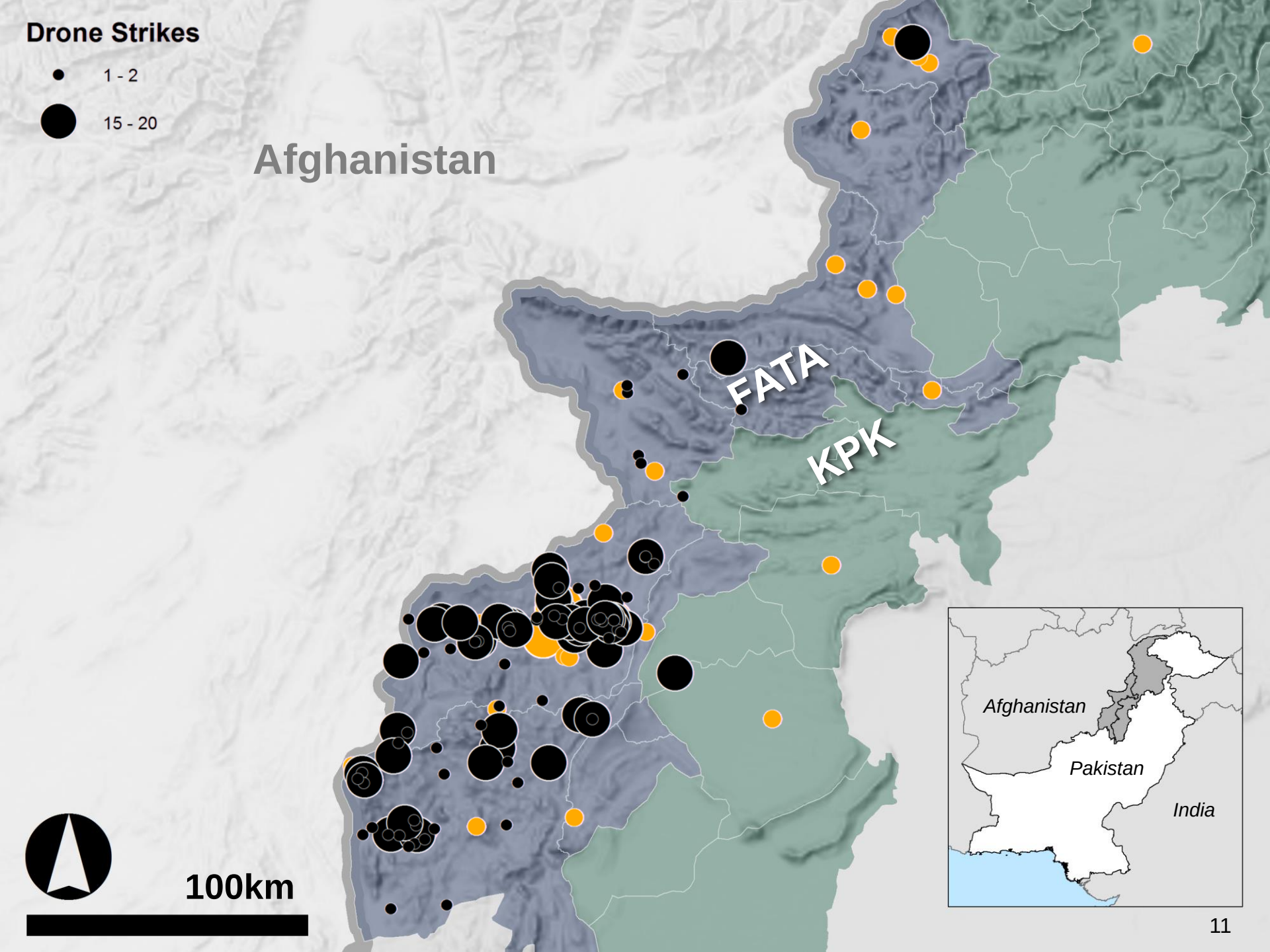
Building the Collaborator Killing Database

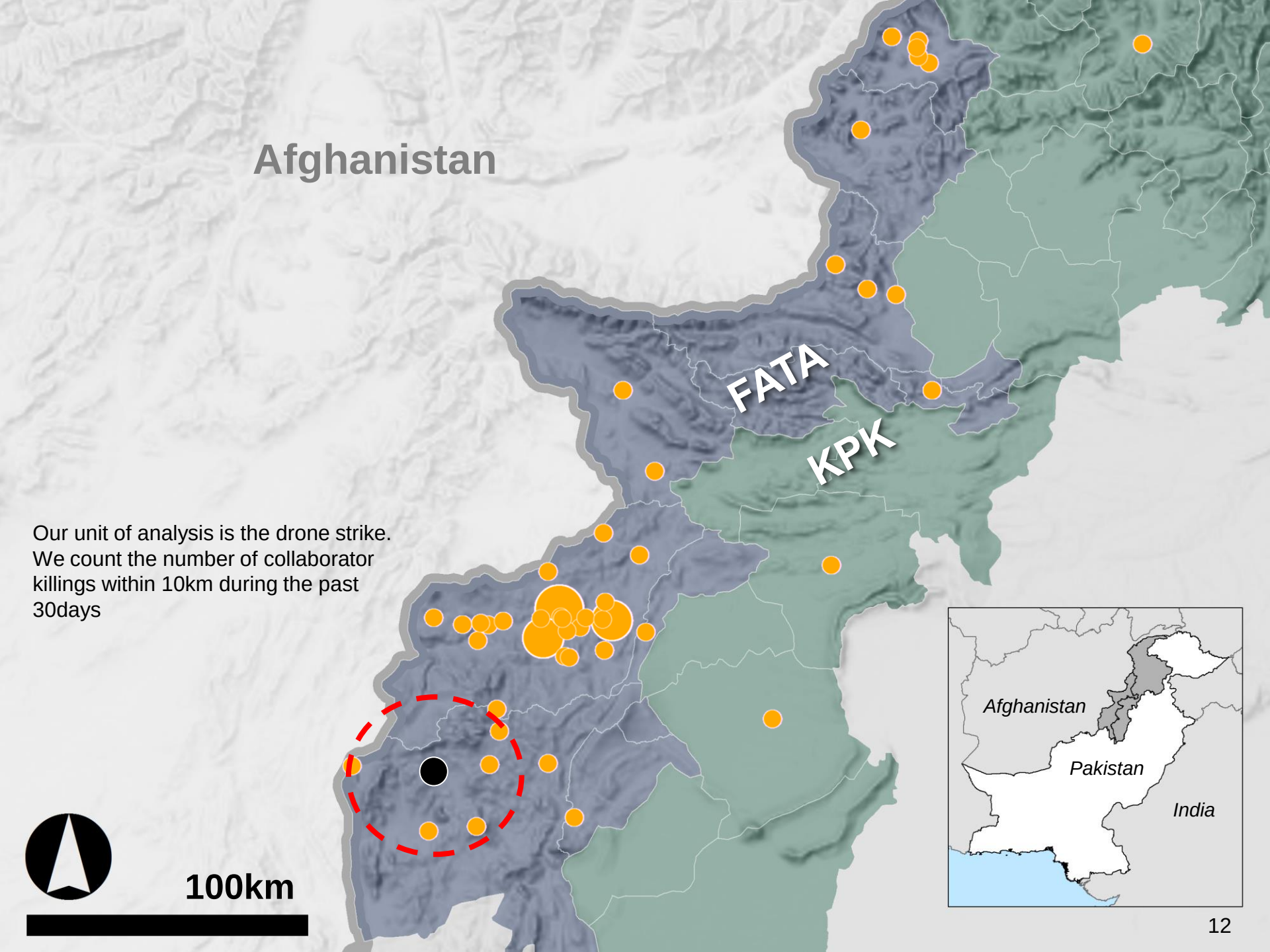
- **How was the data collected?**
  - Events were collected by RAs at CPOST in 2015 from Newswires (LexisNexis) and Dawn (Google) using keyword searches. Updated by RAs at Stanford in 2017.
- **What were the inclusion criteria?**
  - Civilian victimization (killed, shot, bodies…)
  - Indications of spying (spy, spying, spied…)
  - Suspected responsibility by militants (militants, fighters, Taliban…)
  - Story reported in Pakistan.
- **What makes spying so visible?**
  - Notes are left with the vast majority of victims, marking them as collaborators and accusing them of working with the United States.

Descriptive Statistics: Collaborator Killings




Collaborators
1 - 10
40 - 60
Afghanistan
FATA
KPK
Miran Shah
North Waziristan
Mir Ali
South Waziristan
100km
Afghanistan
Pakistan
India


Drone Strikes
1 - 2
15 - 20
Afghanistan
FATA
KPK
100km
Afghanistan
Pakistan
India



Our unit of analysis is the drone strike. We count the number of collaborator killings within 10km during the past 30days

Model Specifications

Model Type

- **Negative Binomial regression**
  - Appropriate for count variables where the variance is greater than the mean

Dependent Variables

- **Militants killed**
  - Total number of drone strike victims minus individuals identified by BIJ to have been civilians
- **HVTs killed**
  - Commanders and leaders of militant organizations killed in drone strikes, identified by BIJ and LWJ
- **Civilians killed**
  - Drone strike victims identified by BIJ to have been civilians.

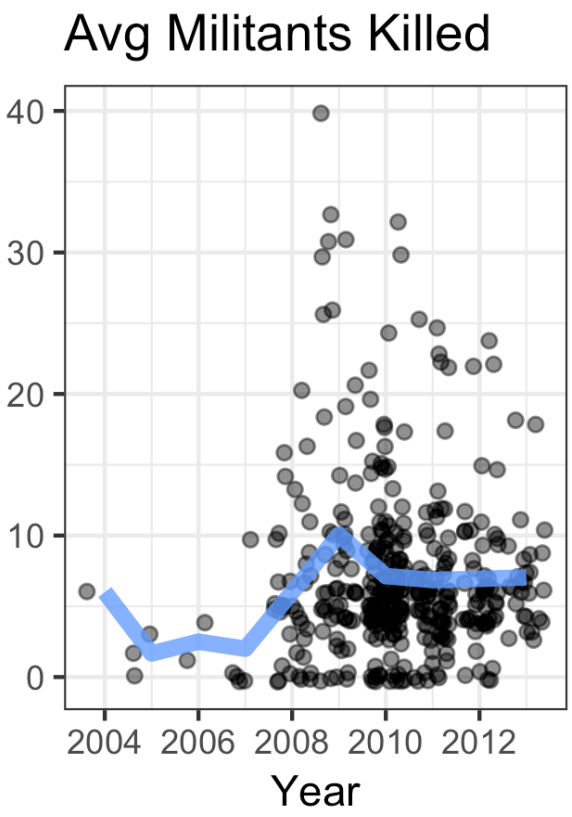
Independent Variable

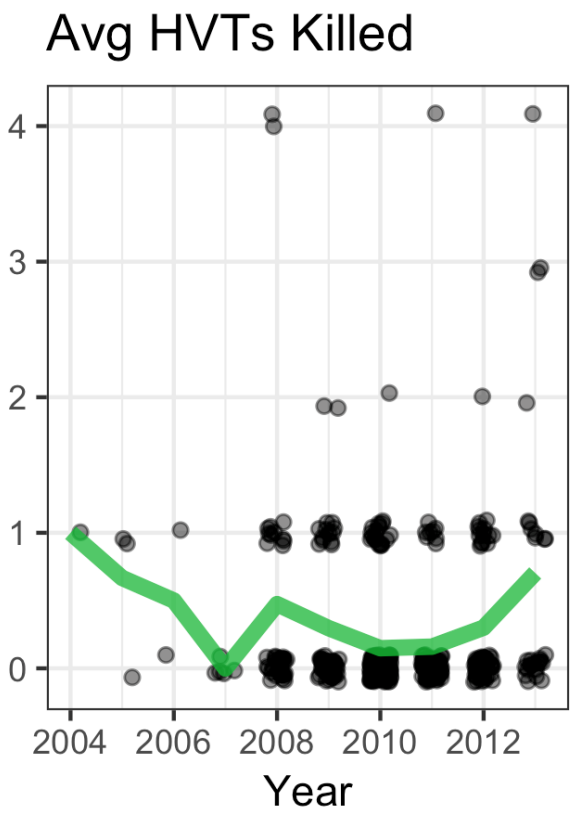
- **Collaborator killings**
  - Alleged collaborators killed within 10km of the drone strike within the previous 30 days.
  - Robustness checks on 25km and 90 days.

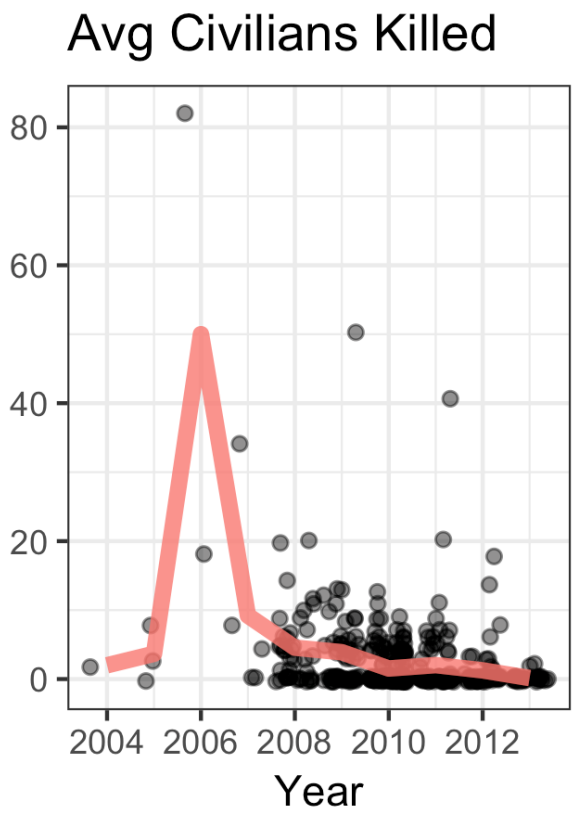
Control Variables

- **Weather**
  - Controls for the difficulty of conducting drone strikes in different weather conditions
- **Population density**
  - Controls for the possibility that more people=more militants to strike
- **Rough terrain:**
  - Controls for the possibility that drone strikes will be less effective in killing militants in rough terrain
- **Pakistani military operations**
  - Controls for the possibility Pakistani military intelligence substitutes for local collaborators during operations
- **Previous drone strike**
  - Controls for the possibility that defensive measures other than killings affect drone strike quality

Descriptive Statistics: Average Effectiveness



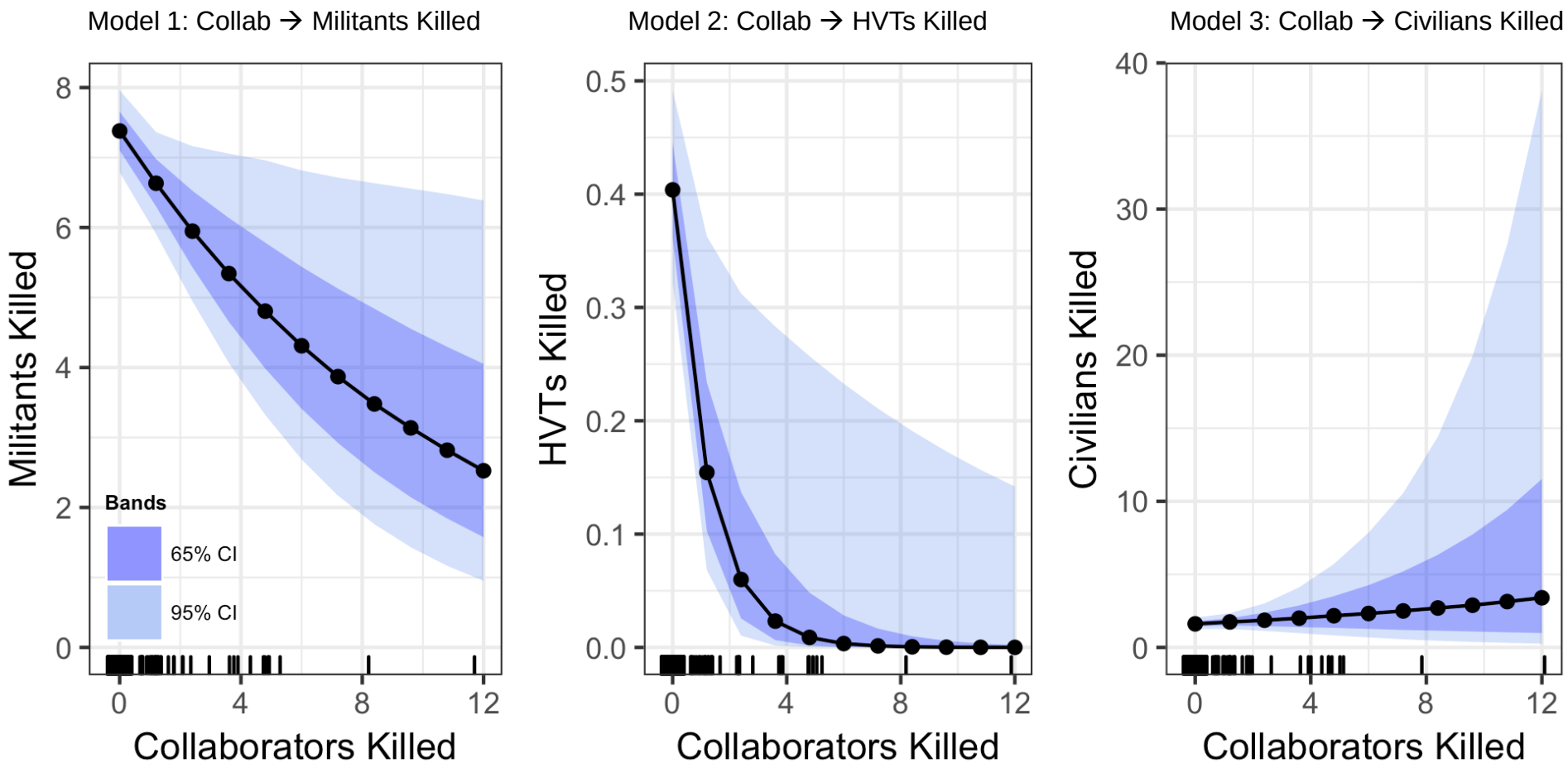




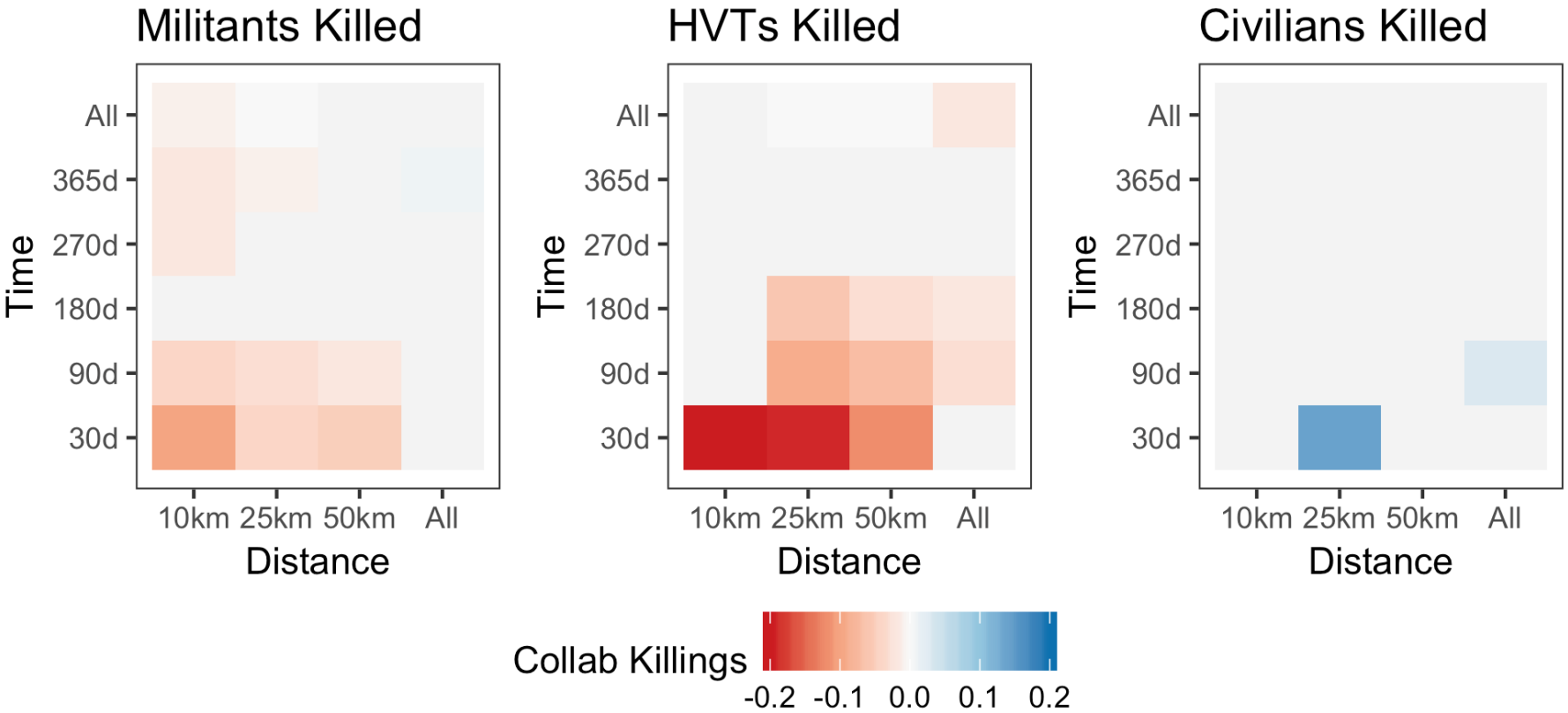
	Model 1	Model 2	Model 3
	DV: N Militants Killed	*DV: N HVTs Killed*	*DV: N Civilians Killed*
-Collaborator Killings	**-0.093***	**-0.824***	**0.053**
(Sum within 25km, 30 Days Prior)	**(0.042)**	**(0.372)**	**(0.109)**
	[0.026]	**[0.027]**	**[0.625]**
-Population Density	0.001**	0.001	-0.001
(Per km in District)	(0.000)	(0.001)	(0.001)
	[0.006]	[0.620]	[0.649]
-Terrain	0.001*	-0.000	0.002
(SD of elevation in District)	(0.001)	(0.002)	(0.002)
	[0.023]	[0.851]	[0.365]
-Temp	0.007	-0.008	0.050**
(Ave. within 30km, Day of Strike)	(0.005)	(0.015)	(0.018)
	[0.214]	[0.624]	[0.004]
-Snow Cover	0.008	0.025	0.017
(Ave. within 30km, Day of Strike)	(0.007)	(0.018)	(0.022)
	[0.289]	[0.167]	[0.433]
-Precipitation	0.005	-0.105	0.019
(Ave. within 30km, Day of Strike)	(0.019)	(0.078)	(0.060)
	[0.786]	[0.176]	[0.748]
-Cloud Cover	0.001	0.005	0.012
(Ave. within 30km, Day of Strike)	(0.003)	(0.007)	(0.007)
	[0.791]	[0.494]	[0.073]
-Militants Killed	-0.001	-0.008	-0.005
(Sum within District, 30 Days Prior)	(0.002)	(0.006)	(0.008)
	[0.594]	[0.183]	[0.466]
-Prev. Drone Strikes	-0.014	-0.045	-0.022
(Sum within 10km, 30 Days Prior)	(0.032)	(0.096)	(0.102)
	[0.657]	[0.640]	[0.829]
-Conflict Day of Strike	-0.000	0.000	-0.001***
	(0.000)	(0.000)	(0.000)
	[0.315]	[0.330]	[0.000]
-Constant	-0.245	0.873	-11.451*
	(1.571)	(4.467)	(5.020)
	[0.876]	[0.845]	[0.023]
-$ln\ \alpha$	-0.747***	0.588*	1.602***
	(0.100)	(0.251)	(0.125)
	[0.000]	[0.019]	[0.000]
-N	373	373	373
-χ^2	23.353**	20.878*	32.726***
-Log Likelihood	-1106.224	-294.348	-585.383
-McFadden's Pseudo-R^2	0.010	0.034	0.027
-AIC	2236.447	612.697	1194.767

Note: Standard Errors in parentheses; p-values in brackets
**Significant at .05, **Significant at .01, ***Significant at .001 (Two-Tailed)*

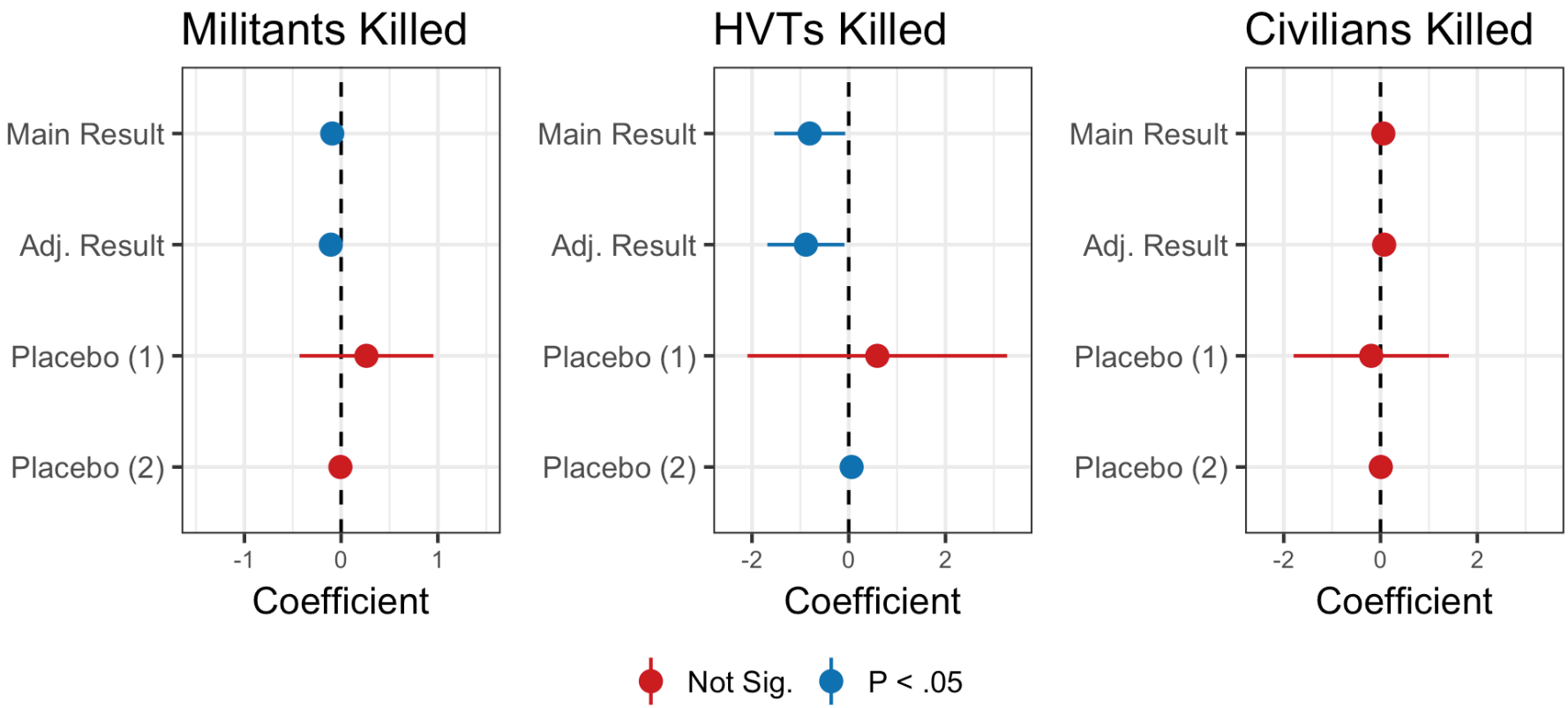
Finding: Drone strikes kill fewer militants in areas with more collaborator killings



Robustness: Distance-time specifications



Robustness: Placebo checks

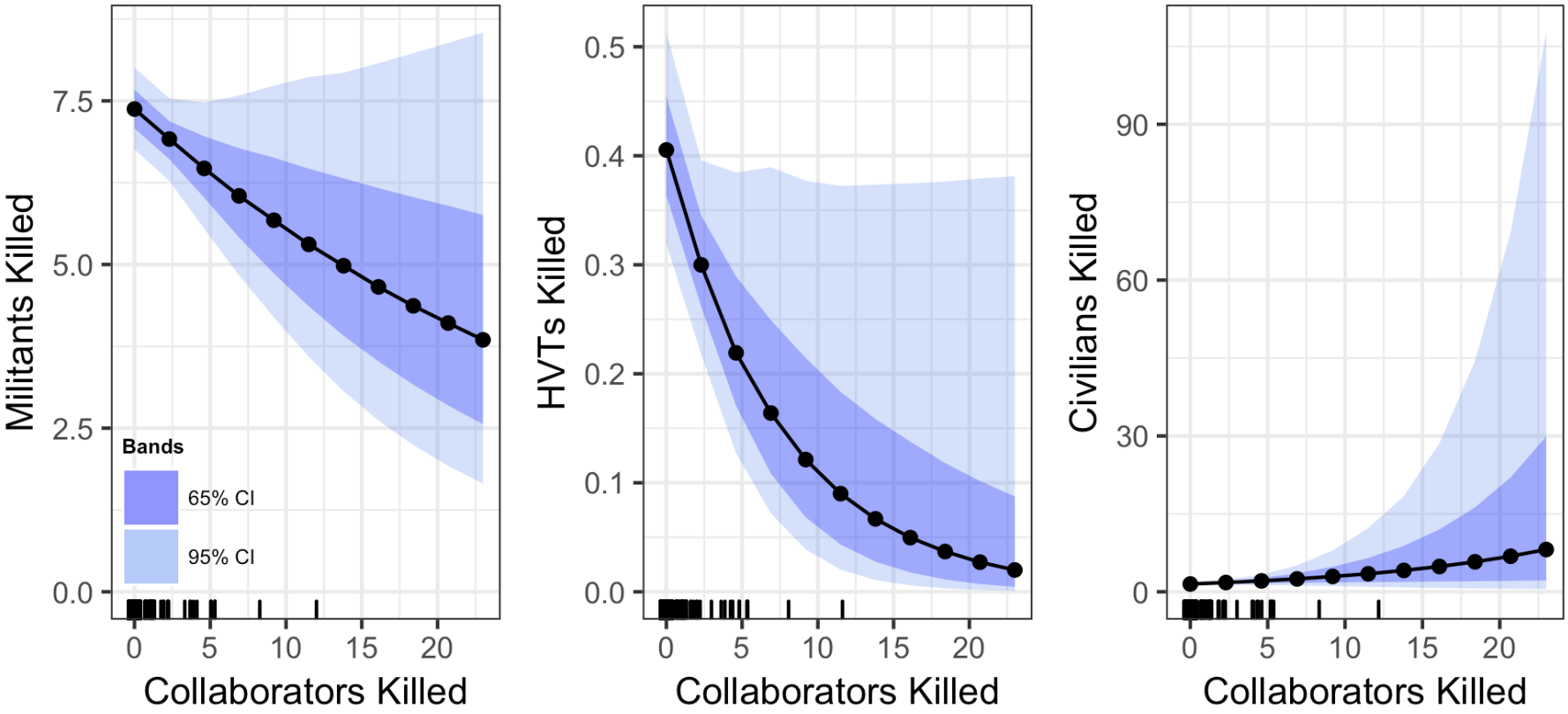


Policy Implications

- **The long-term effectiveness of drone campaigns can be mitigated by sufficiently ruthless militant organizations**
- **Drone strikes will decline in tactical effectiveness over time as militant strategy of "deterrence by denial" via collaborator killings takes effect**
- **Suggests a "Penicillin Effect" where an organization becomes progressively more difficult to effectively interdict in a sustained drone campaign**
- **While a given level of tactical results could in theory be maintained via a continual escalation in the volume of attacks, this would gradually undermine the cost savings that helped to motivate the policy in the first place**

Questions?

Robustness: 25km substantive effects



Robustness: 90 days substantive effects