

Democrat vs Republican: A Study on the Magnitude and Lethality of US Drone Strikes in Foreign Countries

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Abstract

This study investigates whether U.S. political party control is associated with the lethality, accuracy, and overall magnitude of American drone strikes in Pakistan, Yemen, and Somalia. Using annual data on drone strike outcomes, such as total deaths, civilian, child, and military deaths, combined with political information, we apply a series of non-parametric statistical tests to evaluate partisan differences. Although this observational data limits causal claims, our findings highlight important connections between political leadership and international drone strike outcomes.

Introduction

Since drone programs operate under presidential administrations with different political affiliations and priorities, we aim to discover whether political leadership meaningfully shapes drone strike outcomes. Studying these patterns can help us better understand how drone strike outcomes shift across political administrations. It can also reveal how broader policy changes correspond to measurable changes in lethality and accuracy, such as Obama's 2011-2013 "near certainty" civilian protection standard discussed in the Brookings article "Biden can reduce civilian casualties during US drone strikes. Here's how." (Kreps 2022). Overall, our analysis can provide helpful insight to the ongoing conversations about the role of politics in shaping military decision making, revealing how partisan control may influence the lethality and accuracy of U.S. drone strikes.

Research Questions

For our report, we are focusing on three main questions relating to US drone strike data in Pakistan, Somalia, and Yemen.

- Is there a significant difference in the lethality of US drone strikes under republican and democratic presidents? For the point of this question, "lethality" is defined as the number of deaths estimated per drone strike.
- Is there a significant difference in the accuracy of US drone strikes under republican and democratic presidents? We are defining accuracy to be the proportion of military targets versus civilian targets for each drone strike, with a higher accuracy being a higher proportion of military targets.
- How does the number of US drone strikes change over time? The goal of this question is to better understand and contextualize the pattern of drone strikes across the timeline of the data. Even more, we can focus particularly on Obama's presidency, as his number of drone strikes changed drastically over his years in office due to policy change.

Implementation

To investigate whether political party control is related to the lethality and accuracy of U.S. drone strikes in Yemen, Pakistan, and Somalia, we used a series of statistical tests. Our approach was to examine how drone-strike patterns changed across different political conditions, such as the presidential party. We chose this design as the data varies year by year, allowing us to compare trends across different administrations. The following tests were used:

- Wilcoxon-Mann-Whitney Test
- Shapiro-Wilk Test
- Levene's Test

The Data

Our analysis was based on the raw drone-strike dataset from The Guardian, which we prepared and transformed in R ("US Drone Strikes Data," n.d.). The original dataset compiles yearly information on U.S. drone activity in Pakistan, Yemen, and Somalia, including several key variables:

- Country
- Civilians Killed
- Children Killed
- Military Personnel Killed
- Total Number of Strikes per Event

Results

Our results showed that Lethality by Presidential Party, Obama Policy: Lethality (Before vs. After), and Obama Policy: Accuracy (Before vs. After) were all statistically significant.

Through our analysis, we concluded that there was a significant difference between the lethality of drone strikes based on the presidential party in power. Drone strikes under a Democratic presidential administration were significantly more lethal. There was no significant difference in the accuracy of drone strikes between the two political parties.

Our tests revealed that there is statistically significant evidence that US drone strikes had decreased lethality and increased accuracy after the Near Certainty Policy was implemented.

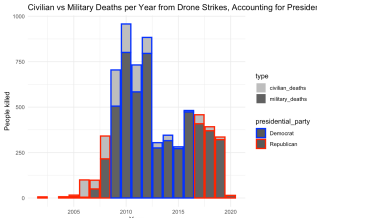
In the last **20 years**, the **Democratic party** has, on average, authorized **more lethal** drone strikes than the Republican Party.

With a Democratic President in office, there have been more casualties from overseas drone strikes than with Republican Presidents

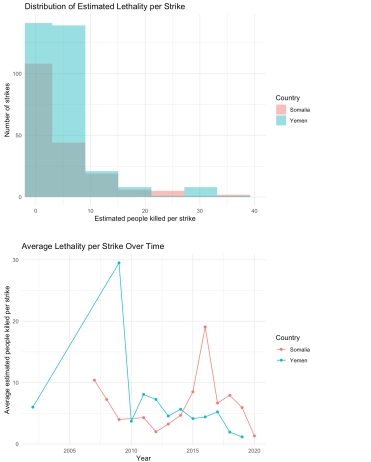


Visualizations

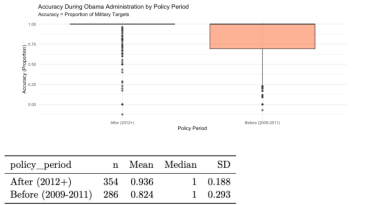
Effect of Presidential Party on Civilian Casualties



Lethality of Strikes in Yemen and Somalia



Strike Accuracy Before and After 2012 Policy



Summary of Statistical Tests

Analysis	Test	P-Value	Significant
Lethality (Presidential Party)	Wilcoxon-Mann-Whitney	8.875e-10	Yes
Accuracy (Presidential Party)	Wilcoxon-Mann-Whitney	0.08202	No
Obama Policy: Lethality	Wilcoxon-Mann-Whitney	1.579e-08	Yes
Obama Policy: Accuracy	Wilcoxon-Mann-Whitney	1.382e-08	Yes

References

Kreps, Sarah. 2022. "Biden Can Reduce Civilian Casualties During US Drone Strikes. Here's How." *Brookings*, March. www.brookings.edu/articles/biden-can-reduce-civilian-casualties-during-us-drone-strikes-heres-how/.
"US Drone Strikes Data." n.d. *The Guardian*.