



Overview

This paper examines the effectiveness of terrorist propaganda at influencing public opinion in a conflict setting. From 2015 until the present, we examine various propaganda activities by ISIS in Afghanistan, including the circulation of video/print material, radio broadcasts, graffiti, and night letters. We leverage unique military-sourced microdata on propaganda activities and public opinion. These data are supplemented with additional sources providing a rich array of district- and household-level characteristics. With supervised machine learning we build a prediction model for the emergence of ISIS propaganda across Afghanistan. We then invoke various identification strategies to measure the impact of local and global propaganda on public opinion towards ISIS. We identify the impact of local ISIS propaganda by exploiting the construction/destruction of an ISIS radio tower in East Afghanistan. We identify the local impact of global propaganda by exploiting the precise timing of video/print material release, relative to household survey dates.

Three related questions, three empirical strategies

- **Infiltration** what technologies do insurgents use (ie, messaging) to influence local political dynamics?
We use battery of district-level covariates and supervised machine learning to predict patterns of propaganda use.
- **Messaging at home** how does local propaganda messaging influence local support for insurgency?
We use the quasi-random signal reach, timing of radio tower construction (and destruction), and several waves of proprietary military survey data to study the impact of IS-K messaging on local sentiment.
- **Messaging from abroad** how does global propaganda content influence local sentiment?
We leverage the timing of global video releases and expansion of the 3G network to examine how video content influences support for IS-K.

Literature Review

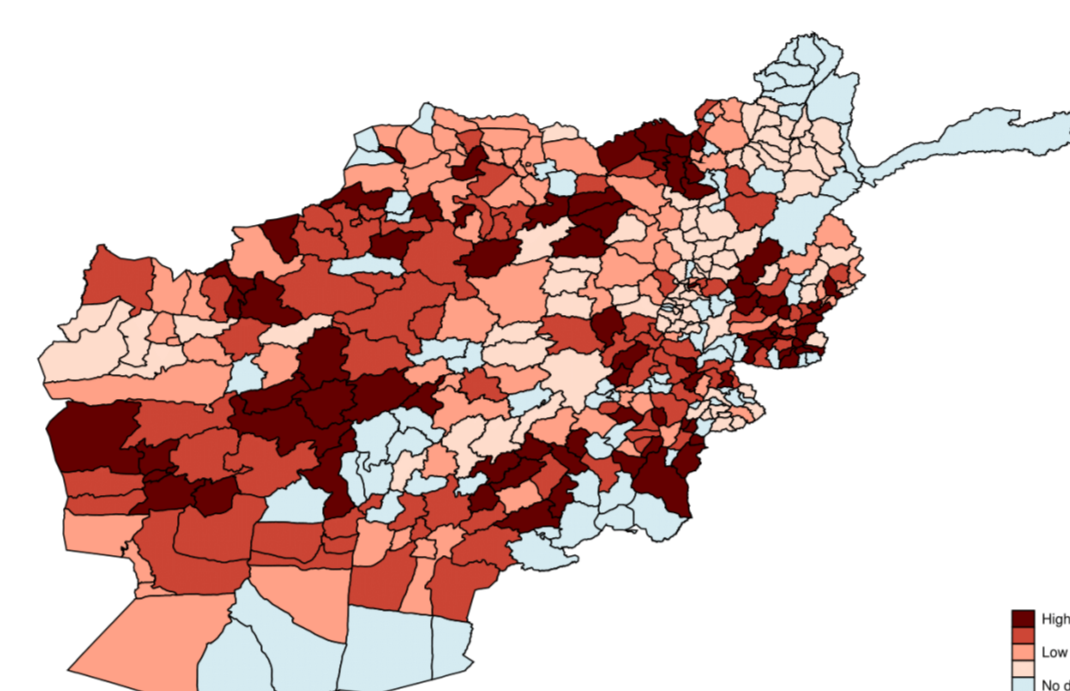
- ISIS operates a vast network of **global and local propaganda activities**, which are fundamentally correlated to the **local support** of the organization, crucial for its survival.
- A growing literature has explored **media persuasion** and **the effectiveness of propaganda**, with ambiguous results [6, 4, 5].
- **Propaganda effects by nefarious actors** have also been shown to influence political and ideological preferences, with extremely **deleterious consequences** [3, 1].
- Moreover, a nascent literature focuses on the success of counterinsurgency information campaigns at inducing defections and garnering intelligence [2, 9].
- *- Our paper **complements** this work by studying the **effectiveness of terrorist propaganda**.
- Some already existing work shows that ISIS attacks in Europe and online propaganda efforts **contributed to greater online support** for ISIS among global Twitter users [7, 8].
- *- Our work is differentiate from these by focusing on local support for ISIS **within the conflict theater** where they are based.

Infiltration

Our analysis begins with a cross-sectional study of the correlates of local ISIS propaganda in Afghanistan. For each district sampled in 2015, we take the average response across households as our outcome for a cross-sectional prediction model.

- We identify eight potential 'fields of influence' which conceivably impact the local presence of ISIS and, combining the data sources of the distinct characteristics measured at the district level, we produce a cross-sectional dataset covering 80% of Afghanistan's 398 districts.

Spatial Distribution of Local Propaganda



Lasso Model To narrow down our set of predictors we invoke the Lasso Model: By penalizing coefficient magnitudes during optimization, the impact of many covariates is reduced to zero. The model's output therefore includes only the subset of covariates most important for predicting the emergence of local ISIS propaganda.

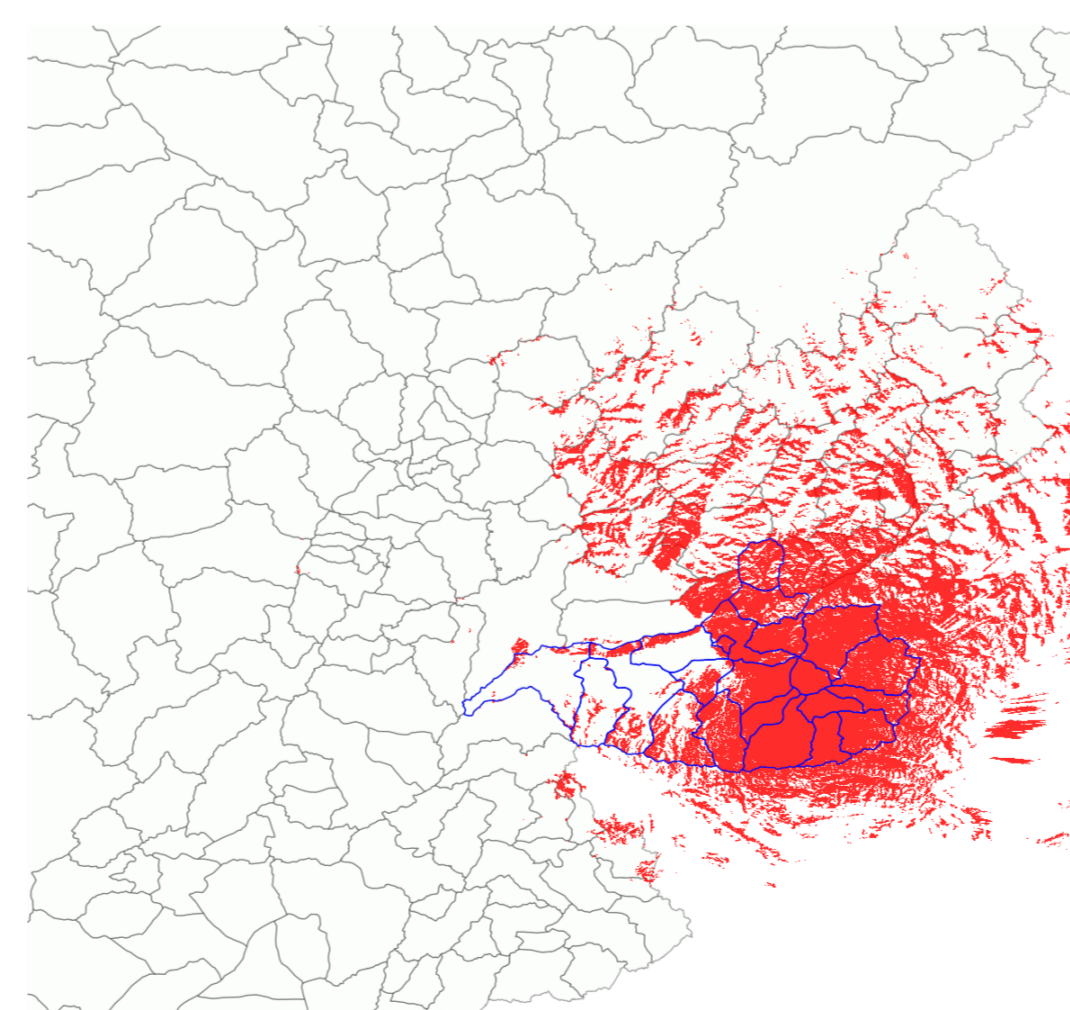
- Development aid and combatant support constitute the most important predictors of ISIS propaganda, not conflict, institutions, or local economic conditions.

Messaging at Home

We test for cross-sectional correlations between awareness of local propaganda and public opinion outcomes. Survey respondents aware of more local ISIS propaganda express greater approval for the group's arrival, group's respect for Afghan traditions.

Radio Tower To strengthen identification, we use an ISIS tower established (and subsequently destroyed) in East Afghanistan to calculate the Longley-Rice model for radio propagation (Irregular Terrain Model, ITM). For our estimation we use a difference-in-differences (DiD) approach.

ISIS Radio Tower Signal

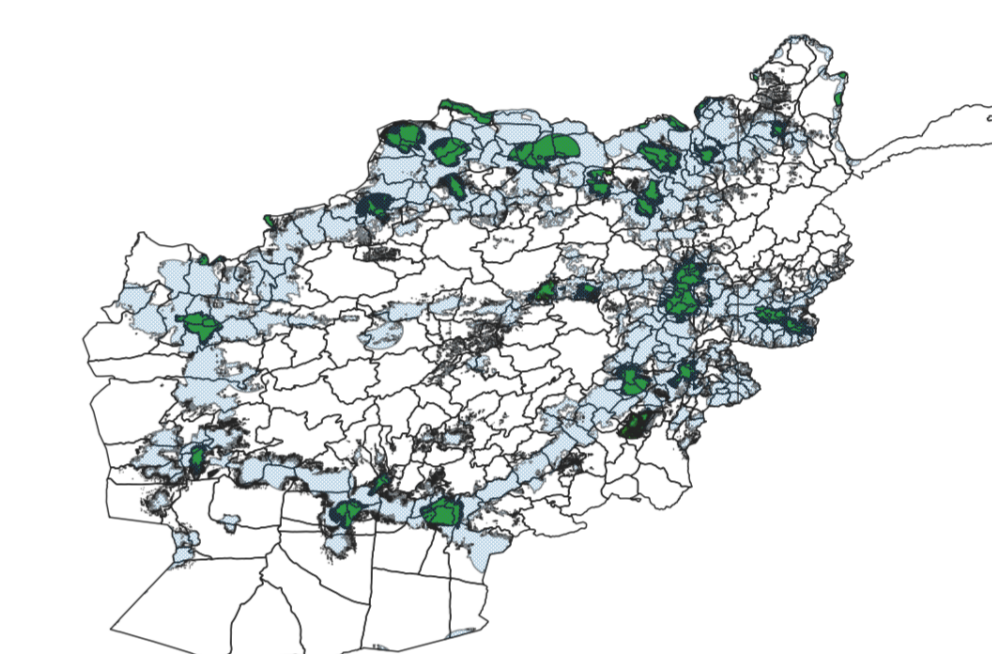


Messaging from Abroad

We then begin to explore differences in reception between locally targeted propaganda efforts and global media campaigns.

1. **Mobile access** We begin this analysis by running a simple regression model investigating the impact of global video releases on household approval of ISIS. We interact our measure of video release with cross-sectional variation in access to mobile networks.
 - We do not find strong evidence for a differential impact of ISIS videos on attitudes towards ISIS among households with 3G access. On the other hand, we find evidence that ISIS videos with popular global reach do in fact influence local perceptions in Afghanistan.

Mobile Network Coverage: GSM and 3G



2. **Within Wave Study** To strengthen identification we next investigate the short-term impact of global videos by exploiting the exact dates of video release and survey enumeration. We use dates to link each individual in our survey to the number of videos released the day before their interview (within district, within wave variation):
 - When more videos are released just prior to the survey enumeration date, respondents tend to report a lower approval rating for ISIS. However, respondents' opinion on whether ISIS respects Afghan traditions do not seem to vary according to video release.
3. **Heterogeneous effects**
 - We find no evidence to suggest the impact of global propaganda videos on local perceptions of ISIS varies according to age, gender, educational attainment, or ethnicity. Conversely, we find the impact of ISIS videos to be strongest in rural districts and ethnic fractionalization and polarization to mitigate the adverse impact of global propaganda efforts on local support for ISIS.

References

- [1] Maja Adena, Ruben Enikolopov, Maria Petrova, Veronica Santarosa, and Ekaterina Zhuravskaya. Radio and the Rise of Nazis in Prewar Germany. *The Quarterly Journal of Economics*, 130(4):1885–1939, 2015.
- [2] Alex Armand, Paul Atwell, and Joseph F Gomes. The Reach of Radio: Ending Civil Conflict through Rebel Demobilization. *American Economic Review*, 110(5):1395–1429, 2020.
- [3] Stefano DellaVigna, Ruben Enikolopov, Vera Mironova, Maria Petrova, and Ekaterina Zhuravskaya. Dellavigna et al. *American Economic Journal: Applied Economics*, 6(3):103–32, 2014.
- [4] Stefano DellaVigna and Ethan Kaplan. The Fox News Effect: Media Bias and Voting. *The Quarterly Journal of Economics*, 122(3):1187–1234, 2007.
- [5] Ruben Enikolopov, Maria Petrova, and Ekaterina Zhuravskaya. Media and Political Persuasion: Evidence from Russia. *American Economic Review*, 101(7):3253–85, 2011.
- [6] Alan S Gerber, Dean Karlan, and Daniel Bergan. Does the Media Matter? A Field Experiment measuring the Effect of Newspapers on Voting Behavior and Political Opinions. *American Economic Journal: Applied Economics*, 1(2):35–52, 2009.
- [7] Tamar Mitts. From Isolation to Radicalization: Anti-muslim Hostility and Support for ISIS in the West. *American Political Science Review*, 113(1):173–194, 2019.
- [8] Tamar Mitts, Gregoire Phillips, and Barbara F. Walter. Studying the Impact of ISIS Propaganda Campaigns. (forthcoming) 2021.
- [9] Konstantin Sonin and Austin L Wright. Information Operations Increase Civilian Security Cooperation. *University of Chicago, Becker Friedman Institute for Economics Working Paper*, (2019-130), 2019.