

ONLINE APPENDIX: “Islamists and Nationalists”

October 30, 2014

Contents

| | | |
|----------|--|-----------|
| 1 | North Caucasus Violent Events Data | 2 |
| 1.1 | Automated event coding | 2 |
| 1.2 | Actors | 3 |
| 1.3 | Tactics | 9 |
| 1.4 | Targets | 9 |
| 1.5 | A four-tiered typology of Islamist violence | 9 |
| 1.6 | A two-tiered typology of government violence | 15 |
| 1.7 | Reliability of automated event coding | 16 |
| 2 | Variable descriptions for aggregated data | 18 |
| 2.1 | Geographic locations and dates | 18 |
| 2.2 | Conflict dynamics | 19 |
| 2.3 | Control variables | 21 |
| 3 | Summary statistics | 22 |
| 4 | Regression tables, robustness checks and matching balance | 27 |
| 4.1 | Autologistic regressions (all four definitions) | 27 |
| 4.2 | Matched Analysis | 36 |
| 4.3 | Sensitivity Analysis: Alternative Model Specifications | 42 |
| 4.4 | Sensitivity Analysis: Time Effects | 47 |
| 4.5 | Sensitivity Analysis: Local and Federal Forces | 56 |
| 4.6 | Sensitivity Analysis: Alternative Definitions of Selective Tactics | 58 |

1 North Caucasus Violent Events Data

We use a new dataset of violent incidents in the Russian North Caucasus. The panel dataset is based on monthly observations across 7,584 municipalities in 200 districts (rayons) of the seven autonomous republics of the North Caucasus, and two adjacent regions (oblasts).¹ The sample of villages and towns is universal, encompassing all populated places within these regions, as listed in the National Geospatial-Intelligence Agency’s GEOnet Names Server (GNS). For each week between July 2000 and December 2011, we measured the incidence and number of violent events in each village through automated text mining of the independent Memorial Group’s “Hronika nasiliya [Chronicle of Violence]” event summaries (Memorial, 2009). The date range excludes the conventional phase of the war (mid-1999 to mid-2000), and includes only the period following Russia’s reoccupation of Grozny and the transition of the conflict into an irregular, guerrilla war. The conventional, urban phase of the conflict is not included in our study entirely.

We used fuzzy string matching to geocode these violent events to the municipalities in sample, so as to account for alternate spellings in Russian and a host of local languages. The dataset includes micro-level information on the dates, geographic coordinates, participants, and casualties of episodes of political violence and other forms of unrest distributed across these geographical units. The following appendix provides a description of the data collection strategy, coding rules, dynamic road network estimation, aggregation and summary statistics.

1.1 Automated event coding

A few words are in order about the data collection strategy and selection criteria used in support of our analysis. Since the original Memorial data are in raw text format, we used automated text analysis to mine the Memorial timeline for the dates, locations, actors involved, casualty tolls, and types of incidents. The data extraction strategy we employed differs from traditional automated approaches in several ways. First, dictionary-based event coding algorithms typically use parsing techniques or pattern recognition to code incidents in a “who-does-what-to-whom” format, of which category typologies like VRA and TABARI are prime examples (Schrodt and Gerner, 1994; Schrodt, 2001; Gerner et al., 2002; King and Lowe, 2003; Shellman, 2008). We opted for a somewhat simpler approach based on Boolean association rules and indexing algorithms (Han and Kamber 2001, 230-236; Kim, Aronson and Wilbur 2001). While not appropriate for all applications, this approach is far more efficient for data-mining highly structured event summaries of the sort that comprise the Memorial timeline – where all entries are of approximately the same length (1-2 sentences) and content (date, location, what happened, who was involved). Second, while various studies have shown that reliance on a single news source in events data analysis can mask important inferences and differences in media reporting, most previous uses of events data have relied on only one news source (Reeves, Shellman and Stewart, 2006; Davenport and Stam, 2006; Davenport and Ball, 2002). The advantage of Memorial’s event summaries is that they compile daily reports from Russian independent human rights organizations and NGOs (26.5 percent), state-owned wire services (25 percent), private wire services (19.9 percent), private newspapers and broadcast media (14.3 percent), official government sources (12.6 percent), and international news sources (1.7

¹In alphabetical order, the republics are Adygea, Chechnya, Dagestan, Ingushetia, Kabardino-Balkaria, Karachaevo-Cherkessiya, and North Ossetia. The two oblasts are Krasnodar Kray and Stavropol Kray. The aggregated dataset includes 200 rayons \times 628 weeks = 125,600 rayon-week observations.

percent), permitting a diverse approach to corpus building which reduces the risk of reporting bias.²

From these raw data, we used the Text Mining (tm) package in the R statistical language to assemble a corpus of 63,673 text documents, perform natural language processing (removing word order and Russian stop words) and create a document-term matrix (Feinerer, 2008; Feinerer, Hornik and Meyer, 2008). We used two custom dictionaries to code events and automatically georeference them against the U.S. National Geospatial Intelligence Agency’s database of 7,584 municipalities (i.e. cities, towns, villages, and populated places) in the seven North Caucasus Republics (Dagestan, Chechnya, Ingushetia, North Ossetia, Kabardino-Balkaria, Karachaevo-Cherkesiya, Adygea) and two adjacent majority Russian regions (Stavropol’skiy Kray and Krasnodarskiy Kray).

Of the 63,673 records in Memorial’s timeline, 34,595 were reports of a historical nature, press statements, and other entries not addressing specific incidents of violence or their geographical locations. Of the remaining 29,078, a large subset referenced multiple events, or multiple locations – a situation that generates some risk of false positives and double counts, which we addressed in subsequent reliability tests (more on this below). In all, we identified 43,336 violent events in 7,584 municipalities between January 2000 and April 2012, representing as close to a universal sample of state and nonstate violence in Russia as open sources currently permit – compared with just 925 Russian events for the entire post-Soviet period in the Global Terrorism Database (LaFree and Dugan, 2007), 14,177 events in the North Caucasus data collected by O’Loughlin and Witmer (2011) and O’Loughlin, Holland and Witmer (2011), and 28,102 events analyzed by Zhukov (2012). We were able to geocode 68% of these events at the municipality level and the remainder at the rayon (district) or oblast (province) level. Because the Memorial event summaries are updated both in real time and retroactively, we narrowed the period of observation to the months for which the journalistic record is relatively complete: July 2000 - December 2011.

To classify the events into categories of theoretical interest (i.e. Islamist vs. nationalist violence, selective vs. indiscriminate violence), we adopted an “actor-tactic-target” coding scheme, with custom dictionaries for all three categories.

1.2 Actors

We distinguish between two meta-categories of conflict actors: insurgent (rebel) and government (incumbent). Within the first of these groups, we sought to distinguish between Islamist and nationalist forces. We did so by enumerating the most well-known non-state militant organizations – in Russian parlance, *nezakonnyye vooruzhennyye formirovaniya* (NVF), or unlawful armed groups – active in the North Caucasus between 2000 and 2012, as well as their key leadership figures and chains of command.

Insurgents

- **Armed Forces of the Chechen Republic of Ichkeria (ChRI)** (1991-). Zelimhan Yandarbiev, Aslan Mashadov, Il’jas Ahmadov, Vaha Arsanov, Turpal-Ali Atgeriev, Arbi Baraev, Movsar Baraev, Ruslan Gelaev, Achimez Gochijayev, Ahmed Zakaev, Abdul-Malik Mezhidov, Hozh-Ahmed Nuhaev, Salman Raduev, Lecha Dudaev, Rasul Makasharipov, Rappani Halilov,

²A natural concern with this, like all disaggregated events datasets, is that media are more likely to report incidents located in accessible areas (Raleigh and Hegre, 2009, 234). This problem is addressed somewhat by Memorial’s reliance on reports from human rights observers and local independent sources – who benefit from greater access to isolated areas than mass media organization with relatively few local ties.

Il'gar Mallochiev, Umar Shejhulaev, Umalat Magometov, Ruslan Hajhoroiev, Ruslan Alihadzhiev, Hunkar-Pasha Israpilov, Aslambek Abdulhadzhiev, Apti Batalov, Dalhan Hozhaev, Hizir Hachukaev, Magomed Hambiev, Aslanbek Ismailov, Adam Dekkushev, Salaudin Timirbulatov, Said-Magomed Chupalaev, Baudi Bakuev, Arbi Jovmirzaev

ChRI was the main Chechen nationalist separatist group fighting Russian federal forces during the first Chechen War of 1994-1996 and the second war, beginning in 1999. ChRI leadership defined the organization's aim mostly in defensive terms, citing the withdrawal of Russian forces and the establishment of an independent Chechen state as the main objectives of the war. Top leadership publicly distanced itself from international terrorist groups, and was resistant to efforts by Islamist factions to spread the war beyond Chechnya's borders, to other parts of the Caucasus and Russia. In a 2003 interview, ChRI president Aslan Maskhadov summarized ChRI's objectives,

The war will end when those who brought the war will leave... Terror is not our method. We never set any goals, which could be accomplished through terrorist actions. The goals sought on the international arena by international terrorists are diametrically opposed to those we seek. International terrorists seek various spheres of influence, fight to regain lost positions, create mischief for their rivals, breed chaos, etcetera. Chechens have but one request – that we be left alone. I regularly receive proposals to carry out military operations on Russian territory. So far the counterarguments have proven more compelling... I am convinced that someone in Moscow will sooner or later understand the futility of war in Chechnya, understand its destructive impact on Russia (*Aslan Maskhadov: 'Voyna zakonchitsa toga, kogda uydut te, kto prishel s voynoy'* [Aslan Maskhadov: 'The war will end when those who brought the war will leave'], 2003).

The question of Salafism created a divide within ChRI during the interwar period (1997-1999) between mostly secular nationalists like Maskhadov and his Independence Party on one side and a radical opposition led by Shamil Basaev, Salman Raduev and Zelimkhan Yandarbiev on the other. In early 1999, Maskhadov sought to divide and co-opt the Islamist opposition by proclaiming the Islamic Republic of Ichkeria and nominally adopting Sharia law. Even then, Maskhadov was eager to highlight local Sufi traditions as the basis for the new Islamic state, and rejected Salafiya (or *wahhabism* in Russian parlance) as a foreign import, incompatible with local traditions,

Chechnya will have its own Islamic state: not a Sudanese, or Arab, or Iranian state, but a Chechen state. This means that we will lean on traditional Islam – the one our ancestors gave to us. So in our Islamic state will maximally preserve the traditions, customs and lifestyle of our people. If a Chechen renounces his traditions, he is no longer a Chechen... *wahhabism* will not come to pass in Chechnya! Because traditional Islam won't let it. *Wahhabism* brings about fundamental contradictions. For *wahhabi* ideas to rise in Chechnya, it is necessary to first destroy all the Chechens. And no one has been able to do that yet. This is why all the money that Saudi Arabia and other governments spend on spreading *wahhabism* will go to the sand (Batuev, 1999).

- **ChRI Sharia Guard** (1992-). Abdul-Malik Mezhidov, Ruslan Gelaev.
- **Islamic International Peacekeeping Brigade (IMMB)** (1998-2001). Shamil Basaev, Hattab, Abu Hafs al'-Urdani.
- **Congress of the Peoples of Ichkeria and Dagestan (KNID)** (1998-). Shamil Basaev, Movladi Udugov, Bagautdin Kebedov.
- **Madzhlisul' Shura of the United Mujahideen Forces of the Caucasus** (2001-2002). Shamil Basaev, Hattab, Ramzan Akhmadov, Aslanbek Abdulhadzhiev.
- **Riyad us-Saliheyn** (2002-2006, 2009-). Shamil Basaev, Said Buryatsky, Aslan Byutukaev.

IMMB, KNID, Madzhlisul' Shura and Riyad us-Saliheyn are insurgent groups associated with the late Shamil Basaev, a political rival of Aslan Maskhadov within ChRI. Formally aligned with ChRI against Russian forces, these groups also saw the Chechen wars as part of a defensive, anti-colonial struggle ('We fight not for the sake of killing, but to defend our Freedom and Independence, our Faith and our way of life' (Basaev, 2005)). Yet Basaev disagreed with Maskhadov's goal of establishing a republican government in Chechnya, urging instead the creation of a fundamentalist Islamic state governed by Sharia law,

It is essential to adopt an Islamic position on all matters, especially in the organization of social life and forms of government for Muslims. We needn't fear accusations of 'radicalism' and 'extremism.' We must openly accuse *kafirs* of Satanism and not soften our tone with them... I propose the following:

- completely renounce structural and socio-political hierarchies incompatible with the principles of a Sharia state. I mean 'republic,' 'president,' 'parliament' and similar notions.
 - introduce Islamic concepts, use titles stipulated by Sharia, and establish a structural hierarchy of Mujahideen as Sharia recommends
 - conduct polemic with *kafirs* firmly and only from the position of Sharia, revealing their lying and invidious nature, not appealing to hypocritical infidel notions like 'human rights,' 'articles of the UN charter,' and the like
 - demand of the population their unconditional adherence to Sharia law
 - not strive to negotiate with infidels
- (Shamil Basaev: '*Nam nuzhen shariat, a ne prava cheloveka*' [Shamil Basaev: '*We need Sharia, not human rights*'], 2003).

Also unlike ChRI, Basaev's groups embraced terrorism as a tactic, claiming responsibility for – among dozens of other attacks – the 2004 Beslan school hostage crisis. Basaev also advocated expanding the conflict beyond Chechnya's borders,

We, *mujahideen*, are self-sufficient and fight not for public support, but for the blessing of Almighty Allah. We want to acquire Future life with our earthly life, giving preference to Allah and His prophet above all others. By the grace of Allah, we opened the Caucasus Front this year. Next year, *inshallah*, we will open the Moscow, Volga and Urals Fronts. The jihad is spreading and more nations in

bondage are coming to understand the necessity of unified liberation from Rusnya's imperial yoke. And we, *inshallah*, will definitely win in short time (Basaev, 2005).

- **Arab Mujahideen** (1995-). Hattab, Abu al'-Valid, Abu Hafs al'-Urdani, Muhannad, Abdulla Kurd, Abu-Kutejb, Abu Umar, Abu Omar as-Seyf, Abu Dzejt, Yasir Amarat, Mohmad Mohamad Shabaan.
- **Caucasus Front** (2005-). Abdul-Halim Sadulaev, Doku Umarov.
 - **Dzhamaat Shariat** (Dagestan). Rasul Makasharipov, Murad Lahijalov, Rappani Halilov, Il'gar Mollachiev, Umar Shejhulaev, Umalat Magomedov, Ibragim Gadzhidadaev, Magomedali Vagabov, Israpil Velidzhanov, Ibragimhalil Daudov, Rustam Asil'derov.
 - * **Derbent Dzhamaat**. Israpil Velidzhanov, Mehtibek Bashirov, Gasan Abdullaev.
 - * **Dzhundullah** (Hasavyurt). Ashab Bidaev, Arslan Jegizbaev, Adam Ahmedov, Hasan Danijalov, Ruslan Makavov, Jusup Magomedov, Aslan Mamedov, Artur Shapiulaev, Danijal Zargalov.
 - * **Kizil'yurt Dzhamaat**. Shamil' Magomednabiev, Jusup Magomedov, Magomed Dalgatov, Alibek Omarov, Temirbek Temirbekov, Gadzhimurad Dolgatov, Arsen Kuramagomedov.
 - * **Seyfullah** (Buynaksk). Abdulgafur Zakar'jaev, Nabi Migheddinov.
 - * **Gubden Dzhamaat** (Karabudakhkent). Magomedali Vagabov, Ibragimhalil Daudov, Tajmas Tajmasov.
 - * **Shamil'kala Dzhamaat** (Mahachkala). Shamil' Gasanov, Omar Ramazanov, Gadzhimurad Kamalutdinov, Marat Kurbanov, Alibek Abunazarov, Magomed Shejgov, Sabitbaj Amanov, Abdulla Magomedaliyev, Zulpukarov Jel'dos, Gusejn Mamaev.
 - * **Gimry Dzhamaat**. Ibragim Gadzhidadaev.
 - * **Levash Dzhamaat**. Rabbani, Zaypulla Gazimagomedov.
 - * **Kadar Dzhamaat**. Ismail Ichakaev, Dzhamaltin Dzhavatov, Jahja Aslanov, Badrudin Salimov, Dzhamal Abuev.
 - * **Shuaybkala Dzhamaat**. Sheykh Abdusalam.
 - * **Kadar Dzhamaat**. Mahach Idrisov, Rustam Gasanov.
 - **Dzhamaat Yarmuk** (Kabardino-Balkaria). Muslim Ataev, Rustam Bekanov, Artur Mukozhev, Adamej Dzhappuev, Anzor Astemirov, Asker Dzhappuev, Alim Zankishiev, Timur Tatchaev, Ruslan Batyrbekov.
 - * **Baksan Dzhamaat**. Kazbek Tashuev.
 - **Dzhamaat Galgayche** (Ingushetia). Il'jas Gorchhanov, Ahmed Yevloev, Ali Taziev, Ilez Gardanov, Isa Hashagul'gov, Dzhamalejl Mutaliev, Adam Cyzdoev
 - **Muslim Society No. 3** (Karachaevo-Cherkessia). Adam Semyonov, Magomed Bidzhiev, Ramazan Borlakov, Achemez Gochiyaev, Ruslan Hubiev, Bagautdin Kebedov..
 - **Nogay Battalion** (Stavropol' Kray). Amir Azhmambetov, Amir Ali Aminov, Rasul Tambulatov, Ulubi Elgushiev.
 - **Kataib al-Houl** (North Ossetia). Alan Digorsky.
 - **Adygey Sektor** (Adygea).

- **Krasnodar Sektor** (Krasnodar Kray).
- **Caucasus Emirate** (2007-). Doku Umarov, Supyan Abdullayev, Ahmed Yevloyev, Anzor Astemirov, Muhannad, Said Buryatskiy, Hussein Gakayev, Aslambek Vadalov, Tarkhan Gaziyeu, Usman Mintsigov.
 - **Vilayat Dagestan**. Umalat Magomedov.
 - **Vilayat Nohchiycho** (Chechnya). Aslambek Vadalov, Tarkhan Gaziyeu, Alsan Izrailov, Islam Uspahadjiev, Zaurbek Avdorhanov, Rahman Shabanov, Mahran Saidov, Muslim Gakaev.
 - **Vilayat Galgayche** (Ingushetia). Ahmed Yevloyev.
 - **Vilayat of Kabarda, Balkar and Karachay**. Anzor Astemirov, Ratmir Shameev.
 - **Vilayat Cherkessia** (Adygea, Krasnodar Kray, parts of Karachaevo-Cherkessia).
 - **Vilayat Nogay** (Stavropol' Kray).

The Caucasus Front and Caucasus Emirate are explicitly Salafi-Jihadist insurgent groups, which view their goal as establishing an Islamic state on the territory of Russia's North Caucasus and beyond. Rather than merely seeking the withdrawal of Russian troops from Chechnya, like the nationalist ChRI, these groups reject all civil laws and political borders between Muslims, and frame their struggle as part of a global campaign to unite the Umma. In an announcement proclaiming the establishment of the Caucasus Emirate in 2007, Doku Umarov wrote,

I announce to all Muslims that I am waging the war against infidels under the banner of 'La ilaha illa Allah.' It means that I, the Amir of Mujahideen in Caucasus, reject everything associated with *taghut* [false deities]. I reject all *kafir* laws established in the world. I reject all laws and systems established by infidels in the land of Caucasus. I reject and declare outlawed all names used by infidels to divide Muslims. I declare outlawed ethnic, territorial and colonial zones carrying names of 'North-Caucasian republics,' 'Trans-Caucasian republics' and such like...

I don't think that it is necessary to draw the borders of the Caucasus Emirate. Firstly, because Caucasus is occupied by *kuffar* and apostates and is Dar al-Harb, the territory of war, and our nearest task is to make Caucasus Dar as-Salam, establishing the Shariah in its land and expelling the *kuffar*. Secondly, after expelling the *kuffar* we must reconquer all historical lands of Muslims, and these borders are beyond the boundaries of Caucasus...

We are an inseparable part of the Islamic Ummah. I am saddened by the position of those Muslims who declare as their enemies only those *kuffar* who attacked them directly. And at the same time they seek support and sympathy from other *kuffar*, forgetting that all infidels are one nation. Today in Afghanistan, Iraq, Somalia, Palestine our brothers are fighting. Everyone who attacked Muslims wherever they are are our enemies, common enemies. Our enemy is not Rusnya only, but everyone who wages war against Islam and Muslims. And they are our enemies mainly because they are the enemies of Allah (Umarov, 2007).

Government

We compiled a similar actor dictionary for government forces:

- **Joint Task Force for Counterterrorist Operations** (1999-). Viktor Kazancev, Gennadij Troshev, Aleksandr Baranov, Valeriy Baranov, Vladimir Moltenskoy, Sergey Makarov, Mihail Pan'kov, Vjacheslav Dadonov, Evgeniy Lazebin, Evgeniy Barjaev, Yakov Nedobitko, Nikolay Sivak, Sergej Melikov.
- **Ministry of Defense.**
 - **Ground Forces** (SV).
 - **Airborne Forces** (VDV).
 - **Special Purpose** (Spetznaz).
 - * **Main Intelligence Directorate** (GRU).
 - * **Airborne Forces** (45th Separate Reconnaissance Regiment).
- **Ministry of Interior** (MVD)
 - **Interior Troops** (VV).
 - **Special Rapid Response Units** (SOBR).
 - **Special Purpose Police Forces** (OMON).
 - **Main Directorate of Road Traffic Safety** (GIBDD/GAI).
 - **Directorate for Organized Crime** (UBOP).
 - **Regional and Municipal Departments of Internal Affairs** (GUVD/ROVD).
- **Intelligence and Security Forces**
 - **Federal Security Service** (FSB).
 - * **Group “Alpha”**.
 - * **Group “Vypel”**.
 - **Federal Border Service** (FPS).
 - **Federal Drug Control Service** (FSKN).
- **Republic of Chechnya (pro-Moscow)** (2003-). Ahmat Kadyrov, Alu Alhanov, Ramzan Kadyrov, Umar Avturhanov, Doku Zavgaev, Ruslan Labazanov, Sulim Yamadaev, Dzhabrail Yamadaev, Ruslan Jamadaev, Said-Magomed Kakiev, Bislan Gantamirov.
 - **Battalion “Vostok” (East)**. Sulim Yamadaev, Dzhabrail Yamadaev.
 - **Battalion “Zapad” (West)**. Said-Magomed Kakiev.
 - **Presidential Guard** (Kadyrovtsy). Ramzan Kadyrov.
 - * **Battalion “Yug” (South)**. Anzor Magomadov.
 - * **Battalion “Sever” (North)**. Alimbek Delimhanov.

1.3 Tactics

We distinguish between two meta-categories of targets: insurgent tactics (including guerrilla tactics and terrorism) and government counterinsurgency tactics. Within the second of these groups, we sought to distinguish between selective and indiscriminate violence.

- **Insurgent tactics.** Bombing (vehicle-borne, roadside, suicide), light arms fire, rocket-propelled grenade attack, terrorist attack, ambush, hit-and-run, drive-by shooting, ethnic cleansing, hostage-taking, abduction, kidnapping.
- **Government tactics: selective.** Arrest, light arms fire, weapons cache seizure, interdiction, abduction.
- **Government tactics: indiscriminate.** Air strike, artillery shelling, armored assault, cordon-and-search (*zachistka*), weapons of mass destruction, counter-terrorism operation (KTO).³

1.4 Targets

We distinguish between two meta-categories of targets for insurgent attack: civilian and government. Within the civilian group, we sought to identify targets of particular religious significance.

- **Civilian.** Women, children, elderly, hospitals and clinics, primary and secondary schools, universities, wedding parties, funeral processions, sporting events, farms, tourists, shops, restaurants, gas stations, markets, construction sites, factories, power stations, truck stops, hotels, private homes, banks, law offices, journalists.
 - **Civilian targets of religious significance.** Forbidden institutions (alcohol-selling businesses, bars, liquor stores, non-halal restaurants, bathhouses, strip clubs, pornography shops, brothels), Sufi institutions (mosques, clergy, worshippers), non-Muslim institutions (Christians, Jews, churches, synagogues, denominational cemeteries, shrines and holy sites).
- **Government.** Police checkpoints and roadblocks, military forces, law enforcement and military personnel, municipal and republican administration officials, legislators, judges, prosecutors.

1.5 A four-tiered typology of Islamist violence

We used the actor-tactic-target framework to construct four definitions of Islamist violence: expansive, intermediate, limited, and target-based. The following section outlines these categories in detail and provides illustrative examples.

Expansive: The expansive definition uses the broadest array of actors, including specific armed groups with self-proclaimed Islamist ideologies or political objectives, as well as the involvement of a more nebulous assortment of Salafists and “Wahhabis” (self-identified, or so identified

³KTO is defined in Russian law as “a combination of special-purpose, operational, combat and other measures involving military hardware, weapons and special means to prevent a terrorist act, neutralize terrorists, provide security to physical persons, organizations and institutions, as well as minimizing the consequences of a terrorist act,” Federal Law of Russian Federation from 6 March 2006, No. 35-F3, “On countermeasures to terrorism.”

by officials or reporters), Islamic organizations, charities and clerical elites. Any use of force by any of these actors, directed against any government or civilian target classifies as an Islamist attack under the expansive definition.

- Under this definition, an act of **Islamist violence** must involve at least one of the following *actors*: IMMB, ChRI Sharia Guard, Arab Mujahideen, Caucasus Front, Caucasus Emirate, as well as any unknown or unidentified non-state armed group (NVF) that proclaimed Islamist objectives, used Salafist rhetoric during or after the incident, or was described by government or media sources as “Wahhabi”; any *tactic* listed above under “insurgent tactics”; against any civilian or government *target*. This category also includes any suicide terrorist attack without a claim of responsibility.
- An act of **nationalist violence** must involve at least one of the following *actors*: ChRI Armed Forces, as well as any unknown or unidentified non-state armed group (NVF) that proclaimed separatist or nationalist objectives, and was not reported to have used religious rhetoric during or after the incident; any *tactic* listed above under “insurgent tactics”; against any civilian or government *target*.

Intermediate: The intermediate definition trims this list down to include only the set of institutional actors formally seeking the establishment of a regional Emirate through the use of force – Dzhamaat groups unified under the Caucasus Front, Arab mercenary units, and various Islamic units of the Chechen Republic of Ichkeria’s armed forces (e.g. the ChRI’s Sharia Guard).

- Under this definition, an act of **Islamist violence** must involve at least one of the following *actors*: IMMB, ChRI Sharia Guard, Arab Mujahideen, Caucasus Front, Caucasus Emirate; any *tactic* listed above under “insurgent tactics”; against any civilian or government *target*.
- An act of **nationalist violence** must involve at least one of the following *actors*: ChRI Armed Forces, as well as any unknown or unidentified non-state armed group (NVF) that proclaimed separatist or nationalist objectives, and was not reported to have used religious rhetoric during or after the incident; any *tactic* listed above under “insurgent tactics”; against any civilian or government *target*.

Limited: In the Caucasus as elsewhere, the dividing line between Islamist and nationalist units is not always clear. In both the expansive and intermediate definitions, cases of overlap with nationalist attacks (e.g. actions by Islamic units of the otherwise secular movements, like the ChRI’s Sharia Guard) were treated as Islamist incidents. The limited definition drops this inclusion rule, and treats overlap cases as nationalist rather than Islamist incidents.

- Under this definition, an act of **Islamist violence** must involve at least one of the following *actors*: IMMB, Arab Mujahideen (post-2006),⁴ Caucasus Front, Caucasus Emirate; any *tactic* listed above under “insurgent tactics”; against any civilian or government *target*.

⁴Prior to 2006, Arab Mujahideen operated under the nominal command of the ChRI Armed Forces. After 2006, the Mujahideen began operating under the nominal command of the Caucasus Front.

- An act of **nationalist violence** must involve at least one of the following *actors*: ChRI Armed Forces, ChRI Sharia Guard, Arab Mujahideen (pre-2006), as well as any unknown or unidentified non-state armed group (NVF) that proclaimed separatist or nationalist objectives, and was not reported to have used religious rhetoric during or after the incident; any *tactic* listed above under “insurgent tactics”; against any civilian or government *target*.

Target-based: Finally, the target-based definition sets even more restrictive conditions, where the targets of an attack must be institutions deemed forbidden, impure, undesirable or otherwise foreign according to certain interpretations of scripture (e.g. liquor stores, strip clubs). This category might be thought of as religious vigilantism in which the perpetrators were seeking to rectify some sort of moral turpitude.

- Under this definition, an act of **Islamist violence** must involve at least one of the following *actors*: IMMB, ChRI Sharia Guard, Arab Mujahideen, Caucasus Front, Caucasus Emirate, as well as any unknown or unidentified non-state armed group (NVF) that proclaimed Islamist objectives, used Salafist rhetoric during or after the incident, or was described by government or media sources as “Wahhabi”; any *tactic* listed above under “insurgent tactics”; against any *target* listed above as having “religious significance” (alcohol-selling businesses, bars, liquor stores, non-halal restaurants, bathhouses, strip clubs, pornography shops, brothels, Sufi mosques, clergy, worshippers, Christians, Jews, churches, synagogues, denominational cemeteries, shrines and holy sites).
- An act of **nationalist violence** must involve at least one of the following *actors*: ChRI Armed Forces, as well as any unknown or unidentified non-state armed group (NVF) that proclaimed separatist or nationalist objectives, and was not reported to have used religious rhetoric during or after the incident; any *tactic* listed above under “insurgent tactics”; against any civilian or government *target*, except those listed above as having “religious significance.”

Figure 1 shows this typology graphically.
Several examples follow.

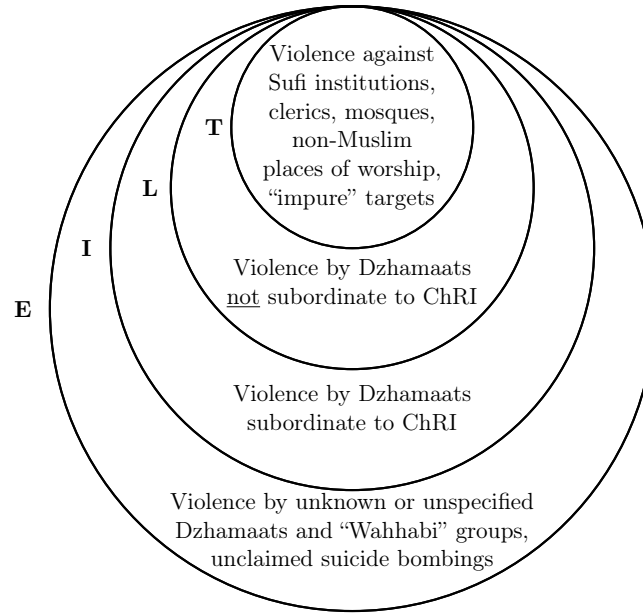
Example 1

| Islamist violence | | | |
|-------------------|--------------|---------|--------------|
| Expansive | Intermediate | Limited | Target-based |
| ✓ | | | |

The following event report is classified as a case of Islamist violence under the **expansive** definition, but not the **intermediate** definition.

Original: Примерно 23:00 на западной окраине ст. Ассиновская Сунженского района ЧР неизвестными лицами из автоматического оружия и гранатометов было обстреляно здание военной комендатуры. По словам местных жителей нападавшие сопровождали свои действия криками “Аллах акбар.” Обстрел продолжался в течение 7-10 минут. В ходе обстрела – как со стороны нападавших, так и со стороны военных – убитых или раненных нет.

Figure 1: **Four-tiered typology of Islamist violence.** E: expansive; I: intermediate, L: limited, T: target-based.



Translation: At approximately 23:00 on the western outskirts of Assinovskaya village in Sunzhenskiy rayon, Chechen Republic, unknown persons opened automatic and rocket propelled grenade fire on a military command post. According to local residents, the attackers accompanied their actions with screams of “Allah akbar.” The assault lasted 7-10 minutes. No one was killed or wounded during the assault – on either the attackers’ side, or the military side. [Event ID: 12106; Date: 20041216]

Comment: the perpetrators of the assault are unknown, apart from the fact that they used religious rhetoric (“Allah akbar”) during the attack. Therefore, the event classifies as Islamist violence under the expansive, but not the intermediate definition.

Example 2

Islamist violence

| Expansive | Intermediate | Limited | Target-based |
|-----------|--------------|---------|--------------|
| ✓ | | | |

The following event report is also classified as Islamist violence under the **expansive** definition, but not the **intermediate** definition.

Original: Один человек погиб и восемь ранено в результате подрыва смертника в Назрани.

Translation: One person has died and eight are wounded as a result of suicide bombing in Nazran. [Event ID: 42056; Date: 20090912]

Comment: the report records a suicide bombing, without a claim of responsibility. Therefore, it classifies as Islamist violence under the expansive, but is too broad to be covered by the intermediate definition.

Example 3

Islamist violence

| Expansive | Intermediate | Limited | Target-based |
|-----------|--------------|---------|--------------|
| ✓ | ✓ | | |

The following event report is classified as Islamist violence under the **intermediate** definition, but not the **limited** definition.

Original: 22 марта на рассвете у с. Селментаузен в горнолесистой местности произошел бой между группой армейской разведки и чеченскими вооруженными формированиями ЧРИ. Трое участников ВФ ЧРИ убиты на месте, двое захвачены в плен. Их группа входила в состав алероевского джамаата, который подчиняется Амиру Хаттабу. Двое разведчиков получили ранения.

Translation: At dawn on 22 March, near the village of Selmentauzen in a mountainous and forested area, a firefight took place between a military intelligence unit and Chechen armed formations from ChRI. Three members of the ChRI Armed Forces were killed on the spot, two were captured. Their group was part of the Alleroy Dzhamaat, which is subordinate to Amir Hattab. Two intelligence officers were wounded. [Event ID: 3669; Date: 20020322]

Comment: the report is of a firefight involving a Dzhamaat group subordinate to ChRI. Therefore, it classifies as Islamist violence under the intermediate definition, but as **nationalist** violence under the limited definition.

Example 4

Islamist violence

| Expansive | Intermediate | Limited | Target-based |
|-----------|--------------|---------|--------------|
| ✓ | ✓ | ✓ | |

The following event report is classified as Islamist violence under the **limited** definition, but not the **target-based** definition.

Original: 21 мая, около 20:30 на ул. Тухачевского Грозного произошел подрыв фугаса, в результате которого погиб мужчина производивший его закладку. На месте подрыва был обнаружен паспорт гражданина РФ Руслана Алиевича Иналова 1972 г. р., проживающего в с. Комсомольское. В ходе первичных оперативноследственных мероприятий установлено, что человек изображенный на фотографии в документе возможно являясь эмиром джамаата, полевым командиром Халидом Седаевым, который подозревается в организации 18 апреля 2002 г. теракта против сотрудников чеченского ОМОНа.

Translation: 21 May, around 20:30 on Grozny’s Tuhachevsky street, a roadside bomb exploded, killing the man planting it. At the explosion’s location, [authorities discovered] a passport belonging to Russian Federation citizen Ruslan Alievich Inalov, born in 1972, residing in the village of Komsomol’skoe. Initial investigation established that the man photographed in the document is possibly an Emir of a Dzhamaat, the field commander Halid Sedaev, who is suspected in the organization of an 18 April 2002 terrorist attack against personnel from the Chechen OMON. [Event ID: 4017; Date: 20020521]

Comment: the report is of an attempted roadside bombing by a Dzhamaat, but there is no information suggesting that the intended target of the bombing was from the “religiously significant” list above. Therefore, it classifies as Islamist violence under the limited, but not the target-based definition.

Example 5

Islamist violence

| Expansive | Intermediate | Limited | Target-based |
|-----------|--------------|---------|--------------|
| ✓ | ✓ | ✓ | ✓ |

The following event report is classified as Islamist violence under the **target-based** definition.

Example: Несколько часов назад неизвестные вооруженные лица совершили нападение на отдыхающих сауны расположенной у так называемого Малсаговского рынка в Назрани. Несколько вооруженных людей вошли в баню, положили на землю всех отдыхающих и обслуживающий персонал, производили беспорядочные выстрелы из автоматов и требовали от людей жить по законам Ислама а не пьянствовать и развлекаться. “Если еще раз мы узнаем, что здесь продолжают пиянство и разврат, в живых никого не оставим а баню подожжем. Это – первое предупреждение,” заявил один из нападавших. После этого, вооруженная группа покинула сауну.

Translation: Several hours ago, unidentified armed men carried out an attack on a sauna near the Malsagov market in Nazran. Several armed men entered the banya, laid all patrons and attendants on the ground, set off several indiscriminate bursts of automatic gunfire and demanded that people live according to the laws of Islam, instead of [indulging in] drinking and entertainment. “If we once again learn that drunkenness and debauchery take place here, we won’t leave anyone alive and will set the banya on fire. This is a first warning,” declared one of the attackers. After that, the armed group left the sauna. [Event ID: 27426; Date: 20071031]

Comment: the target of the reported attack is among the “forbidden institutions” listed above (alcohol-serving bathhouse). The language used by the attackers is also a clear illustration of “moral vigilantism.” Therefore, it classifies as Islamist violence under the target-based definition.

Example 6

Islamist violence

| Expansive | Intermediate | Limited | Target-based |
|-----------|--------------|---------|--------------|
| ✓ | ✓ | ✓ | ✓ |

The following event report is also classified as Islamist violence under the **target-based** definition.

Example: Примерно в 2:30 в г. Назрань неизвестные бросили гранату в дом имама центральной мечети Назрани Хизира Цолоева. Тогда же был произведен выстрел из гранатомета по дому другого известного религиозного деятеля – муллы Сейфудина Цолоева. В результате никто не пострадал.

Translation: At approximately 2:30 in Nazran, unknown persons threw a grenade into the home of the imam of the Nazran central mosque, Hizir Tsoloev. At the same time, there was a rocket-propelled grenade attack on the home of another well-known religious figure – mulla Seifudin Tsoloev. There were no casualties. [Event ID: 22628; Date: 20070208]

Comment: the targets of the reported attacks are Sufi clerics. Sufi clerics in the North Caucasus are closely associated with traditional (pro-government) religious institutions, and are considered by the Salafi-Jihadist opposition as apostates. Therefore, it classifies as Islamist violence under the target-based definition.

Example 7

Nationalist violence

| Expansive | Intermediate | Limited | Target-based |
|-----------|--------------|---------|--------------|
| ✓ | ✓ | ✓ | ✓ |

The following event report is classified as nationalist violence under the **expansive**, **intermediate**, **limited** and **target-based** definitions.

Example: 4 апреля ночью вблизи с. Дуба-Юрт ВФ ЧРИ подвергли нападению блокпост расположенный у входа в Аргунское ущелье. Стрельба продолжалась более одного часа, ранены двое сотрудников Бурят-ского ОМОН.

Translation: On the night of 4 April, near the village of Duba-Yurt the ChRI Armed Forces attacked a checkpoint near the entrance to the Argun gorge. The firefight lasted over an hour, wounding two Buryat OMON personnel. [Event ID: 3742; Date: 20020404]

Comment: the report cites an attack by the Chechen separatist ChRI. No information suggests that the unit in question was among the Islamist units under the ChRI's command. Therefore, it classifies as nationalist violence under any definition.

1.6 A two-tiered typology of government violence

We divided cases of government violence into ones where authorities employed only selective tactics like arrests, assassinations, kidnappings, and ones where they employed indiscriminate methods like artillery shelling, aerial bombardment and cordon-and-search operations.

Selective: Event must involve at least one of the following *actors*: Joint Task Force, Ministry of Defense (ground forces, airborne, spetznaz), Ministry of the Interior (VV, SOBR, OMON, GIBDD, UBOP, republican and municipal ministries), FSB, FPS, FSKN, pro-Russian Chechen security forces; **and** at least one of the following *actions*: arrest, light arms fire, weapons cache seizure, interdiction, abduction.

Example: В 5:00 в с. Ачхой-Мартан сотрудниками районного РОВД, бойцами ОМОНа ЧР совместно с военнослужащими ВВ МВД РФ проводилась спецоперация по захвату предполагаемых боевиков. В результате два подозреваемых были убиты, один получил ранение и задержан. Со стороны мирного населения и сотрудников силовых структур жертв нет.

Translation: At 5:00 in the village of Achhoy-Martan, service-members from the district ROVD and the Chechen Republic's OMON jointly carried out a special operation to capture suspected militants. As a result, two suspects were killed, one was wounded and captured. There were no casualties among the civilian population or security forces. [Event ID: 13372; Date: 20050320]

Indiscriminate: Event must involve at least one of the following *actors*: Joint Task Force, Ministry of Defense (ground forces, airborne, spetznaz), Ministry of the Interior (VV, SOBR, OMON, GIBDD, UBOP, republican and municipal ministries), FSB, FPS, FSKN, pro-Russian Chechen security forces; **and** at least one of the following *actions*: air strike, artillery shelling, armored assault, cordon-and-search, weapons of mass destruction, KTO, ethnic cleansing, other bombing.

Example: 5 февраля после 9.00 по с. Алхан-Кала Грозненского района нанесен артиллерийский удар. С различной степенью интенсивности снаряды рвались на территории населенного пункта не менее двух часов. В результате артобстрела ранены шесть человек. В восточной части села, непосредственно примыкающей к г. Грозному, были повреждены более десяти домов.

Translation: On 5 February after 9:00 an artillery strike was carried out on the village Alkhan-Kala, Groznenskiy district. With varying degrees of intensity, munitions continued to explode over the population center for no less than two hours. As a result of the artillery strike, six people were wounded. In the eastern section of the village, immediately adjacent to the city of Grozny, over ten homes were damaged. [Event ID: 1075; Date: 20010205]

1.7 Reliability of automated event coding

The reliability of content analysis as a data collection method can be separated into three components: (1) consistency, (2) replicability, and (3) accuracy (Weber, 1990, 17). While previous events datasets for the North Caucasus have relied on hand-coding of newspaper articles and incident reports (Lyall, 2009, 2010), there are several advantages to the automated approach employed here. Foremost among these advantages are consistency and replicability – both of which will be critical if the epidemic model is to be meaningfully extended to other cases. Hand-coded event data collection is extremely labor-intensive, involving months of tedious and painstaking work by large teams of undergraduate research assistants (King and Lowe, 2003, 618). Even with experienced coders following well-defined tasks and classification rules, inter-coder reliability can be notoriously low (Mikhaylov and Benoit, 2008). Humans have limited working memories and tend to rely on heuristics, resulting in informal, subjective and ad hoc decisions, not to mention broader risks associated with fatigue, inattention and prior knowledge of hypotheses (Grimmer and King, 2009, 4-5).

Automated coding is no panacea; it also requires a deep working knowledge of the subject matter in the construction of coding rules, and a considerable – though nowhere near as onerous – time investment in data collection, pre-processing and programming. Once these coding rules are established, however, the consistency of machine coding becomes 100% since the program is executing a fixed algorithm (Schrodt and Gerner, 1994). The replicability of the codings across two or more machines – given the same set of rules, actor/action dictionary and corpus of texts – is similarly high. Further, automated coding is not subject to errors induced by the context of an event, political or cultural biases, fatigue or boredom.

Automated coding methods have been shown to produce results at least as accurate as hand coding but with complete consistency, replicability and more randomness in the errors (Schrodt and Gerner, 1994; King and Lowe, 2003). Whereas bias in the errors can create bias in the results, randomness in errors will tend to attenuate the results, not improve them. The Boolean matching approach uses in this paper capitalizes on the highly structured form of the coded texts – short, two-three sentence incident reports, which have a limited vocabulary and narrow substantive focus. Methods like TABARI and VRA Reader assume little to no structure in the text, thereby opening themselves to additional sources of error. If the assumptions about the nature of the texts are correct, the Boolean matching approach is likely not only to match the coding accuracy of TABARI and VRA Reader but actually exceed it.

The most common types of inaccurate codings in automated events extraction (i.e.: incorrect dates, geocodings or event types) usually occur due to unusually-structured sentences, unrecognized terms not included in the dictionary, or references to historical events (Schrodt, 2001). The first of these was addressed in part by selecting the highly-structured Memorial event summaries as the text corpus (see examples above). The second problem, usually induced through the use of off-the-shelf coding dictionaries, was addressed in the dictionary design phase. Rather than use a pre-existing list of terms that may or may not be in the text, we adopted an *ex-post* dictionary construction technique, in which the system generated a list of most-frequent terms (and permutations thereof) included in the Memorial summaries, and the dictionary lists of relevant political actors, actions, targets and place names were constructed based on this list.⁵ This approach enables the fine-tuning of coding rules to the substantive domain of the texts, informed by prior knowledge of what sorts of events can be coded accurately.

While the approach taken here was designed to avoid many of the systematic sources of bias and error common to human coding and certain categories of automated coding, we performed a series of checks to assess the accuracy of the automated event codings and matchings to geographic place names and dates. The first of these was to examine the face validity of the data: does the spatio-temporal distribution of the coded events align with narrative accounts of the evolution of the Caucasus conflict during the period in question (2000-2011). Most analysts of the region – Russian and Western, qualitative and quantitative – have described an increasingly diffuse pattern of violence. A conflict which, until the consolidation of power in Chechnya by the Kadyrov family in 2004-2005, was largely limited to Chechnya, has in recent years spread to neighboring regions, particularly Dagestan, Ingushetia and Kabardino-Balkaria (Malashenko and Trenin, 2002; Kramer, 2004, 2005; Sagramoso, 2007; Souleimanov, 2007; Vendina, Belozarov and Gustafson, 2007; O’Loughlin and Witmer, 2011; Kuchins, Markedonov and Malarkey, 2011). As shown in Figures

⁵Due the complexities of Russian grammar, we did not use stemming as part of natural language processing. This enabled us to distinguish between various grammatical permutations of location and actor names in the construction of the dictionary.

1-2, our data largely support these narratives. In 2000-2002, fighting was mostly confined to the Chechen Republic, with occasional rebel incursions into neighboring republics and majority-Russian areas, like Stavropol Kray. Following a spike in violence in 2004-2005 (after the assassination of Akhmat Kadyrov), violent attacks became less frequent, but covered a broader swath of territory. Attacks in Ingushetia and Dagestan became more common, while Chechnya became more calm.

An equally important issue was whether some individual events may be mis-coded due to references to historical events, odd phrasings or other problems that could be more easily detected and avoided by a human coder with subject matter expertise. While, due to the many sources error described above, we should be wary of treating any human codings as a “gold standard,” a basic comparison of the two types of measures can serve as a useful “sanity check.” With this reasoning, we performed the following procedure multiple times: a set of 50 event summaries were randomly selected from the corpus, and hand-coded by one of the co-authors according to their location, date, and event type. The human event coding rules used were the same as the machine rules outlined above. The human codings were then compared against the automated codings, and the level of agreement was calculated as the proportion of event summaries where the two sets of codings were identical. If the level of agreement fell below .9 (more than five disagreements out of 50), the set of events was then manually inspected to determine the source of disagreement.

If the source of disagreement was determined to be systematic, we modified the coding procedure to flag such potential problems for manual inspection with a dummy variable called “INSPECT.” For instance, in the case of miscodings of paramilitary units’ home bases as locations of events – as in “Novgorodskiy OMON” – we set `INSPECT=1` if a location name was followed or preceded by a term representing a political actor in an event summary.⁶ To address historical references directly, we set `INSPECT=1` if more than one date, month or year was mentioned in a summary, or if more than one location was mentioned in a summary. This procedure also helped us distinguish between cases where event summaries included references to multiple simultaneous events (e.g. “air strikes were carried out on March 13 in villages A, B and C”), as opposed to event summaries that made references to a single current event and one or more historical events (e.g. “an air strike was carried out on May 15 in village A. This operation marks the first series of air strikes in the area since March 13.”) The goal here was to minimize the risk of double-counts and false positives, while avoiding false negatives that would result from mistaking multiple events for historical references.

We then performed a manual inspection of all cases where `INSPECT=1` (originally, 24% of the events), and corrected the codings by hand where deemed necessary. We then selected another 50 event summaries at random, and repeated the entire procedure (a total of 7 times) until the level of agreement exceeded .9 for three consecutive sets of 50. Only after we became convinced that the accuracy of individual event codings approached those of a human subject matter expert (>.9), did we aggregate the events to the level of village-month as described in detail below.

2 Variable descriptions for aggregated data

2.1 Geographic locations and dates

Case ID (rayon-week) (RWID) Unique identifier for rayon-week observation. Use for sorting data, creation of time lags.

⁶This procedure was performed through string operations on the original text, rather than the “bag of words” representation of the text following the removal of stop words and the discarding of word order.

Time ID (week) (WID) Unique identifier for each month.

Year (YEAR) Year of observation.

Month (MONTH) Month of observation.

Date (YRMO) Year-month of observation, in format YYYYMM.

Unit ID (RID) Unique identifier for rayon.

Rayon ID (RAYON_ID) Unique identifier for rayon (alternate).

Rayon Name (RAYON_NAME) Name of rayon.

Region ID (OBLAST_ID) Unique identifier for region (republic, *kray* or *oblast*).

Region Name (OBLAST_NAM) Name of region (republic, *kray* or *oblast*).

Region Name 2 (OBLAST_NM2) Simplified name of region (republic, *kray* or *oblast*).

Latitude (LAT) Use UTM 38N or UTM 39N for projected coordinate system, WGS84 for geographic coordinate system.

Longitude (LONG) Use UTM 38N or UTM 39N for projected coordinate system, WGS84 for geographic coordinate system.

2.2 Conflict dynamics

Insurgent Violence

Insurgent violence (count) (INS_ALL) total number of episodes of insurgent violence of any type, observed in rayon i during week t

Insurgent violence (binary) (INS_ALL.b)
$$\begin{cases} 1 & \text{if at least one episode of insurgent violence} \\ & \text{was observed in rayon } i \text{ during week } t \\ 0 & \text{otherwise} \end{cases}$$

Islamist violence (count) (INS_ALL_IX) number of episodes of Islamist insurgent violence, observed in rayon i during week t , according to definition X .

- $X = 1$: Extensive
- $X = 2$: Intermediate
- $X = 3$: Limited
- $X = 4$: Target-based

Islamist violence (binary) (INS_ALL_IX.b)
$$\begin{cases} 1 & \text{if at least one episode of Islamist violence (} X \text{)} \\ & \text{was observed in rayon } i \text{ during week } t \\ 0 & \text{otherwise} \end{cases}$$

Nationalist violence (count) (INS_ALL_NX) number of episodes of nationalist insurgent violence, observed in rayon i during week t , according to definition X .

Nationalist violence (binary) (INS_ALL_NX.b) $\begin{cases} 1 & \text{if at least one episode of nationalist violence (X) was observed in } i, t \\ 0 & \text{otherwise} \end{cases}$

Other non-state violence (count) (INS_ALL_0X) number of episodes of non-state violence other than Islamist and nationalist, observed in rayon i during week t , according to definition X.

Other non-state violence (binary) (INS_ALL_0X.b) $\begin{cases} 1 & \text{if at least one episode of other non-state violence (X) was observed in } i, t \\ 0 & \text{otherwise} \end{cases}$

Insurgent violence (count, time lagged) (L_INS_ALL) number of total episodes of insurgent violence, observed in rayon i during week $t - 1$.

Insurgent violence (binary, time lagged) (L_INS_ALL.b) $\begin{cases} 1 & \text{if at least one episode of insurgent violence was observed in rayon } i \text{ during week } t - 1 \\ 0 & \text{otherwise} \end{cases}$

Islamist violence (count, time lagged) (L_INS_ALL_IX) number of episodes of Islamist violence (definition X), observed in rayon i during week $t - 1$.

Islamist violence (binary, time lagged) (L_INS_ALL_IX.b) $\begin{cases} 1 & \text{if at least one episode of Islamist violence (X) was observed in rayon } i \text{ during week } t - 1 \\ 0 & \text{otherwise} \end{cases}$

Nationalist violence (count, time lagged) (L_INS_ALL_NX) number of episodes of nationalist violence (definition X), observed in rayon i during week $t - 1$.

Nationalist violence (binary, time lagged) (L_INS_ALL_NX.b) $\begin{cases} 1 & \text{if at least one episode of nationalist violence (X) was observed in } i, t - 1 \\ 0 & \text{otherwise} \end{cases}$

Other non-state violence (count, time lagged) (L_INS_ALL_0X) number of episodes of non-state violence other than Islamist and nationalist (definition X), observed in rayon i during week $t - 1$.

Other non-state violence (binary, time lagged) (L_INS_ALL_0X.b) $\begin{cases} 1 & \text{if at least one episode of other non-state violence (X) was observed in } i, t - 1 \\ 0 & \text{otherwise} \end{cases}$

Government violence

Selective counterinsurgency tactics (count) (GOV_SEL) number of government-initiated counterinsurgency operations involving selective tactics, observed in rayon i during week t .

Selective counterinsurgency tactics (binary) (GOV_SEL.b) $\begin{cases} 1 & \text{if at least one selective COIN operation was observed in rayon } i \text{ during week } t \\ 0 & \text{otherwise} \end{cases}$

Indiscriminate counterinsurgency tactics (count) (GOV_IND) number of government-initiated counterinsurgency operations involving indiscriminate tactics, observed in rayon i during week t .

Indiscriminate counterinsurgency tactics (binary) (GOV_IND.b) $\begin{cases} 1 & \text{if at least one indiscriminate COIN operation was observed in rayon } i \text{ during week } t \\ 0 & \text{otherwise} \end{cases}$

2.3 Control variables

Global suicide terrorism (GTD_SUICIDE) Number of suicide terrorist attacks that occurred during week t outside Russia.

Muslim holiday (HOLIDAY) $\begin{cases} 1 & \text{if week } t \text{ falls on a Muslim holiday} \\ 0 & \text{otherwise} \end{cases}$

Holidays included: Al-Hijra (Islamic New Year), Laylat al-Qadr, Mawlid an Nabi, Isra and Mi'raj, Ramadan (all month), Laylat al-Qadr, End of Ramadan (Eid ul-Fitr), Arafat (Haj) Day, Eid al Adha.

Chechen Republic of Ichkeria (ChRI) holiday (HOLIDAY_CHRI) $\begin{cases} 1 & \text{if week } t \text{ falls on a ChRI holiday} \\ 0 & \text{otherwise} \end{cases}$

Official ChRI holidays include Tolaman denosh (Victory Day), Day of Chechen National Rebirth (Deportation), ChRI Constitution Day, Glazotan de (Shahid Memorial Day), War's End Day, Caucasian Rebirth Day, Jihad Day, Independence Day, and Russian Withdrawal Day.

Population density (POP) Average population per square kilometer of villages in rayon.

Elevation (ELEVATION) Average elevation of villages in rayon, in meters. Sea level = 0.

Slope (SLOPE) Average slope of terrain in villages in rayon, in degrees. Zero represents flat terrain; 90 represents a vertical slope.

Forest (FOREST) Percent forest cover in rayon.

Percent Russian speaking (LANGUAGE) Percent of fluent Russian speakers in rayon.

Deported in 1944 (DEPORTED) Percent of villages in rayon deported to Central Asia in 1944.

Distance to nearest military base (DIST_MIL) $1/N \sum_j \min_k d_{jk}$, the average road distance (in kilometers) between all villages j in rayon and their closest military facility k .

Distance to nearest international border crossing (CHKINT_NEAR) $1/N \sum_j \min_m d_{jm}$, the average road distance (in kilometers) between all villages j in rayon and the closest border crossing m .

Distance to oil pipeline (DIST_PIPES) $1/N \sum_j \min_l d_{jl}$, the average road distance (in kilometers) from all villages j in rayon and the closest oil pipeline l .

Distance to nearest refugee camp (REFUGEE_MIN) $1/N \sum_j \min_r d_{jr}$, the average road distance (in kilometers) from all villages j in rayon and the closest refugee camp r .

3 Summary statistics

Table 1: **Islamist and nationalist violence, by definition.** Count (percent of total).

| | Expansive | Intermediate | Limited | Target-based |
|-------------|---------------|---------------|---------------|---------------|
| Islamist | 1772 (18.84%) | 1570 (16.69%) | 813 (8.64%) | 241 (2.56%) |
| Nationalist | 6260 (66.56%) | 6292 (66.90%) | 7049 (74.95%) | 7004 (74.47%) |
| Other | 1373 (14.60%) | 1543 (16.41%) | 1543 (16.41%) | 2160 (22.97%) |
| Total | 9405 (100%) | 9405 (100%) | 9405 (100%) | 9405 (100%) |

Figure 2: Islamist violence (intermediate definition)

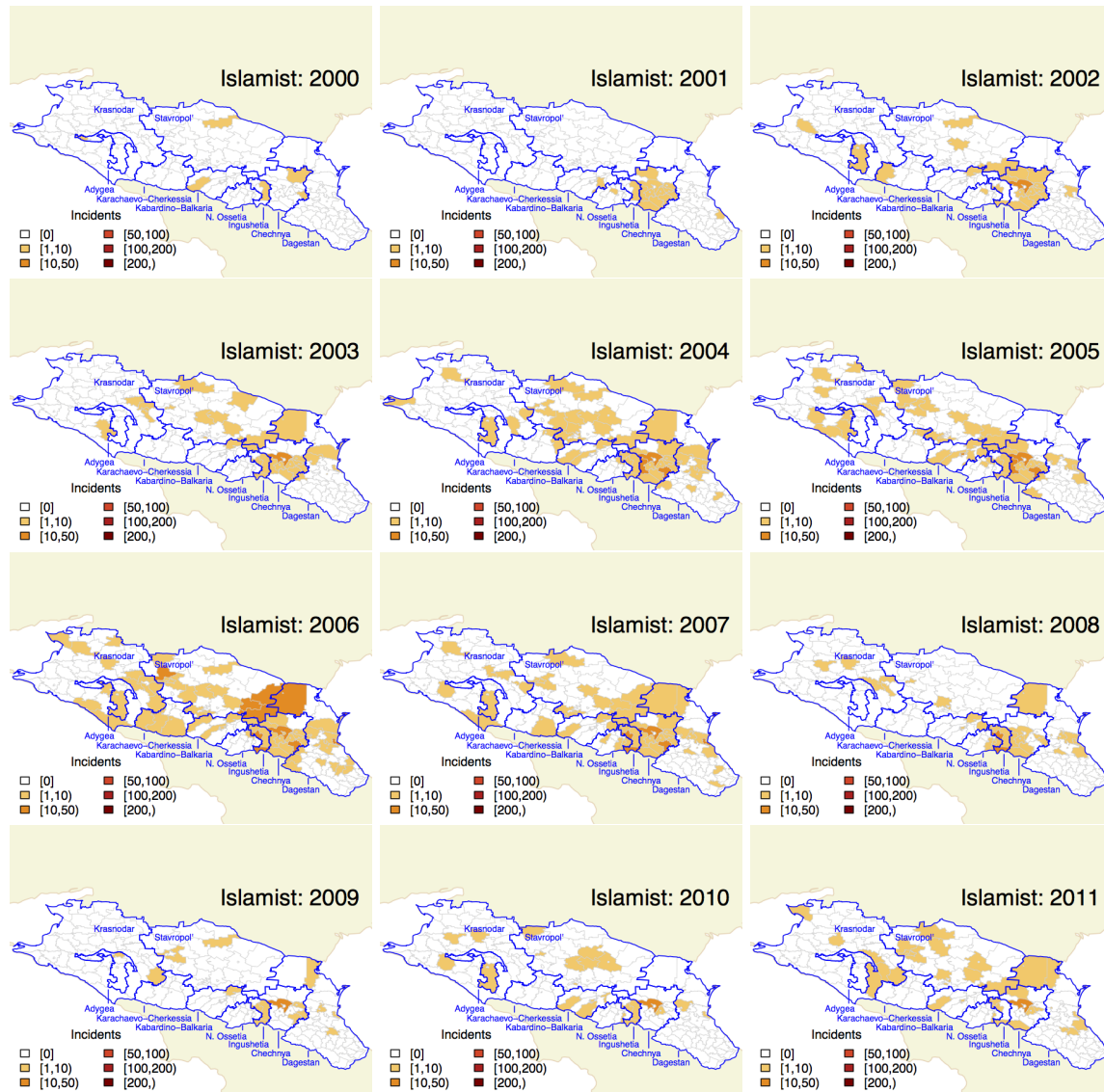


Figure 3: Nationalist violence (intermediate definition)

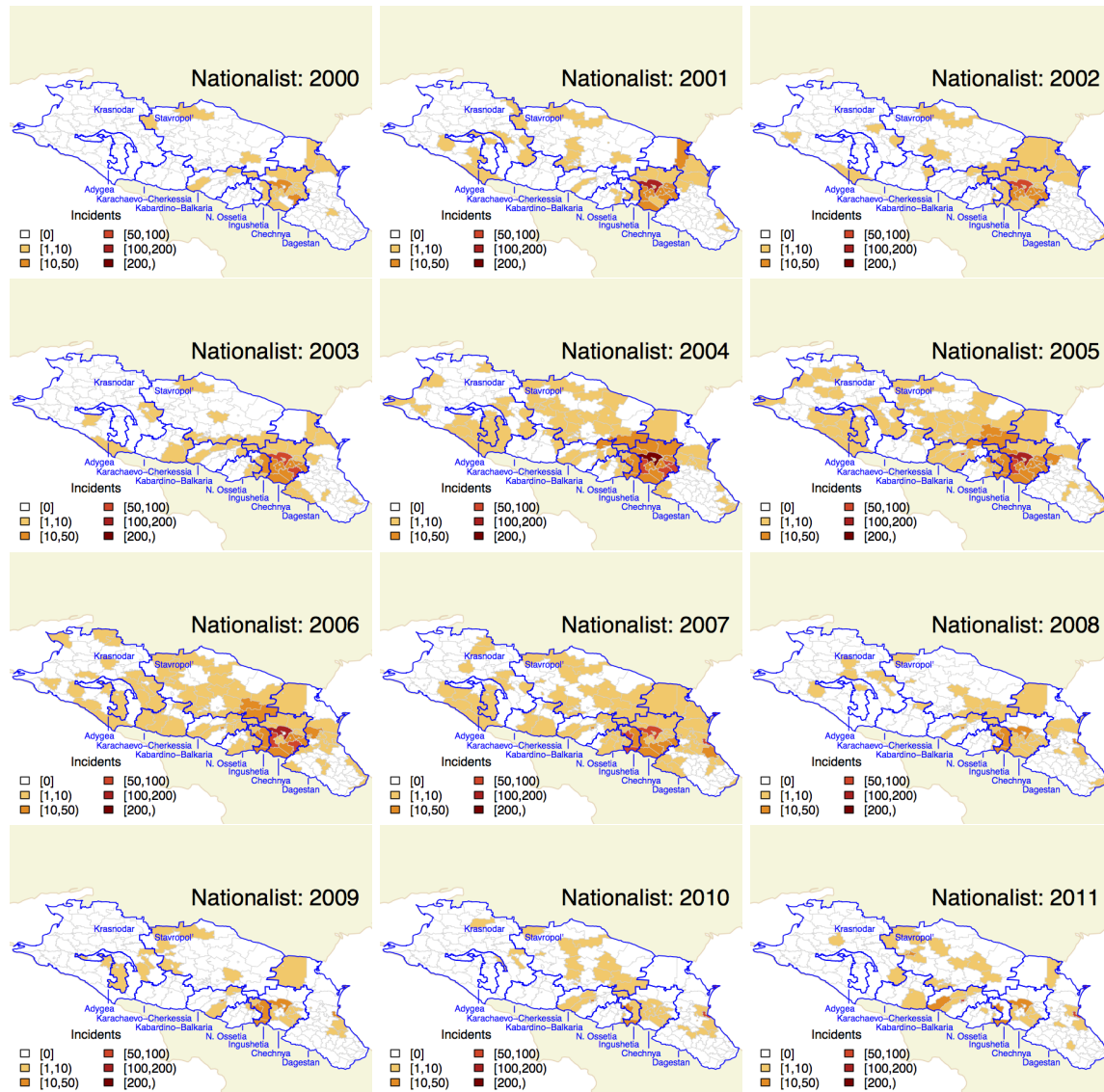
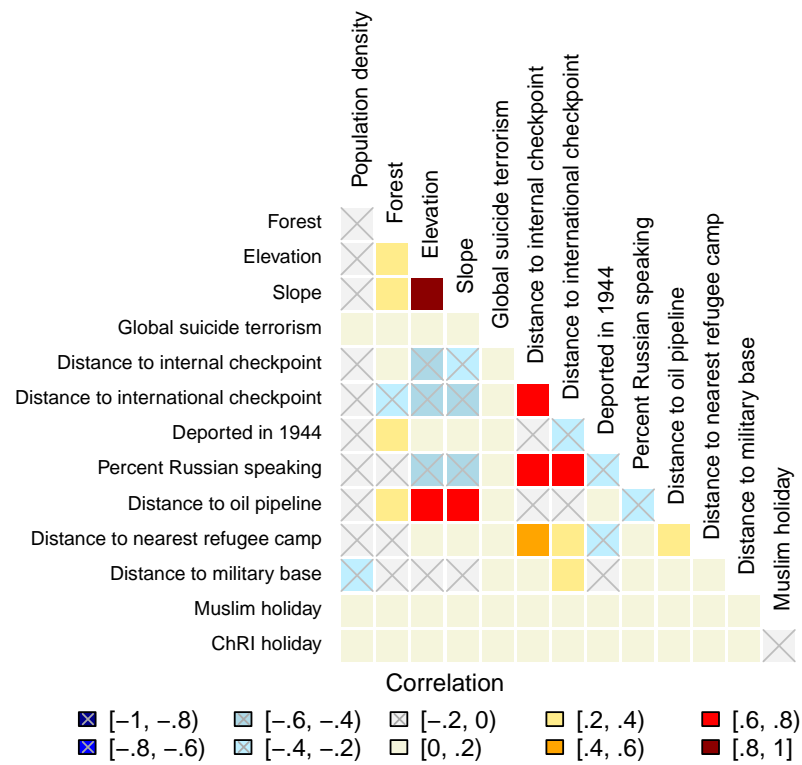


Table 2: **Summary statistics.** Unit of analysis: district-week.

| Variable | Range | Median | Mean | Std.Dev. |
|--|---------------------|---------|---------|----------|
| Islamist violence (expansive) | [0, 17] | 0 | 0.014 | 0.178 |
| Nationalist violence (expansive) | [0, 22] | 0 | 0.05 | 0.39 |
| Islamist violence (intermediate) | [0, 17] | 0 | 0.012 | 0.16 |
| Nationalist violence (intermediate) | [0, 22] | 0 | 0.05 | 0.392 |
| Islamist violence (limited) | [0, 17] | 0 | 0.006 | 0.114 |
| Nationalist violence (limited) | [0, 27] | 0 | 0.056 | 0.425 |
| Islamist violence (target-based) | [0, 6] | 0 | 0.002 | 0.055 |
| Nationalist violence (target-based) | [0, 25] | 0 | 0.056 | 0.423 |
| Government Violence (all) | [0, 44] | 0 | 0.18 | 1.047 |
| Government Violence (selective) | [0, 35] | 0 | 0.089 | 0.581 |
| Government Violence (indiscriminate) | [0, 28] | 0 | 0.092 | 0.615 |
| Islamist violence (expansive, binary) | [0, 1] | 0 | 0.01 | 0.1 |
| Nationalist violence (expansive, binary) | [0, 1] | 0 | 0.028 | 0.166 |
| Islamist violence (intermediate, binary) | [0, 1] | 0 | 0.009 | 0.096 |
| Nationalist violence (intermediate, binary) | [0, 1] | 0 | 0.029 | 0.167 |
| Islamist violence (limited, binary) | [0, 1] | 0 | 0.005 | 0.07 |
| Nationalist violence (limited, binary) | [0, 1] | 0 | 0.031 | 0.174 |
| Islamist violence (target-based, binary) | [0, 1] | 0 | 0.001 | 0.038 |
| Nationalist violence (target-based, binary) | [0, 1] | 0 | 0.031 | 0.174 |
| Government Violence (all, binary) | [0, 1] | 0 | 0.07 | 0.254 |
| Government Violence (selective, binary) | [0, 1] | 0 | 0.045 | 0.208 |
| Government Violence (indiscriminate, binary) | [0, 1] | 0 | 0.044 | 0.205 |
| Population density | [1.101, 10442] | 130.115 | 719.659 | 1618.678 |
| Forest | [0, 0.95] | 0.058 | 0.152 | 0.22 |
| Elevation | [-16.547, 1989.143] | 218.635 | 461.138 | 534.511 |
| Slope | [0, 16.538] | 1.393 | 3.064 | 3.868 |
| Global suicide terrorism | [0, 16] | 2 | 2.627 | 2.797 |
| Distance to international border crossing | [15.159, 417.223] | 182.741 | 185.699 | 89.505 |
| Deported in 1944 | [0, 1] | 0 | 0.214 | 0.361 |
| Percent Russian speaking | [30, 95] | 86.824 | 78.969 | 16.264 |
| Distance to oil pipeline | [0.284, 123.479] | 18.266 | 29.485 | 28.057 |
| Distance to nearest refugee camp | [2.646, 232.054] | 56.44 | 68.132 | 49.786 |
| Distance to military base | [0.053, 152.939] | 51.303 | 54.242 | 31.144 |
| Muslim holiday | [0, 1] | 0 | 0.197 | 0.398 |
| ChRI holiday | [0, 1] | 0 | 0.159 | 0.366 |

Figure 4: **Correlation matrix.** Right-hand side variables only.

4 Regression tables, robustness checks and matching balance

The following section provides the full regression output for all models discussed in the section of the paper titled “The Determinants of Islamist Violence.”

4.1 Autologistic regressions (all four definitions)

Tables O.3-O.10 report coefficients from autologistic regressions of insurgent violence (Islamist and nationalist, all four definitions). We used the regressions with the intermediate definition of Islamist violence (Tables O.5-O.6) to generate the results shown in the paper’s Table 8 (“Empirical determinants of insurgent violence”). The best-fitting models (lowest AIC, highest AUC) discussed in the paper are Model 16 for Islamist violence, and Model 22 for nationalist violence. These tables show that the substantive results reported in the paper are robust across all definitions of Islamist violence.

Table 3: **Autologistic regression: Islamist violence** (expansive definition)

| | <i>Dependent variable: Islamist violence (binary) (INS_ALL_I1.b)</i> | | | | | |
|---|--|----------------------|-----------------------|------------------------|----------------------|-----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Violence (t-1) | 1.847*** (0.095) | 1.839*** (0.095) | 1.756*** (0.095) | 1.742*** (0.095) | 1.853*** (0.095) | 1.838*** (0.095) |
| Violence in neighboring districts (t-1) | 0.145*** (0.025) | 0.144*** (0.025) | 0.118*** (0.026) | 0.114*** (0.026) | 0.147*** (0.025) | 0.139*** (0.025) |
| Population Density | 0.00003 (0.00002) | 0.00003 (0.00002) | −0.00001 (0.00002) | 0.00004** (0.00002) | 0.00002 (0.00002) | 0.00003* (0.00002) |
| Slope | 0.014 (0.009) | | | | | |
| Elevation | | 0.0002** (0.0001) | | | | |
| Percent Russian speaking | | | −0.022*** (0.002) | | | |
| Distance to border crossing | | | | −0.005*** (0.0004) | | |
| Distance to pipeline | | | | | −0.001 (0.001) | |
| Percent forest cover | | | | | | 0.429*** (0.115) |
| Global suicide terrorism | 0.082*** (0.009) | 0.082*** (0.009) | 0.083*** (0.009) | 0.083*** (0.009) | 0.082*** (0.009) | 0.082*** (0.009) |
| Distance to military base | −0.004*** (0.001) | −0.003*** (0.001) | −0.004*** (0.001) | −0.002 (0.001) | −0.004*** (0.001) | −0.004*** (0.001) |
| Distance to nearest refugee camp | −0.016*** (0.001) | −0.016*** (0.001) | −0.016*** (0.001) | −0.014*** (0.001) | −0.015*** (0.001) | −0.016*** (0.001) |
| Deported in 1944 | 1.324*** (0.077) | 1.348*** (0.075) | 1.031*** (0.081) | 1.155*** (0.078) | 1.355*** (0.075) | 1.265*** (0.078) |
| Muslim holiday | 0.121* (0.069) | 0.121* (0.069) | 0.119* (0.069) | 0.122* (0.069) | 0.121* (0.069) | 0.120* (0.069) |
| ChRI holiday | 0.041 (0.078) | 0.041 (0.078) | 0.037 (0.078) | 0.039 (0.078) | 0.040 (0.078) | 0.040 (0.078) |
| Constant | −4.623*** (0.105) | −4.668*** (0.108) | −2.710*** (0.216) | −3.990*** (0.120) | −4.590*** (0.107) | −4.630*** (0.105) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | −6,173.614 | −6,171.902 | −6,124.308 | −6,114.977 | −6,174.442 | −6,168.105 |
| AIC | 12,369.230 | 12,365.800 | 12,270.620 | 12,251.950 | 12,370.880 | 12,358.210 |
| ROC AUC | 0.807 | 0.807 | 0.810 | 0.810 | 0.808 | 0.807 |

*p < .1; **p < .05; ***p < .01

Table 4: **Autologistic regression: Nationalist violence** (expansive definition)

| <i>Dependent variable: Nationalist violence (binary) (INS_ALL_N1.b)</i> | | | | | | |
|---|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|
| | (7) | (8) | (9) | (10) | (11) | (12) |
| Violence (t-1) | 1.944*** (0.048) | 1.941*** (0.048) | 1.846*** (0.048) | 1.856*** (0.048) | 1.943*** (0.048) | 1.937*** (0.048) |
| Violence in neighboring districts (t-1) | 0.163*** (0.007) | 0.163*** (0.007) | 0.141*** (0.007) | 0.146*** (0.007) | 0.163*** (0.007) | 0.160*** (0.007) |
| Population Density | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.00004*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) |
| Slope | 0.0005 (0.006) | | | | | |
| Elevation | | 0.0001** (0.00004) | | | | |
| Percent Russian speaking | | | -0.024*** (0.001) | | | |
| Distance to border crossing | | | | -0.005*** (0.0003) | | |
| Distance to pipeline | | | | | 0.001 (0.001) | |
| Percent forest cover | | | | | | 0.263*** (0.074) |
| Global suicide terrorism | 0.055*** (0.006) | 0.055*** (0.006) | 0.056*** (0.006) | 0.055*** (0.006) | 0.055*** (0.006) | 0.054*** (0.006) |
| Distance to military base | -0.001 (0.001) | -0.001 (0.001) | -0.002*** (0.001) | 0.001 (0.001) | -0.001 (0.001) | -0.001 (0.001) |
| Distance to nearest refugee camp | -0.012*** (0.001) | -0.013*** (0.001) | -0.014*** (0.001) | -0.011*** (0.001) | -0.013*** (0.001) | -0.013*** (0.001) |
| Deported in 1944 | 1.473*** (0.051) | 1.471*** (0.050) | 1.146*** (0.054) | 1.292*** (0.052) | 1.467*** (0.050) | 1.421*** (0.052) |
| Muslim holiday | -0.051 (0.047) | -0.051 (0.047) | -0.051 (0.047) | -0.049 (0.047) | -0.051 (0.047) | -0.050 (0.047) |
| ChRI holiday | 0.097** (0.049) | 0.097** (0.049) | 0.097** (0.049) | 0.095* (0.049) | 0.097* (0.049) | 0.097** (0.049) |
| Constant | -4.027*** (0.069) | -4.058*** (0.071) | -1.946*** (0.144) | -3.419*** (0.079) | -4.041*** (0.069) | -4.040*** (0.069) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -12,478.580 | -12,476.560 | -12,342.500 | -12,348.340 | -12,477.390 | -12,472.280 |
| AIC | 24,979.160 | 24,975.120 | 24,707.000 | 24,718.680 | 24,976.770 | 24,966.560 |
| ROC AUC | 0.845 | 0.845 | 0.847 | 0.849 | 0.845 | 0.844 |

*p < .1; **p < .05; ***p < .01

Table 5: **Autologistic regression: Islamist violence** (intermediate definition)

| | <i>Dependent variable: Islamist violence (binary) (INS_ALL_I2.b)</i> | | | | | |
|---|--|----------------------|-----------------------|------------------------|----------------------|-----------------------|
| | (13) | (14) | (15) | (16) | (17) | (18) |
| Violence (t-1) | 1.879*** (0.101) | 1.871*** (0.101) | 1.784*** (0.101) | 1.777*** (0.101) | 1.882*** (0.101) | 1.868*** (0.101) |
| Violence in neighboring districts (t-1) | 0.146*** (0.028) | 0.145*** (0.028) | 0.116*** (0.029) | 0.114*** (0.029) | 0.147*** (0.028) | 0.139*** (0.028) |
| Population Density | 0.00003 (0.00002) | 0.00003 (0.00002) | −0.00001 (0.00002) | 0.00004** (0.00002) | 0.00002 (0.00002) | 0.00003* (0.00002) |
| Slope | 0.012 (0.010) | | | | | |
| Elevation | | 0.0002** (0.0001) | | | | |
| Percent Russian speaking | | | −0.023*** (0.002) | | | |
| Distance to border crossing | | | | −0.005*** (0.0005) | | |
| Distance to pipeline | | | | | −0.0004 (0.001) | |
| Percent forest cover | | | | | | 0.438*** (0.120) |
| Global suicide terrorism | 0.089*** (0.009) | 0.089*** (0.009) | 0.090*** (0.009) | 0.090*** (0.009) | 0.089*** (0.009) | 0.090*** (0.009) |
| Distance to military base | −0.003*** (0.001) | −0.003** (0.001) | −0.004*** (0.001) | −0.001 (0.001) | −0.003*** (0.001) | −0.003*** (0.001) |
| Distance to nearest refugee camp | −0.015*** (0.001) | −0.015*** (0.001) | −0.016*** (0.001) | −0.013*** (0.001) | −0.014*** (0.001) | −0.015*** (0.001) |
| Deported in 1944 | 1.372*** (0.080) | 1.392*** (0.078) | 1.068*** (0.085) | 1.203*** (0.082) | 1.396*** (0.078) | 1.306*** (0.082) |
| Muslim holiday | 0.154** (0.071) | 0.155** (0.071) | 0.152** (0.072) | 0.156** (0.072) | 0.154** (0.072) | 0.153** (0.071) |
| ChRI holiday | 0.020 (0.082) | 0.020 (0.082) | 0.017 (0.082) | 0.018 (0.082) | 0.020 (0.082) | 0.020 (0.082) |
| Constant | −4.788*** (0.110) | −4.833*** (0.113) | −2.825*** (0.225) | −4.167*** (0.125) | −4.768*** (0.112) | −4.798*** (0.110) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | −5,732.859 | −5,731.211 | −5,684.365 | −5,679.373 | −5,733.598 | −5,727.162 |
| AIC | 11,487.720 | 11,484.420 | 11,390.730 | 11,380.750 | 11,489.200 | 11,476.330 |
| ROC AUC | 0.809 | 0.808 | 0.812 | 0.812 | 0.809 | 0.809 |

*p < .1; **p < .05; ***p < .01

Table 6: **Autologistic regression: Nationalist violence** (intermediate definition)

| | <i>Dependent variable: Nationalist violence (binary) (INS_ALL_N2.b)</i> | | | | | |
|---|---|------------------------|-------------------------|------------------------|------------------------|------------------------|
| | (19) | (20) | (21) | (22) | (23) | (24) |
| Violence (t-1) | 1.948*** (0.048) | 1.944*** (0.048) | 1.849*** (0.048) | 1.860*** (0.048) | 1.946*** (0.048) | 1.941*** (0.048) |
| Violence in neighboring districts (t-1) | 0.163*** (0.007) | 0.163*** (0.007) | 0.141*** (0.007) | 0.147*** (0.007) | 0.163*** (0.007) | 0.161*** (0.007) |
| Population Density | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.00004*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) |
| Slope | 0.0002 (0.006) | | | | | |
| Elevation | | 0.0001** (0.00004) | | | | |
| Percent Russian speaking | | | -0.024*** (0.001) | | | |
| Distance to border crossing | | | | -0.005*** (0.0003) | | |
| Distance to pipeline | | | | | 0.001 (0.001) | |
| Percent forest cover | | | | | | 0.259*** (0.074) |
| Global suicide terrorism | 0.054*** (0.006) | 0.054*** (0.006) | 0.056*** (0.006) | 0.055*** (0.006) | 0.055*** (0.006) | 0.054*** (0.006) |
| Distance to military base | -0.001 (0.001) | -0.001 (0.001) | -0.002*** (0.001) | 0.001 (0.001) | -0.001 (0.001) | -0.001 (0.001) |
| Distance to nearest refugee camp | -0.012*** (0.001) | -0.013*** (0.001) | -0.014*** (0.001) | -0.011*** (0.001) | -0.013*** (0.001) | -0.013*** (0.001) |
| Deported in 1944 | 1.465*** (0.051) | 1.463*** (0.050) | 1.138*** (0.054) | 1.284*** (0.052) | 1.458*** (0.050) | 1.413*** (0.052) |
| Muslim holiday | -0.047 (0.046) | -0.046 (0.046) | -0.047 (0.046) | -0.045 (0.046) | -0.047 (0.046) | -0.046 (0.046) |
| ChRI holiday | 0.090* (0.049) | 0.090* (0.049) | 0.090* (0.049) | 0.088* (0.049) | 0.090* (0.049) | 0.091* (0.049) |
| Constant | -4.020*** (0.069) | -4.050*** (0.070) | -1.949*** (0.143) | -3.413*** (0.079) | -4.033*** (0.069) | -4.033*** (0.069) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -12,523.270 | -12,521.350 | -12,388.130 | -12,393.450 | -12,522.190 | -12,517.170 |
| AIC | 25,068.540 | 25,064.710 | 24,798.260 | 24,808.910 | 25,066.390 | 25,056.340 |
| ROC AUC | 0.845 | 0.845 | 0.846 | 0.849 | 0.845 | 0.844 |

*p < .1; **p < .05; ***p < .01

Table 7: **Autologistic regression: Islamist violence** (limited definition)

| | <i>Dependent variable: Islamist violence (binary) (INS_ALL_I3.b)</i> | | | | | |
|---|--|-----------------------|-----------------------|----------------------|-----------------------|----------------------|
| | (25) | (26) | (27) | (28) | (29) | (30) |
| Violence (t-1) | 1.982*** (0.161) | 1.968*** (0.161) | 1.921*** (0.161) | 1.866*** (0.161) | 2.016*** (0.160) | 2.001*** (0.160) |
| Violence in neighboring districts (t-1) | 0.100* (0.053) | 0.098* (0.053) | 0.073 (0.056) | 0.062 (0.057) | 0.104** (0.052) | 0.096* (0.053) |
| Population Density | 0.00001 (0.00003) | 0.00001 (0.00003) | −0.00004 (0.00003) | 0.00002 (0.00003) | −0.00001 (0.00003) | 0.00000 (0.00003) |
| Slope | 0.044*** (0.012) | | | | | |
| Elevation | | 0.0004*** (0.0001) | | | | |
| Percent Russian speaking | | | −0.022*** (0.003) | | | |
| Distance to border crossing | | | | −0.005*** (0.001) | | |
| Distance to pipeline | | | | | 0.001 (0.002) | |
| Percent forest cover | | | | | | 0.473*** (0.163) |
| Global suicide terrorism | 0.072*** (0.012) | 0.072*** (0.012) | 0.073*** (0.012) | 0.073*** (0.012) | 0.073*** (0.012) | 0.073*** (0.012) |
| Distance to military base | −0.003** (0.002) | −0.003* (0.002) | −0.004** (0.002) | −0.001 (0.002) | −0.003** (0.002) | −0.003** (0.002) |
| Distance to nearest refugee camp | −0.018*** (0.002) | −0.018*** (0.002) | −0.018*** (0.002) | −0.015*** (0.002) | −0.017*** (0.002) | −0.017*** (0.002) |
| Deported in 1944 | 1.315*** (0.108) | 1.393*** (0.105) | 1.072*** (0.115) | 1.177*** (0.110) | 1.394*** (0.105) | 1.302*** (0.110) |
| Muslim holiday | 0.196** (0.096) | 0.196** (0.096) | 0.194** (0.096) | 0.197** (0.096) | 0.194** (0.096) | 0.195** (0.096) |
| ChRI holiday | 0.020 (0.111) | 0.021 (0.111) | 0.018 (0.111) | 0.019 (0.111) | 0.019 (0.111) | 0.019 (0.111) |
| Constant | −5.264*** (0.148) | −5.347*** (0.153) | −3.290*** (0.304) | −4.532*** (0.169) | −5.224*** (0.151) | −5.240*** (0.150) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | −3,461.827 | −3,460.841 | −3,441.129 | −3,428.192 | −3,467.633 | −3,463.672 |
| AIC | 6,945.654 | 6,943.683 | 6,904.258 | 6,878.384 | 6,957.266 | 6,949.343 |
| ROC AUC | 0.801 | 0.800 | 0.805 | 0.807 | 0.801 | 0.802 |

*p < .1; **p < .05; ***p < .01

Table 8: **Autologistic regression: Nationalist violence** (limited definition)

| <i>Dependent variable: Nationalist violence (binary) (INS_ALL_N3.b)</i> | | | | | | |
|---|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|
| | (31) | (32) | (33) | (34) | (35) | (36) |
| Violence (t-1) | 1.966*** (0.045) | 1.965*** (0.045) | 1.875*** (0.045) | 1.886*** (0.045) | 1.966*** (0.045) | 1.962*** (0.045) |
| Violence in neighboring districts (t-1) | 0.155*** (0.006) | 0.154*** (0.006) | 0.134*** (0.006) | 0.139*** (0.006) | 0.155*** (0.006) | 0.152*** (0.006) |
| Population Density | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.00004*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) |
| Slope | -0.005 (0.006) | | | | | |
| Elevation | | 0.00004 (0.00004) | | | | |
| Percent Russian speaking | | | -0.022*** (0.001) | | | |
| Distance to border crossing | | | | -0.004*** (0.0003) | | |
| Distance to pipeline | | | | | 0.001 (0.001) | |
| Percent forest cover | | | | | | 0.195*** (0.071) |
| Global suicide terrorism | 0.061*** (0.006) | 0.061*** (0.006) | 0.063*** (0.006) | 0.062*** (0.006) | 0.061*** (0.006) | 0.061*** (0.006) |
| Distance to military base | -0.001 (0.001) | -0.001 (0.001) | -0.002*** (0.001) | 0.001 (0.001) | -0.001 (0.001) | -0.001 (0.001) |
| Distance to nearest refugee camp | -0.012*** (0.001) | -0.012*** (0.001) | -0.013*** (0.001) | -0.011*** (0.001) | -0.012*** (0.001) | -0.012*** (0.001) |
| Deported in 1944 | 1.397*** (0.048) | 1.385*** (0.047) | 1.080*** (0.051) | 1.217*** (0.049) | 1.383*** (0.047) | 1.347*** (0.049) |
| Muslim holiday | -0.026 (0.044) | -0.026 (0.044) | -0.026 (0.044) | -0.024 (0.044) | -0.026 (0.044) | -0.025 (0.044) |
| ChRI holiday | 0.106** (0.047) | 0.106** (0.047) | 0.105** (0.047) | 0.104** (0.047) | 0.106** (0.047) | 0.106** (0.047) |
| Constant | -3.924*** (0.066) | -3.944*** (0.067) | -1.987*** (0.136) | -3.360*** (0.075) | -3.935*** (0.066) | -3.940*** (0.065) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -13,450.400 | -13,450.330 | -13,319.730 | -13,327.410 | -13,450.600 | -13,447.120 |
| AIC | 26,922.810 | 26,922.650 | 26,661.460 | 26,676.810 | 26,923.200 | 26,916.240 |
| ROC AUC | 0.842 | 0.842 | 0.844 | 0.845 | 0.842 | 0.841 |

*p < .1; **p < .05; ***p < .01

Table 9: **Autologistic regression: Islamist violence** (target-based definition)

| | <i>Dependent variable: Islamist violence (binary) (INS_ALL_I4.b)</i> | | | | | |
|---|--|-----------------------|----------------------|----------------------|----------------------|----------------------|
| | (37) | (38) | (39) | (40) | (41) | (42) |
| Violence (t-1) | 2.215*** (0.374) | 2.171*** (0.375) | 2.175*** (0.371) | 2.074*** (0.372) | 2.259*** (0.371) | 2.246*** (0.372) |
| Violence in neighboring districts (t-1) | 0.802*** (0.105) | 0.798*** (0.105) | 0.773*** (0.105) | 0.761*** (0.105) | 0.813*** (0.105) | 0.802*** (0.106) |
| Population Density | -0.0001 (0.0001) | -0.0001 (0.0001) | -0.0001 (0.0001) | -0.0001 (0.0001) | -0.0001 (0.0001) | -0.0001 (0.0001) |
| Slope | 0.036* (0.022) | | | | | |
| Elevation | | 0.0004*** (0.0002) | | | | |
| Percent Russian speaking | | | -0.020*** (0.006) | | | |
| Distance to border crossing | | | | -0.006*** (0.001) | | |
| Distance to pipeline | | | | | 0.00005 (0.003) | |
| Percent forest cover | | | | | | 0.326 (0.295) |
| Global suicide terrorism | 0.048** (0.023) | 0.047** (0.023) | 0.049** (0.023) | 0.047** (0.023) | 0.049** (0.023) | 0.049** (0.023) |
| Distance to military base | -0.005* (0.003) | -0.005* (0.003) | -0.006* (0.003) | -0.003 (0.003) | -0.006* (0.003) | -0.006* (0.003) |
| Distance to nearest refugee camp | -0.013*** (0.003) | -0.013*** (0.003) | -0.013*** (0.003) | -0.010*** (0.003) | -0.012*** (0.003) | -0.012*** (0.003) |
| Deported in 1944 | 1.442*** (0.198) | 1.502*** (0.193) | 1.227*** (0.209) | 1.262*** (0.203) | 1.514*** (0.194) | 1.439*** (0.205) |
| Muslim holiday | 0.592*** (0.161) | 0.594*** (0.161) | 0.587*** (0.161) | 0.592*** (0.161) | 0.590*** (0.161) | 0.591*** (0.161) |
| ChRI holiday | -0.325 (0.230) | -0.326 (0.230) | -0.326 (0.230) | -0.328 (0.230) | -0.324 (0.230) | -0.324 (0.230) |
| Constant | -6.560*** (0.274) | -6.681*** (0.282) | -4.786*** (0.543) | -5.755*** (0.311) | -6.514*** (0.279) | -6.529*** (0.276) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -1,248.742 | -1,246.669 | -1,243.170 | -1,234.242 | -1,250.070 | -1,249.476 |
| AIC | 2,519.485 | 2,515.338 | 2,508.340 | 2,490.485 | 2,522.139 | 2,520.951 |
| ROC AUC | 0.800 | 0.799 | 0.803 | 0.812 | 0.800 | 0.801 |

*p < .1; **p < .05; ***p < .01

Table 10: **Autologistic regression: Nationalist violence** (target-based definition)

| | <i>Dependent variable: Nationalist violence (binary) (INS_ALL_N4.b)</i> | | | | | |
|---|---|------------------------|-------------------------|------------------------|------------------------|------------------------|
| | (43) | (44) | (45) | (46) | (47) | (48) |
| Violence (t-1) | 1.971*** (0.045) | 1.969*** (0.045) | 1.880*** (0.046) | 1.891*** (0.046) | 1.970*** (0.045) | 1.966*** (0.045) |
| Violence in neighboring districts (t-1) | 0.155*** (0.006) | 0.155*** (0.006) | 0.135*** (0.006) | 0.140*** (0.006) | 0.155*** (0.006) | 0.153*** (0.006) |
| Population Density | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.00004*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) |
| Slope | -0.005 (0.006) | | | | | |
| Elevation | | 0.00004 (0.00004) | | | | |
| Percent Russian speaking | | | -0.022*** (0.001) | | | |
| Distance to border crossing | | | | -0.004*** (0.0003) | | |
| Distance to pipeline | | | | | 0.001 (0.001) | |
| Percent forest cover | | | | | | 0.205*** (0.072) |
| Global suicide terrorism | 0.062*** (0.006) | 0.062*** (0.006) | 0.063*** (0.006) | 0.063*** (0.006) | 0.062*** (0.006) | 0.062*** (0.006) |
| Distance to military base | -0.001 (0.001) | -0.001 (0.001) | -0.002*** (0.001) | 0.001 (0.001) | -0.001 (0.001) | -0.001 (0.001) |
| Distance to nearest refugee camp | -0.012*** (0.001) | -0.012*** (0.001) | -0.013*** (0.001) | -0.011*** (0.001) | -0.012*** (0.001) | -0.013*** (0.001) |
| Deported in 1944 | 1.395*** (0.049) | 1.384*** (0.047) | 1.080*** (0.051) | 1.216*** (0.049) | 1.382*** (0.048) | 1.344*** (0.050) |
| Muslim holiday | -0.038 (0.045) | -0.038 (0.045) | -0.038 (0.045) | -0.036 (0.045) | -0.038 (0.045) | -0.037 (0.045) |
| ChRI holiday | 0.113** (0.047) | 0.113** (0.047) | 0.112** (0.047) | 0.111** (0.047) | 0.113** (0.047) | 0.114** (0.047) |
| Constant | -3.927*** (0.066) | -3.947*** (0.067) | -2.001*** (0.137) | -3.365*** (0.075) | -3.939*** (0.066) | -3.943*** (0.066) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -13,379.000 | -13,378.860 | -13,250.770 | -13,257.630 | -13,379.090 | -13,375.300 |
| AIC | 26,780.000 | 26,779.710 | 26,523.540 | 26,537.260 | 26,780.190 | 26,772.600 |
| ROC AUC | 0.843 | 0.842 | 0.844 | 0.846 | 0.842 | 0.842 |

*p < .1; **p < .05; ***p < .01

4.2 Matched Analysis

Tables O.11-O.15 report balance statistics for the matched samples discussed in the section of the paper titled “Implications for Counterinsurgency.” Table O.11 compares summary balance statistics across all matching algorithms. Tables O.12-O.15 reports more specific, covariate-level balance statistics for – respectively – pre-matched data, Mahalanobis distance matching, propensity score matching, and coarsened exact matching (CEM). The most conservative matching algorithm discussed in the paper, with lowest imbalance is CEM. All results here are based on the intermediate definition of Islamist violence.

Table O.16 reports Poisson regression coefficients for the models used to generate the incidence risk ratios shown in the paper’s Table 9 (“Counterinsurgency tactics and insurgent violence”).

Table 11: **Summary statistics of matched samples.** Treated: number of cases of government selective violence. Control: number of cases of government indiscriminate violence. SDM: average standardized difference in means between treated and control groups (all pre-treatment covariates). Improvement: proportion of imbalance reduction from pre-matched data.

| | Treated | Control | SDM | Improvement |
|--------------------------------|---------|---------|------|-------------|
| Pre-Matching (Islamist) | 3259 | 5503 | 0.19 | 0.00 |
| Pre-Matching (Nationalist) | 3259 | 5503 | 0.22 | 0.00 |
| Mahalanobis (Islamist) | 3245 | 1994 | 0.09 | 55.82 |
| Mahalanobis (Nationalist) | 3245 | 1980 | 0.09 | 58.37 |
| Propensity Score (Islamist) | 3244 | 1918 | 0.05 | 73.93 |
| Propensity Score (Nationalist) | 3245 | 1919 | 0.05 | 75.45 |
| CEM (Islamist) | 829 | 953 | 0.03 | 82.37 |
| CEM (Nationalist) | 840 | 943 | 0.03 | 87.78 |

Table 12: **Balance statistics: pre-matching**

| Islamist | Treated | Control | SDM | TTest | KSTest |
|--------------------------------------|----------|----------|-------|-------|--------|
| Insurgent violence (pre-T) | 0.801 | 1.298 | 0.269 | 0.000 | 0.000 |
| Government violence (pre-T) | 11.009 | 24.753 | 0.854 | 0.000 | 0.000 |
| Population density | 947.369 | 852.026 | 0.048 | 0.020 | 0.000 |
| Distance to nearest refugee camp | 39.840 | 34.539 | 0.159 | 0.000 | 0.000 |
| Distance to military base | 47.094 | 41.463 | 0.186 | 0.000 | 0.000 |
| Deported in 1944 | 0.487 | 0.649 | 0.355 | 0.000 | 0.000 |
| Elevation | 443.965 | 463.997 | 0.045 | 0.039 | 0.000 |
| Slope | 3.126 | 3.345 | 0.060 | 0.007 | 0.000 |
| Percent Russian speaking | 71.609 | 67.894 | 0.247 | 0.000 | 0.000 |
| Forest | 0.202 | 0.262 | 0.219 | 0.000 | 0.000 |
| Distance to international checkpoint | 134.747 | 118.837 | 0.209 | 0.000 | 0.000 |
| Global suicide terrorism | 3.319 | 3.030 | 0.094 | 0.000 | 0.000 |
| Muslim holiday | 0.202 | 0.199 | 0.007 | 0.742 | 1.000 |
| Longitude | 44.784 | 45.096 | 0.151 | 0.000 | 0.000 |
| Latitude | 43.544 | 43.406 | 0.172 | 0.000 | 0.000 |
| Year | 2005.407 | 2004.625 | 0.291 | 0.000 | 0.000 |
| Month | 6.493 | 6.526 | 0.009 | 0.670 | 0.955 |
| Week | 296.594 | 255.927 | 0.290 | 0.000 | 0.000 |
| Nationalist | Treated | Control | SDM | TTest | KSTest |
| Insurgent violence (pre-T) | 0.801 | 1.298 | 0.269 | 0.000 | 0.000 |
| Government violence (pre-T) | 11.009 | 24.753 | 0.854 | 0.000 | 0.000 |
| Population density | 947.369 | 852.026 | 0.048 | 0.020 | 0.000 |
| Distance to nearest refugee camp | 39.840 | 34.539 | 0.159 | 0.000 | 0.000 |
| Distance to military base | 47.094 | 41.463 | 0.186 | 0.000 | 0.000 |
| Deported in 1944 | 0.487 | 0.649 | 0.355 | 0.000 | 0.000 |
| Elevation | 443.965 | 463.997 | 0.045 | 0.039 | 0.000 |
| Slope | 3.126 | 3.345 | 0.060 | 0.007 | 0.000 |
| Percent Russian speaking | 71.609 | 67.894 | 0.247 | 0.000 | 0.000 |
| Forest | 0.202 | 0.262 | 0.219 | 0.000 | 0.000 |
| Distance to international checkpoint | 134.747 | 118.837 | 0.209 | 0.000 | 0.000 |
| Global suicide terrorism | 3.319 | 3.030 | 0.094 | 0.000 | 0.000 |
| Muslim holiday | 0.202 | 0.199 | 0.007 | 0.742 | 1.000 |
| Longitude | 44.784 | 45.096 | 0.151 | 0.000 | 0.000 |
| Latitude | 43.544 | 43.406 | 0.172 | 0.000 | 0.000 |
| Year | 2005.407 | 2004.625 | 0.291 | 0.000 | 0.000 |
| Month | 6.493 | 6.526 | 0.009 | 0.670 | 0.955 |
| Week | 296.594 | 255.927 | 0.290 | 0.000 | 0.000 |

Table 13: **Balance statistics: Mahalanobis distance matching**

| Islamist | Treated | Control | SDM | TTest | KSTest |
|--------------------------------------|----------|----------|-------|-------|--------|
| Insurgent violence (pre-T) | 0.803 | 0.933 | 0.070 | 0.012 | 0.002 |
| Government violence (pre-T) | 11.045 | 14.851 | 0.236 | 0.000 | 0.000 |
| Population density | 944.498 | 856.634 | 0.045 | 0.089 | 0.001 |
| Distance to nearest refugee camp | 39.876 | 34.389 | 0.165 | 0.000 | 0.000 |
| Distance to military base | 47.105 | 43.894 | 0.106 | 0.000 | 0.000 |
| Deported in 1944 | 0.488 | 0.573 | 0.185 | 0.000 | 0.000 |
| Elevation | 444.579 | 431.653 | 0.029 | 0.290 | 0.051 |
| Slope | 3.130 | 3.065 | 0.018 | 0.518 | 0.244 |
| Percent Russian speaking | 71.582 | 69.790 | 0.119 | 0.000 | 0.000 |
| Forest | 0.203 | 0.218 | 0.057 | 0.051 | 0.009 |
| Distance to international checkpoint | 134.680 | 125.779 | 0.117 | 0.000 | 0.000 |
| Global suicide terrorism | 3.333 | 3.300 | 0.011 | 0.711 | 0.838 |
| Muslim holiday | 0.202 | 0.199 | 0.006 | 0.830 | 1.000 |
| Longitude | 44.783 | 45.010 | 0.110 | 0.000 | 0.000 |
| Latitude | 43.544 | 43.471 | 0.091 | 0.000 | 0.000 |
| Year | 2005.379 | 2005.133 | 0.092 | 0.001 | 0.004 |
| Month | 6.515 | 6.553 | 0.011 | 0.701 | 0.991 |
| Week | 295.200 | 282.526 | 0.091 | 0.001 | 0.001 |
| Nationalist | Treated | Control | SDM | TTest | KSTest |
| Insurgent violence (pre-T) | 0.803 | 0.933 | 0.070 | 0.012 | 0.002 |
| Government violence (pre-T) | 11.045 | 14.851 | 0.236 | 0.000 | 0.000 |
| Population density | 944.498 | 856.634 | 0.045 | 0.089 | 0.001 |
| Distance to nearest refugee camp | 39.876 | 34.389 | 0.165 | 0.000 | 0.000 |
| Distance to military base | 47.105 | 43.894 | 0.106 | 0.000 | 0.000 |
| Deported in 1944 | 0.488 | 0.573 | 0.185 | 0.000 | 0.000 |
| Elevation | 444.579 | 431.653 | 0.029 | 0.290 | 0.051 |
| Slope | 3.130 | 3.065 | 0.018 | 0.518 | 0.244 |
| Percent Russian speaking | 71.582 | 69.790 | 0.119 | 0.000 | 0.000 |
| Forest | 0.203 | 0.218 | 0.057 | 0.051 | 0.009 |
| Distance to international checkpoint | 134.680 | 125.779 | 0.117 | 0.000 | 0.000 |
| Global suicide terrorism | 3.333 | 3.300 | 0.011 | 0.711 | 0.838 |
| Muslim holiday | 0.202 | 0.199 | 0.006 | 0.830 | 1.000 |
| Longitude | 44.783 | 45.010 | 0.110 | 0.000 | 0.000 |
| Latitude | 43.544 | 43.471 | 0.091 | 0.000 | 0.000 |
| Year | 2005.379 | 2005.133 | 0.092 | 0.001 | 0.004 |
| Month | 6.515 | 6.553 | 0.011 | 0.701 | 0.991 |
| Week | 295.200 | 282.526 | 0.091 | 0.001 | 0.001 |

Table 14: **Balance statistics: Propensity score matching**

| Islamist | Treated | Control | SDM | TTest | KSTest |
|--------------------------------------|----------|----------|-------|-------|--------|
| Insurgent violence (pre-T) | 0.797 | 0.897 | 0.055 | 0.062 | 0.209 |
| Government violence (pre-T) | 11.046 | 13.120 | 0.129 | 0.000 | 0.000 |
| Population density | 944.672 | 907.153 | 0.019 | 0.493 | 0.412 |
| Distance to nearest refugee camp | 39.881 | 37.550 | 0.070 | 0.010 | 0.047 |
| Distance to military base | 47.112 | 46.159 | 0.031 | 0.257 | 0.362 |
| Deported in 1944 | 0.488 | 0.532 | 0.097 | 0.001 | 0.002 |
| Elevation | 444.654 | 465.141 | 0.046 | 0.113 | 0.226 |
| Slope | 3.131 | 3.321 | 0.052 | 0.079 | 0.138 |
| Percent Russian speaking | 71.584 | 70.720 | 0.057 | 0.043 | 0.118 |
| Forest | 0.203 | 0.223 | 0.075 | 0.012 | 0.137 |
| Distance to international checkpoint | 134.693 | 130.723 | 0.052 | 0.064 | 0.107 |
| Global suicide terrorism | 3.334 | 3.378 | 0.014 | 0.626 | 1.000 |
| Muslim holiday | 0.202 | 0.195 | 0.016 | 0.564 | 1.000 |
| Longitude | 44.782 | 44.797 | 0.007 | 0.796 | 0.279 |
| Latitude | 43.544 | 43.517 | 0.034 | 0.225 | 0.280 |
| Year | 2005.377 | 2005.166 | 0.079 | 0.006 | 0.045 |
| Month | 6.515 | 6.522 | 0.002 | 0.948 | 1.000 |
| Week | 295.113 | 284.078 | 0.080 | 0.005 | 0.024 |
| Nationalist | Treated | Control | SDM | TTest | KSTest |
| Insurgent violence (pre-T) | 0.797 | 0.897 | 0.055 | 0.062 | 0.209 |
| Government violence (pre-T) | 11.046 | 13.120 | 0.129 | 0.000 | 0.000 |
| Population density | 944.672 | 907.153 | 0.019 | 0.493 | 0.412 |
| Distance to nearest refugee camp | 39.881 | 37.550 | 0.070 | 0.010 | 0.047 |
| Distance to military base | 47.112 | 46.159 | 0.031 | 0.257 | 0.362 |
| Deported in 1944 | 0.488 | 0.532 | 0.097 | 0.001 | 0.002 |
| Elevation | 444.654 | 465.141 | 0.046 | 0.113 | 0.226 |
| Slope | 3.131 | 3.321 | 0.052 | 0.079 | 0.138 |
| Percent Russian speaking | 71.584 | 70.720 | 0.057 | 0.043 | 0.118 |
| Forest | 0.203 | 0.223 | 0.075 | 0.012 | 0.137 |
| Distance to international checkpoint | 134.693 | 130.723 | 0.052 | 0.064 | 0.107 |
| Global suicide terrorism | 3.334 | 3.378 | 0.014 | 0.626 | 1.000 |
| Muslim holiday | 0.202 | 0.195 | 0.016 | 0.564 | 1.000 |
| Longitude | 44.782 | 44.797 | 0.007 | 0.796 | 0.279 |
| Latitude | 43.544 | 43.517 | 0.034 | 0.225 | 0.280 |
| Year | 2005.377 | 2005.166 | 0.079 | 0.006 | 0.045 |
| Month | 6.515 | 6.522 | 0.002 | 0.948 | 1.000 |
| Week | 295.113 | 284.078 | 0.080 | 0.005 | 0.024 |

Table 15: **Balance statistics: Coarsened exact matching (CEM)**

| Islamist | Treated | Control | SDM | TTest | KSTest |
|--------------------------------------|----------|----------|-------|-------|--------|
| Insurgent violence (pre-T) | 1.039 | 1.061 | 0.011 | 0.824 | 1.000 |
| Government violence (pre-T) | 17.806 | 19.690 | 0.101 | 0.042 | 0.247 |
| Population density | 1019.347 | 942.513 | 0.040 | 0.376 | 0.965 |
| Distance to nearest refugee camp | 31.827 | 31.666 | 0.007 | 0.878 | 1.000 |
| Distance to military base | 40.786 | 39.368 | 0.054 | 0.243 | 0.735 |
| Deported in 1944 | 0.678 | 0.711 | 0.079 | 0.090 | 0.188 |
| Elevation | 472.559 | 479.284 | 0.015 | 0.753 | 0.960 |
| Slope | 3.451 | 3.490 | 0.010 | 0.833 | 0.999 |
| Percent Russian speaking | 66.446 | 65.817 | 0.051 | 0.272 | 0.596 |
| Forest | 0.253 | 0.255 | 0.009 | 0.842 | 0.997 |
| Distance to international checkpoint | 109.560 | 107.494 | 0.034 | 0.464 | 0.892 |
| Global suicide terrorism | 2.245 | 2.218 | 0.012 | 0.794 | 0.888 |
| Muslim holiday | 0.097 | 0.085 | 0.039 | 0.400 | 1.000 |
| Longitude | 45.304 | 45.316 | 0.009 | 0.845 | 0.917 |
| Latitude | 43.320 | 43.304 | 0.029 | 0.530 | 0.823 |
| Year | 2004.419 | 2004.271 | 0.058 | 0.217 | 0.439 |
| Month | 6.878 | 6.913 | 0.010 | 0.825 | 0.996 |
| Week | 246.659 | 239.070 | 0.058 | 0.221 | 0.174 |
| Nationalist | Treated | Control | SDM | TTest | KSTest |
| Insurgent violence (pre-T) | 1.039 | 1.061 | 0.011 | 0.824 | 1.000 |
| Government violence (pre-T) | 17.806 | 19.690 | 0.101 | 0.042 | 0.247 |
| Population density | 1019.347 | 942.513 | 0.040 | 0.376 | 0.965 |
| Distance to nearest refugee camp | 31.827 | 31.666 | 0.007 | 0.878 | 1.000 |
| Distance to military base | 40.786 | 39.368 | 0.054 | 0.243 | 0.735 |
| Deported in 1944 | 0.678 | 0.711 | 0.079 | 0.090 | 0.188 |
| Elevation | 472.559 | 479.284 | 0.015 | 0.753 | 0.960 |
| Slope | 3.451 | 3.490 | 0.010 | 0.833 | 0.999 |
| Percent Russian speaking | 66.446 | 65.817 | 0.051 | 0.272 | 0.596 |
| Forest | 0.253 | 0.255 | 0.009 | 0.842 | 0.997 |
| Distance to international checkpoint | 109.560 | 107.494 | 0.034 | 0.464 | 0.892 |
| Global suicide terrorism | 2.245 | 2.218 | 0.012 | 0.794 | 0.888 |
| Muslim holiday | 0.097 | 0.085 | 0.039 | 0.400 | 1.000 |
| Longitude | 45.304 | 45.316 | 0.009 | 0.845 | 0.917 |
| Latitude | 43.320 | 43.304 | 0.029 | 0.530 | 0.823 |
| Year | 2004.419 | 2004.271 | 0.058 | 0.217 | 0.439 |
| Month | 6.878 | 6.913 | 0.010 | 0.825 | 0.996 |
| Week | 246.659 | 239.070 | 0.058 | 0.221 | 0.174 |

Table 16: **Poisson regression: effect of counterinsurgency tactics on insurgent violence.**
Matching weights used for (51-56).

| <i>Dependent variable: Islamist (INS_ALL_I2, counts) or nationalist (INS_ALL_N2, counts) violence</i> | | | | | | | | |
|---|-------------------------|--------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|
| | Pre-Matching | | Mahalanobis | | Propensity Score | | CEM | |
| | (49) | (50) | (51) | (52) | (53) | (54) | (55) | (56) |
| | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist |
| Selective tactics (T) | −0.324*** (0.024) | −0.354*** (0.012) | −0.077** (0.032) | −0.118*** (0.016) | −0.023 (0.033) | −0.077*** (0.017) | −0.032 (0.049) | −0.052** (0.022) |
| Violence (pre-T) | 0.133*** (0.002) | 0.037*** (0.0003) | 0.118*** (0.004) | 0.051*** (0.001) | 0.125*** (0.004) | 0.049*** (0.001) | 0.095*** (0.006) | 0.035*** (0.001) |
| Global suicide terrorism | 0.041*** (0.003) | −0.009*** (0.002) | 0.047*** (0.005) | 0.007*** (0.003) | 0.041*** (0.005) | 0.008*** (0.003) | 0.084*** (0.010) | 0.002 (0.005) |
| Muslim holiday | −0.015 (0.025) | 0.003 (0.012) | 0.074** (0.037) | 0.013 (0.019) | 0.032 (0.039) | −0.073*** (0.021) | 0.487*** (0.072) | 0.003 (0.040) |
| Population density | −0.0001*** (0.00001) | −0.00003*** (0.00000) | −0.00001 (0.00001) | 0.00004*** (0.00001) | −0.00003** (0.00001) | 0.00003*** (0.00001) | −0.00005** (0.00002) | −0.00001 (0.00001) |
| Distance to border crossing | −0.001*** (0.0003) | −0.0003** (0.0001) | −0.002*** (0.0004) | −0.002*** (0.0002) | −0.002*** (0.0004) | −0.002*** (0.0002) | −0.003*** (0.001) | −0.001** (0.0003) |
| Distance to military base | −0.003*** (0.001) | −0.004*** (0.0003) | −0.002** (0.001) | −0.001* (0.0004) | −0.002*** (0.001) | −0.002*** (0.0004) | 0.0003 (0.001) | 0.0002 (0.001) |
| Distance to nearest refugee camp | −0.011*** (0.001) | −0.007*** (0.0003) | −0.012*** (0.001) | −0.007*** (0.0004) | −0.012*** (0.001) | −0.008*** (0.0004) | −0.014*** (0.002) | −0.001** (0.001) |
| Deported in 1944 | 0.771*** (0.038) | 0.984*** (0.020) | 0.458*** (0.051) | 0.769*** (0.027) | 0.418*** (0.050) | 0.723*** (0.026) | 0.377*** (0.092) | 0.881*** (0.045) |
| Constant | −0.116* (0.062) | 1.134*** (0.031) | −0.119 (0.084) | 0.878*** (0.044) | −0.108 (0.082) | 0.969*** (0.043) | 0.036 (0.150) | 0.790*** (0.070) |
| N | 8,738 | 8,738 | 5,239 | 5,225 | 5,162 | 5,164 | 1,782 | 1,783 |
| Log Likelihood | −12,886.550 | −31,343.210 | −6,714.133 | −14,876.390 | −6,451.932 | −14,451.450 | −2,518.268 | −5,880.758 |
| AIC | 25,793.110 | 62,706.420 | 13,448.270 | 29,772.780 | 12,923.860 | 28,922.900 | 5,056.536 | 11,781.520 |

*p < .1; **p < .05; ***p < .01

4.3 Sensitivity Analysis: Alternative Model Specifications

Tables O.17-O.20 report the results of several sensitivity analyses of Models 16 and 22. Table O.17 shows a replication using rayon-level random effects and fixed effects specifications. Table O.18 shows a replication using a rare-events correction, designed to address the potential that a logit regression might underestimate predicted probabilities of violence. Table O.19 shows a replication using bivariate probit, designed to address potential interdependence between the incidence of Islamist and nationalist violence. Finally, Table O.20 reports a hurdle model, designed to simultaneously model the occurrence of insurgent violence, and its intensity. The results reported in the paper do not change in any of these robustness checks.

Table 17: **Robustness check: mixed effects.** Replication of best-bitting models with intermediate definition (Model 16 for Islamist violence, Model 22 for nationalist violence). Random and fixed effects at the rayon (i) level. Time-invariant covariates drop out of fixed effects models (59, 60).

| <i>Dependent variable: Islamist (INS_ALL_I2.b) or nationalist (INS_ALL_N2.b) violence</i> | | | | |
|---|----------------------|----------------------|---------------------|---------------------|
| | Islamist (57) | Nationalist (58) | Islamist (59) | Nationalist (60) |
| Islamist violence (t-1) | 0.916*** (0.107) | | 0.881*** (0.106) | |
| Islamist violence in neighboring districts (t-1) | 0.121*** (0.031) | | 0.119*** (0.031) | |
| Nationalist violence (t-1) | | 1.081*** (0.050) | | 1.066*** (0.050) |
| Nationalist violence in neighboring districts (t-1) | | 0.173*** (0.008) | | 0.172*** (0.008) |
| Global suicide terrorism | 0.097*** (0.009) | 0.060*** (0.006) | 0.098*** (0.009) | 0.060*** (0.006) |
| Muslim holiday | 0.165** (0.073) | -0.044 (0.048) | 0.161** (0.073) | -0.043 (0.048) |
| ChRI holiday | 0.010 (0.084) | 0.092* (0.051) | 0.012 (0.083) | 0.092* (0.051) |
| Population Density | 0.0001 (0.0001) | 0.0001 (0.0001) | | |
| Distance to border crossing | -0.004** (0.002) | -0.005*** (0.001) | | |
| Distance to military base | 0.003 (0.004) | 0.007 (0.004) | | |
| Distance to nearest refugee camp | -0.014*** (0.003) | -0.012*** (0.003) | | |
| Deported in 1944 | 1.252*** (0.344) | 1.378*** (0.336) | | |
| Constant | -5.411*** (0.420) | -4.350*** (0.392) | | |
| Random/fixed effects? | RE | RE | FE | FE |
| N | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -5,221.403 | -11,179.080 | -4,957.734 | -10,835.270 |
| AIC | 10,466.810 | 22,382.160 | 10,325.470 | 22,080.540 |

*p < .1; **p < .05; ***p < .01

Table 18: **Robustness check: rare events logit.** Replication of best-bitting models with intermediate definition (Model 16 for Islamist violence, Model 22 for nationalist violence).

| <i>Dependent variable: Islamist (INS_ALL_I2.b) or nationalist (INS_ALL_N2.b) violence</i> | | |
|---|------------------------|------------------------|
| | Islamist | Nationalist |
| | (61) | (62) |
| Islamist violence (t-1) | 1.777*** (0.101) | |
| Islamist violence in neighboring districts (t-1) | 0.116*** (0.029) | |
| Nationalist violence (t-1) | | 1.859*** (0.048) |
| Nationalist violence in neighboring districts (t-1) | | 0.147*** (0.007) |
| Global suicide terrorism | 0.090*** (0.009) | 0.055*** (0.006) |
| Muslim holiday | 0.157** (0.072) | -0.044 (0.046) |
| ChRI holiday | 0.020 (0.082) | 0.089* (0.049) |
| Population Density | 0.00004** (0.00002) | 0.0001*** (0.00001) |
| Distance to border crossing | -0.005*** (0.0005) | -0.005*** (0.0003) |
| Distance to military base | -0.001 (0.001) | 0.001 (0.001) |
| Distance to nearest refugee camp | -0.013*** (0.001) | -0.011*** (0.001) |
| Deported in 1944 | 1.202*** (0.082) | 1.284*** (0.052) |
| Constant | -4.169*** (0.125) | -3.415*** (0.079) |
| N | 125,400 | 125,400 |
| Log Likelihood | -5,679.373 | -12,393.450 |
| AIC | 11,380.750 | 24,808.910 |
| τ | 0.0092 | 0.0286 |

*p < .1; **p < .05; ***p < .01

Table 19: **Robustness check: bivariate probit.** Replication of best-bitting models with intermediate definition (Model 16 for Islamist violence, Model 22 for nationalist violence).

| <i>Dependent variable: Islamist (INS_ALL_I2.b) or nationalist (INS_ALL_N2.b) violence</i> | | |
|---|-------------------------|--------------------------|
| | Islamist | Nationalist |
| | | (63) |
| Islamist violence (t-1) | 0.767*** (0.053) | |
| Islamist violence in neighboring districts (t-1) | 0.071*** (0.013) | |
| Nationalist violence (t-1) | | 0.936*** (0.026) |
| Nationalist violence in neighboring districts (t-1) | | 0.083*** (0.004) |
| Global suicide terrorism | 0.038*** (0.004) | 0.027*** (0.003) |
| Muslim holiday | 0.066** (0.029) | -0.025 (0.021) |
| ChRI holiday | 0.021 (0.032) | 0.041* (0.023) |
| Population Density | 0.00002** (0.000007) | 0.00004*** (0.000005) |
| Distance to border crossing | -0.002*** (0.0002) | -0.002*** (.0001) |
| Distance to military base | -0.0004 (0.0005) | 0.0006* (0.0003) |
| Distance to nearest refugee camp | -0.005*** (0.0004) | -0.004*** (0.0003) |
| Deported in 1944 | 0.485*** (0.031) | 0.576*** (0.022) |
| Constant | -2.222*** (0.047) | -1.898*** (0.033) |
| ρ | | 0.786*** (0.043) |
| N | | 125,400 |
| Log likelihood | | -17823.91 |

*p < .1; **p < .05; ***p < .01

Table 20: **Robustness check: hurdle model.** Replication of best-bitting models with intermediate definition (Model 16 for Islamist violence, Model 22 for nationalist violence).

| <i>Dependent variable: Islamist (INS_ALL_I2, counts) or nationalist (INS_ALL_N2, counts) violence</i> | | | | |
|---|-------------------------|----------------------|------------------------|---------------------|
| | Islamist (64) | | Nationalist (65) | |
| | Zero | Count | Zero | Count |
| Islamist violence (t-1) | 0.807*** (0.058) | 0.366*** (0.083) | | |
| Islamist violence in neighboring districts (t-1) | 0.141*** (0.027) | -0.005 (0.077) | | |
| Nationalist violence (t-1) | | | 0.712*** (0.024) | 0.278*** (0.063) |
| Nationalist violence in neighboring districts (t-1) | | | 0.161*** (0.007) | 0.004 (0.012) |
| Global suicide terrorism | 0.092*** (0.009) | 0.031 (0.022) | 0.057*** (0.006) | -0.011 (0.012) |
| Muslim holiday | 0.168** (0.072) | -0.150 (0.176) | -0.046 (0.046) | -0.071 (0.088) |
| ChRI holiday | 0.011 (0.082) | 0.286 (0.193) | 0.085 (0.049) | -0.017 (0.090) |
| Population Density | 0.00005*** (0.00001) | -0.0001 (0.0001) | 0.0001*** (0.00001) | 0.00001 (0.0003) |
| Distance to border crossing | -0.005*** (0.0005) | -0.003 (0.002) | -0.005*** (0.0003) | -0.001 (0.001) |
| Distance to military base | -0.001 (0.001) | -0.0003 (0.003) | 0.002** (0.0008) | -0.008** (0.004) |
| Distance to nearest refugee camp | -0.013*** (0.001) | -0.009** (0.004) | -0.011*** (0.0007) | -0.006* (0.004) |
| Deported in 1944 | 1.249*** (0.086) | -0.002 (0.253) | 1.368*** (0.052) | 0.135 (0.350) |
| Constant | -4.158*** (0.129) | -13.243 (215.830) | -3.372*** (0.078) | -1.017 (2.585) |
| N | 125,400 | | 125,400 | |
| Log likelihood | -6,551.250 | | -16,505.670 | |

*p < .1; **p < .05; ***p < .01

4.4 Sensitivity Analysis: Time Effects

Tables O.21-O.28 report the results of sensitivity analyses we performed to address the concern that Islamist violence emerged later in the conflict than nationalist violence, and many of our empirical results may be driven by this time effect. Tables O.21-O.24 replicate the models in Table O.5-O.6, with a linear time trend (O.21-O.22) and yearly dummies (O.23-O.24). The results suggest that nationalist violence has indeed been declining over time, but the propensity of Islamist violence has been time-invariant. All other results are robust to this expanded model specification.

The remaining tables in the current section replicate the main results reported above and in the main text, using a restricted sample of the data, with a narrower time window of 2004-2006. This analysis had three parts. First, we examined whether the empirical determinants of Islamist and nationalist violence in 2004-2006 differed from those in the broader sample (intermediate definition, as reported in Table O.5-O.6). The new results, shown in Tables O.25-O.26, are consistent with the more general ones we reported before. Second, we sought to pre-process the data with matching and create balanced sample in which selective and indiscriminate operations by government forces were equally likely to occur in 2004-2006, conditional on the observable pre-treatment covariates. Finally, we sought to identify the effect of selective tactics on rebel violence within this balanced sample. The algorithm that produced the largest improvement in balance was propensity score matching, at 79-85 percent. According to this matched sample, selective tactics were again more effective at suppressing rebel violence, but only with regard to nationalists (models 82 and 83 in Table O.28).

Table 21: **Autologistic regression: Islamist violence, linear time trend** (intermediate definition)

| <i>Dependent variable: Islamist violence (binary) (INS_ALL_I2.b)</i> | | | | | | |
|--|----------------------|----------------------|-----------------------|------------------------|----------------------|-----------------------|
| | (66) | (67) | (68) | (69) | (70) | (71) |
| Violence (t-1) | 1.873*** (0.101) | 1.864*** (0.101) | 1.777*** (0.101) | 1.771*** (0.101) | 1.876*** (0.101) | 1.862*** (0.101) |
| Violence in neighboring districts (t-1) | 0.147*** (0.028) | 0.146*** (0.028) | 0.117*** (0.029) | 0.114*** (0.029) | 0.148*** (0.028) | 0.140*** (0.028) |
| Population Density | 0.00003 (0.00002) | 0.00003 (0.00002) | -0.00001 (0.00002) | 0.00004** (0.00002) | 0.00002 (0.00002) | 0.00003* (0.00002) |
| Slope | 0.012 (0.010) | | | | | |
| Elevation | | 0.0002** (0.0001) | | | | |
| Percent Russian speaking | | | -0.023*** (0.002) | | | |
| Distance to border crossing | | | | -0.005*** (0.0005) | | |
| Distance to pipeline | | | | | -0.0004 (0.001) | |
| Percent forest cover | | | | | | 0.438*** (0.120) |
| Global suicide terrorism | 0.092*** (0.009) | 0.092*** (0.009) | 0.093*** (0.009) | 0.093*** (0.009) | 0.092*** (0.009) | 0.092*** (0.009) |
| Distance to military base | -0.003*** (0.001) | -0.003** (0.001) | -0.004*** (0.001) | -0.001 (0.001) | -0.003*** (0.001) | -0.003*** (0.001) |
| Distance to nearest refugee camp | -0.015*** (0.001) | -0.015*** (0.001) | -0.016*** (0.001) | -0.013*** (0.001) | -0.015*** (0.001) | -0.015*** (0.001) |
| Deported in 1944 | 1.371*** (0.080) | 1.391*** (0.078) | 1.067*** (0.085) | 1.202*** (0.082) | 1.395*** (0.079) | 1.305*** (0.082) |
| Muslim holiday | 0.152** (0.072) | 0.152** (0.072) | 0.150** (0.072) | 0.154** (0.072) | 0.151** (0.072) | 0.151** (0.072) |
| ChRI holiday | 0.017 (0.082) | 0.017 (0.082) | 0.014 (0.082) | 0.015 (0.082) | 0.017 (0.082) | 0.017 (0.082) |
| Year | -0.015 (0.010) | -0.015 (0.010) | -0.014 (0.010) | -0.015 (0.010) | -0.014 (0.010) | -0.014 (0.010) |
| Constant | 24.367 (19.387) | 24.419 (19.387) | 25.158 (19.382) | 25.307 (19.384) | 24.188 (19.388) | 24.038 (19.384) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -5,731.725 | -5,730.069 | -5,683.319 | -5,678.213 | -5,732.479 | -5,726.052 |
| AIC | 11,487.450 | 11,484.140 | 11,390.640 | 11,380.420 | 11,488.960 | 11,476.100 |

*p < .1; **p < .05; ***p < .01

Table 22: **Autologistic regression: Nationalist violence, linear time trend** (intermediate definition)

| <i>Dependent variable: Nationalist violence (binary) (INS_ALL_N2.b)</i> | | | | | | |
|---|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|
| | (66) | (67) | (68) | (69) | (70) | (71) |
| Violence (t-1) | 1.920*** (0.048) | 1.916*** (0.048) | 1.819*** (0.048) | 1.830*** (0.048) | 1.918*** (0.048) | 1.913*** (0.048) |
| Violence in neighboring districts (t-1) | 0.157*** (0.007) | 0.156*** (0.007) | 0.134*** (0.007) | 0.139*** (0.007) | 0.157*** (0.007) | 0.154*** (0.007) |
| Population Density | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.00004*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) |
| Slope | 0.002 (0.006) | | | | | |
| Elevation | | 0.0001** (0.00004) | | | | |
| Percent Russian speaking | | | -0.024*** (0.001) | | | |
| Distance to border crossing | | | | -0.005*** (0.0003) | | |
| Distance to pipeline | | | | | 0.001 (0.001) | |
| Percent forest cover | | | | | | 0.267*** (0.074) |
| Global suicide terrorism | 0.067*** (0.006) | 0.067*** (0.006) | 0.068*** (0.006) | 0.068*** (0.006) | 0.067*** (0.006) | 0.067*** (0.006) |
| Distance to military base | -0.001 (0.001) | -0.001 (0.001) | -0.002*** (0.001) | 0.001 (0.001) | -0.001 (0.001) | -0.001 (0.001) |
| Distance to nearest refugee camp | -0.013*** (0.001) | -0.013*** (0.001) | -0.014*** (0.001) | -0.011*** (0.001) | -0.013*** (0.001) | -0.013*** (0.001) |
| Deported in 1944 | 1.461*** (0.051) | 1.461*** (0.050) | 1.139*** (0.054) | 1.282*** (0.052) | 1.456*** (0.050) | 1.410*** (0.052) |
| Muslim holiday | -0.050 (0.046) | -0.049 (0.046) | -0.049 (0.047) | -0.048 (0.047) | -0.050 (0.046) | -0.049 (0.046) |
| ChRI holiday | 0.082* (0.049) | 0.082* (0.049) | 0.082* (0.049) | 0.080 (0.050) | 0.082* (0.049) | 0.082* (0.049) |
| Year | -0.050*** (0.006) | -0.050*** (0.006) | -0.051*** (0.006) | -0.052*** (0.006) | -0.050*** (0.006) | -0.050*** (0.006) |
| Constant | 96.030 (12.248) | 96.562*** (12.246) | 99.981*** (12.245) | 100.987*** (12.251) | 96.302*** (12.244) | 96.455*** (12.241) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -12,489.260 | -12,486.940 | -12,352.810 | -12,356.420 | -12,487.970 | -12,482.820 |
| AIC | 25,002.520 | 24,997.890 | 24,729.620 | 24,736.830 | 24,999.930 | 24,989.630 |

*p < .1; **p < .05; ***p < .01

Table 23: **Autologistic regression: Islamist violence, yearly dummies** (intermediate definition)

| <i>Dependent variable: Islamist violence (binary) (INS_ALL_I2.b)</i> | | | | | | |
|--|----------------------|----------------------|-----------------------|------------------------|----------------------|-----------------------|
| | (66) | (67) | (68) | (69) | (70) | (71) |
| Violence (t-1) | 1.603*** (0.101) | 1.594*** (0.101) | 1.508*** (0.102) | 1.499*** (0.102) | 1.607*** (0.101) | 1.592*** (0.101) |
| Violence in neighboring districts (t-1) | 0.086*** (0.031) | 0.084*** (0.031) | 0.044 (0.033) | 0.041 (0.033) | 0.088*** (0.031) | 0.077** (0.032) |
| Population Density | 0.00003 (0.00002) | 0.00003 (0.00002) | -0.00001 (0.00002) | 0.00004** (0.00002) | 0.00002 (0.00002) | 0.00003* (0.00002) |
| Slope | 0.013 (0.010) | | | | | |
| Elevation | | 0.0002** (0.0001) | | | | |
| Percent Russian speaking | | | -0.023*** (0.002) | | | |
| Distance to border crossing | | | | -0.005*** (0.0005) | | |
| Distance to pipeline | | | | | -0.001 (0.001) | |
| Percent forest cover | | | | | | 0.458*** (0.120) |
| Global suicide terrorism | 0.027** (0.012) | 0.027** (0.012) | 0.027** (0.012) | 0.027** (0.012) | 0.027** (0.012) | 0.027** (0.012) |
| Distance to military base | -0.003*** (0.001) | -0.003*** (0.001) | -0.004*** (0.001) | -0.001 (0.001) | -0.003*** (0.001) | -0.003*** (0.001) |
| Distance to nearest refugee camp | -0.015*** (0.001) | -0.015*** (0.001) | -0.016*** (0.001) | -0.013*** (0.001) | -0.015*** (0.001) | -0.016*** (0.001) |
| Deported in 1944 | 1.408*** (0.080) | 1.430*** (0.078) | 1.100*** (0.085) | 1.241*** (0.082) | 1.434*** (0.079) | 1.340*** (0.082) |
| Muslim holiday | 0.173** (0.072) | 0.174** (0.072) | 0.172** (0.072) | 0.175** (0.072) | 0.173** (0.072) | 0.173** (0.072) |
| ChRI holiday | 0.060 (0.082) | 0.060 (0.082) | 0.057 (0.082) | 0.058 (0.082) | 0.059 (0.082) | 0.059 (0.082) |
| Constant | -6.634*** (0.368) | -6.683*** (0.369) | -4.603*** (0.417) | -5.999*** (0.373) | -6.611*** (0.369) | -6.646*** (0.368) |
| Year dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -5,510.312 | -5,508.479 | -5,458.194 | -5,452.827 | -5,511.165 | -5,504.215 |
| AIC | 11,066.620 | 11,062.960 | 10,962.390 | 10,951.650 | 11,068.330 | 11,054.430 |

*p < .1; **p < .05; ***p < .01

Table 24: **Autologistic regression: Nationalist violence, yearly dummies** (intermediate definition)

| <i>Dependent variable: Nationalist violence (binary) (INS_ALL_N2.b)</i> | | | | | | |
|---|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|
| | (66) | (67) | (68) | (69) | (70) | (71) |
| Violence (t-1) | 1.769*** (0.048) | 1.765*** (0.048) | 1.656*** (0.049) | 1.671*** (0.049) | 1.768*** (0.048) | 1.761*** (0.048) |
| Violence in neighboring districts (t-1) | 0.127*** (0.007) | 0.126*** (0.007) | 0.100*** (0.007) | 0.107*** (0.007) | 0.127*** (0.007) | 0.123*** (0.007) |
| Population Density | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.00004*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) |
| Slope | 0.001 (0.006) | | | | | |
| Elevation | | 0.0001** (0.00004) | | | | |
| Percent Russian speaking | | | -0.026*** (0.001) | | | |
| Distance to border crossing | | | | -0.005*** (0.0003) | | |
| Distance to pipeline | | | | | 0.001 (0.001) | |
| Percent forest cover | | | | | | 0.298*** (0.074) |
| Global suicide terrorism | 0.022*** (0.008) | 0.022*** (0.008) | 0.022*** (0.008) | 0.022*** (0.008) | 0.022*** (0.008) | 0.022*** (0.008) |
| Distance to military base | -0.001* (0.001) | -0.001 (0.001) | -0.002*** (0.001) | 0.001 (0.001) | -0.001* (0.001) | -0.001* (0.001) |
| Distance to nearest refugee camp | -0.013*** (0.001) | -0.013*** (0.001) | -0.014*** (0.001) | -0.011*** (0.001) | -0.013*** (0.001) | -0.013*** (0.001) |
| Deported in 1944 | 1.526*** (0.051) | 1.526*** (0.050) | 1.197*** (0.054) | 1.352*** (0.052) | 1.521*** (0.050) | 1.470*** (0.052) |
| Muslim holiday | -0.024 (0.047) | -0.024 (0.047) | -0.023 (0.047) | -0.022 (0.047) | -0.024 (0.047) | -0.023 (0.047) |
| ChRI holiday | 0.107** (0.050) | 0.107** (0.050) | 0.106** (0.050) | 0.105** (0.050) | 0.107** (0.050) | 0.107** (0.050) |
| Constant | -4.488*** (0.120) | -4.521*** (0.121) | -2.293*** (0.173) | -3.858*** (0.126) | -4.501*** (0.121) | -4.503*** (0.120) |
| Year dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -12,211.400 | -12,208.890 | -12,056.680 | -12,064.960 | -12,210.160 | -12,203.450 |
| AIC | 24,468.800 | 24,463.780 | 24,159.370 | 24,175.920 | 24,466.330 | 24,452.910 |

*p < .1; **p < .05; ***p < .01

Table 25: **Autologistic regression: Islamist violence, 2004-2006** (intermediate definition)

| | <i>Dependent variable: Islamist violence (binary) (INS_ALL_I2.b)</i> | | | | | |
|---|--|----------------------|-----------------------|----------------------|----------------------|----------------------|
| | (66) | (67) | (68) | (69) | (70) | (71) |
| Violence (t-1) | 1.678*** (0.129) | 1.673*** (0.129) | 1.600*** (0.129) | 1.589*** (0.129) | 1.676*** (0.129) | 1.667*** (0.129) |
| Violence in neighboring districts (t-1) | 0.163*** (0.041) | 0.160*** (0.041) | 0.121*** (0.043) | 0.118*** (0.042) | 0.162*** (0.041) | 0.152*** (0.042) |
| Population Density | 0.00001 (0.00003) | 0.00001 (0.00003) | -0.00002 (0.00003) | 0.00003 (0.00003) | 0.00001 (0.00003) | 0.00002 (0.00003) |
| Slope | -0.003 (0.014) | | | | | |
| Elevation | | 0.0001 (0.0001) | | | | |
| Percent Russian speaking | | | -0.019*** (0.003) | | | |
| Distance to border crossing | | | | -0.004*** (0.001) | | |
| Distance to pipeline | | | | | 0.002 (0.002) | |
| Percent forest cover | | | | | | 0.381** (0.172) |
| Global suicide terrorism | 0.032** (0.016) | 0.032** (0.016) | 0.032** (0.016) | 0.032** (0.016) | 0.032** (0.016) | 0.032** (0.016) |
| Distance to military base | -0.003* (0.002) | -0.003 (0.002) | -0.004** (0.002) | -0.001 (0.002) | -0.003* (0.002) | -0.003* (0.002) |
| Distance to nearest refugee camp | -0.014*** (0.002) | -0.014*** (0.002) | -0.015*** (0.002) | -0.012*** (0.002) | -0.014*** (0.002) | -0.014*** (0.002) |
| Deported in 1944 | 1.283*** (0.114) | 1.275*** (0.111) | 1.009*** (0.120) | 1.107*** (0.116) | 1.270*** (0.111) | 1.199*** (0.117) |
| Muslim holiday | 0.282*** (0.101) | 0.282*** (0.101) | 0.283*** (0.101) | 0.286*** (0.101) | 0.282*** (0.101) | 0.283*** (0.101) |
| ChRI holiday | 0.013 (0.119) | 0.015 (0.119) | 0.011 (0.119) | 0.016 (0.119) | 0.014 (0.119) | 0.015 (0.119) |
| Constant | -3.931*** (0.159) | -3.977*** (0.162) | -2.266*** (0.320) | -3.351*** (0.180) | -3.957*** (0.159) | -3.954*** (0.158) |
| N | 31,200 | 31,200 | 31,200 | 31,200 | 31,200 | 31,200 |
| Log Likelihood | -2,540.280 | -2,539.653 | -2,522.478 | -2,516.644 | -2,539.915 | -2,537.917 |
| AIC | 5,102.561 | 5,101.306 | 5,066.957 | 5,055.289 | 5,101.831 | 5,097.834 |
| ROC AUC | 0.799 | 0.798 | 0.800 | 0.802 | 0.798 | 0.798 |

*p < .1; **p < .05; ***p < .01

Table 26: **Autologistic regression: Nationalist violence, 2004-2006** (intermediate definition)

| <i>Dependent variable: Nationalist violence (binary) (INS_ALL_N2.b)</i> | | | | | | |
|---|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|
| | (72) | (73) | (74) | (75) | (76) | (77) |
| Violence (t-1) | 1.948*** (0.048) | 1.944*** (0.048) | 1.849*** (0.048) | 1.860*** (0.048) | 1.946*** (0.048) | 1.941*** (0.048) |
| Violence in neighboring districts (t-1) | 0.163*** (0.007) | 0.163*** (0.007) | 0.141*** (0.007) | 0.147*** (0.007) | 0.163*** (0.007) | 0.161*** (0.007) |
| Population Density | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.00004*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) | 0.0001*** (0.00001) |
| Slope | 0.0002 (0.006) | | | | | |
| Elevation | | 0.0001** (0.00004) | | | | |
| Percent Russian speaking | | | -0.024*** (0.001) | | | |
| Distance to border crossing | | | | -0.005*** (0.0003) | | |
| Distance to pipeline | | | | | 0.001 (0.001) | |
| Percent forest cover | | | | | | 0.259*** (0.074) |
| Global suicide terrorism | 0.054*** (0.006) | 0.054*** (0.006) | 0.056*** (0.006) | 0.055*** (0.006) | 0.055*** (0.006) | 0.054*** (0.006) |
| Distance to military base | -0.001 (0.001) | -0.001 (0.001) | -0.002*** (0.001) | 0.001 (0.001) | -0.001 (0.001) | -0.001 (0.001) |
| Distance to nearest refugee camp | -0.012*** (0.001) | -0.013*** (0.001) | -0.014*** (0.001) | -0.011*** (0.001) | -0.013*** (0.001) | -0.013*** (0.001) |
| Deported in 1944 | 1.465*** (0.051) | 1.463*** (0.050) | 1.138*** (0.054) | 1.284*** (0.052) | 1.458*** (0.050) | 1.413*** (0.052) |
| Muslim holiday | -0.047 (0.046) | -0.046 (0.046) | -0.047 (0.046) | -0.045 (0.046) | -0.047 (0.046) | -0.046 (0.046) |
| ChRI holiday | 0.090* (0.049) | 0.090* (0.049) | 0.090* (0.049) | 0.088* (0.049) | 0.090* (0.049) | 0.091* (0.049) |
| Constant | -4.020*** (0.069) | -4.050*** (0.070) | -1.949*** (0.143) | -3.413*** (0.079) | -4.033*** (0.069) | -4.033*** (0.069) |
| N | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 | 125,400 |
| Log Likelihood | -12,523.270 | -12,521.350 | -12,388.130 | -12,393.450 | -12,522.190 | -12,517.170 |
| AIC | 25,068.540 | 25,064.710 | 24,798.260 | 24,808.910 | 25,066.390 | 25,056.340 |
| ROC AUC | 0.845 | 0.844 | 0.841 | 0.845 | 0.844 | 0.844 |

*p < .1; **p < .05; ***p < .01

Table 27: **Summary statistics of matched samples, 2000-2004.** Treated: number of cases of government selective violence. Control: number of cases of government indiscriminate violence. SDM: average standardized difference in means between treated and control groups (all pre-treatment covariates). Improvement: proportion of imbalance reduction from pre-matched data.

| | Treated | Control | SDM | Improvement |
|--------------------------------|---------|---------|------|-------------|
| Pre-Matching (Islamist) | 1234 | 2515 | 0.26 | 0.00 |
| Pre-Matching (Nationalist) | 1234 | 2515 | 0.29 | 0.00 |
| Mahalanobis (Islamist) | 1234 | 793 | 0.09 | 66.20 |
| Mahalanobis (Nationalist) | 1234 | 785 | 0.09 | 67.56 |
| Propensity Score (Islamist) | 1234 | 782 | 0.05 | 79.16 |
| Propensity Score (Nationalist) | 1232 | 769 | 0.04 | 85.15 |
| CEM (Islamist) | 390 | 474 | 0.05 | 80.12 |
| CEM (Nationalist) | 391 | 465 | 0.05 | 82.17 |

Table 28: **Poisson regression: effect of counterinsurgency tactics on insurgent violence, 2004-2006.**
Matching weights used for (80-85).

| <i>Dependent variable: Islamist (INS_ALL_I2, counts) or nationalist (INS_ALL_N2, counts) violence</i> | | | | | | | | |
|---|-------------------------|-----------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|
| | Pre-Matching | | Mahalanobis | | Propensity Score | | CEM | |
| | (78) | (79) | (80) | (81) | (82) | (83) | (84) | (85) |
| | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist |
| Selective tactics (T) | −0.260*** (0.033) | −0.318*** (0.018) | 0.028 (0.046) | −0.180*** (0.024) | −0.038 (0.046) | −0.061** (0.025) | 0.051 (0.065) | −0.031 (0.031) |
| Violence (pre-T) | 0.119*** (0.003) | 0.034*** (0.0003) | 0.084*** (0.006) | 0.050*** (0.001) | 0.083*** (0.005) | 0.048*** (0.001) | 0.083*** (0.009) | 0.042*** (0.002) |
| Global suicide terrorism | 0.016*** (0.005) | −0.025*** (0.003) | 0.023*** (0.008) | 0.008* (0.005) | 0.018** (0.009) | 0.004 (0.005) | 0.035** (0.018) | −0.045*** (0.009) |
| Muslim holiday | −0.056 (0.034) | 0.010 (0.017) | 0.087 (0.055) | −0.194*** (0.032) | 0.172*** (0.054) | −0.242*** (0.034) | 0.390*** (0.094) | −0.285*** (0.063) |
| Population density | −0.0001*** (0.00001) | −0.00000 (0.00001) | −0.00001 (0.00002) | 0.0001*** (0.00001) | −0.00002 (0.00002) | 0.0001*** (0.00001) | −0.00002 (0.00002) | 0.0001*** (0.00001) |
| Distance to border crossing | −0.001*** (0.0003) | −0.002*** (0.0002) | −0.003*** (0.0005) | −0.003*** (0.0003) | −0.003*** (0.0005) | −0.003*** (0.0003) | −0.002** (0.001) | −0.002*** (0.0004) |
| Distance to military base | −0.002*** (0.001) | −0.001*** (0.0004) | −0.002** (0.001) | 0.003*** (0.001) | −0.002** (0.001) | 0.001*** (0.001) | 0.001 (0.002) | 0.007*** (0.001) |
| Distance to nearest refugee camp | −0.008*** (0.001) | −0.005*** (0.0004) | −0.009*** (0.001) | −0.005*** (0.001) | −0.011*** (0.001) | −0.005*** (0.001) | −0.008*** (0.002) | −0.001 (0.001) |
| Deported in 1944 | 0.807*** (0.049) | 1.134*** (0.028) | 0.370*** (0.068) | 0.831*** (0.038) | 0.330*** (0.067) | 0.805*** (0.039) | 0.474*** (0.114) | 0.907*** (0.060) |
| Constant | 0.113 (0.083) | 1.183*** (0.044) | 0.299** (0.116) | 0.987*** (0.065) | 0.462*** (0.110) | 1.002*** (0.064) | −0.075 (0.193) | 0.791*** (0.099) |
| N | 3,749 | 3,749 | 2,027 | 2,019 | 2,016 | 2,001 | 864 | 856 |
| Log Likelihood | −6,338.809 | −12,499.820 | −3,014.006 | −5,423.670 | −3,034.297 | −5,277.100 | −1,286.197 | −2,454.715 |
| AIC | 12,697.620 | 25,019.650 | 6,048.013 | 10,867.340 | 6,088.594 | 10,574.200 | 2,592.393 | 4,929.431 |

*p < .1; **p < .05; ***p < .01

4.5 Sensitivity Analysis: Local and Federal Forces

Tables O.29-O.30 report the results of additional sensitivity analyses we performed to address the potential alternative explanation that variation in post-counterinsurgency rebel violence is driven by the type of actors performing the counterinsurgency, rather than the types of tactics used. This analysis had two parts. First, we first sought to create a balanced sample in which operations by federal and local forces were equally likely to occur, conditional on the observable pre-treatment covariates. Second, we sought to identify the effect of local agency on rebel violence within this balanced sample. The algorithm that produced the largest improvement in balance was propensity score matching, at 85-88 percent. According to this matched sample, local forces were more effective at suppressing rebel violence, but only with regard to nationalists (models 90 and 91 in Table O.30). According to the most conservative matched sample (CEM, models 92 and 93 in Table O.30), local forces did not have a significant advantage against either type of rebel.

Table 29: **Summary statistics of matched samples, local (T) and federal (C) forces.** Treated: number of cases of local government operations. Control: number of cases of federal government operations. SDM: average standardized difference in means between treated and control groups (all pre-treatment covariates). Improvement: proportion of imbalance reduction from pre-matched data.

| | Treated | Control | SDM | Improvement |
|--------------------------------|---------|---------|------|-------------|
| Pre-Matching (Islamist) | 539 | 3025 | 0.23 | 0.00 |
| Pre-Matching (Nationalist) | 539 | 3025 | 0.26 | 0.00 |
| Mahalanobis (Islamist) | 539 | 457 | 0.07 | 67.53 |
| Mahalanobis (Nationalist) | 539 | 449 | 0.08 | 67.56 |
| Propensity Score (Islamist) | 536 | 442 | 0.03 | 85.03 |
| Propensity Score (Nationalist) | 538 | 445 | 0.03 | 88.12 |
| CEM (Islamist) | 199 | 278 | 0.05 | 80.04 |
| CEM (Nationalist) | 204 | 281 | 0.05 | 80.19 |

Table 30: **Poisson regression: effect of counterinsurgent type on insurgent violence, local (T) and federal (C) forces.** Matching weights used for (88-93).

| <i>Dependent variable: Islamist (INS_ALL_I2, counts) or nationalist (INS_ALL_N2, counts) violence</i> | | | | | | | | |
|---|-------------------------|-----------------------|-----------------------|-------------------------|-----------------------|------------------------|-----------------------|------------------------|
| | Pre-Matching | | Mahalanobis | | Propensity Score | | CEM | |
| | (86) | (87) | (88) | (89) | (90) | (91) | (92) | (93) |
| | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist |
| Local forces (T) | −0.210*** (0.046) | −0.309*** (0.026) | −0.208*** (0.059) | −0.171*** (0.034) | −0.050 (0.063) | −0.193*** (0.034) | −0.105 (0.079) | −0.025 (0.043) |
| Violence (pre-T) | 0.118*** (0.003) | 0.034*** (0.0003) | 0.077*** (0.007) | 0.039*** (0.002) | 0.082*** (0.007) | 0.040*** (0.002) | 0.104*** (0.009) | 0.036*** (0.002) |
| Global suicide terrorism | 0.016*** (0.005) | −0.025*** (0.003) | −0.010 (0.012) | 0.001 (0.007) | −0.012 (0.013) | 0.026*** (0.007) | 0.055** (0.022) | −0.027** (0.012) |
| Muslim holiday | −0.067* (0.034) | 0.006 (0.017) | −0.016 (0.080) | −0.109** (0.048) | −0.084 (0.089) | −0.186*** (0.050) | 0.445*** (0.141) | −0.043 (0.089) |
| Population density | −0.0001*** (0.00002) | −0.00001 (0.00001) | −0.00002 (0.00002) | 0.00005*** (0.00001) | −0.00004 (0.00002) | 0.00002** (0.00001) | −0.00004 (0.00003) | 0.0001*** (0.00002) |
| Distance to border crossing | −0.001*** (0.0003) | −0.002*** (0.0002) | −0.004*** (0.001) | −0.003*** (0.0004) | −0.003*** (0.001) | −0.003*** (0.0004) | 0.001 (0.001) | −0.001 (0.001) |
| Distance to military base | −0.002*** (0.001) | −0.002*** (0.0004) | −0.002* (0.001) | −0.001 (0.001) | −0.002 (0.001) | −0.003*** (0.001) | 0.003 (0.002) | 0.001 (0.001) |
| Distance to nearest refugee camp | −0.008*** (0.001) | −0.005*** (0.0004) | −0.011*** (0.002) | −0.005*** (0.001) | −0.012*** (0.002) | −0.008*** (0.001) | −0.008*** (0.003) | −0.002 (0.001) |
| Deported in 1944 | 0.819*** (0.050) | 1.146*** (0.029) | 0.404*** (0.091) | 0.815*** (0.054) | 0.403*** (0.098) | 0.621*** (0.054) | 0.730*** (0.139) | 0.796*** (0.074) |
| Constant | 0.087 (0.084) | 1.142*** (0.044) | 0.833*** (0.151) | 1.180*** (0.090) | 0.693*** (0.159) | 1.475*** (0.089) | −0.451* (0.232) | 0.909*** (0.123) |
| N | 3,564 | 3,564 | 996 | 988 | 978 | 983 | 477 | 485 |
| Log Likelihood | −6,150.089 | −12,154.400 | −1,637.760 | −2,614.227 | −1,484.823 | −2,848.667 | −854.060 | −1,367.600 |
| AIC | 12,320.180 | 24,328.800 | 3,295.520 | 5,248.453 | 2,989.646 | 5,717.335 | 1,728.120 | 2,755.200 |

*p < .1; **p < .05; ***p < .01

4.6 Sensitivity Analysis: Alternative Definitions of Selective Tactics

In the main text we found that selective counterinsurgency tactics outperformed indiscriminate ones in suppressing levels of insurgent violence. We defined selective violence, as a use of force in which targets are selected on the basis on individual attributes, like partisan affiliation with an insurgent group, and indiscriminate violence as that in which targets are selected based on some collective criterion, like ethnicity or location. While this conceptual distinction may be straightforward, an operational definition is not (i.e. which policing tactics would fall in each corner). In the current section, we replicate the paper’s analyses using several alternative definitions of selective tactics. Specifically, we consider a three-tiered typology, shown in Table O.31. The middle definition (2) is the one used in the main text. The other definitions of selective tactics range from more broad (1) to more narrow (3).

Table 31: **Alternative definitions of selective counterinsurgency tactics.** Under each definition, an act of selective (indiscriminate) violence must involve at least one of the following actors: Joint Task Force, Ministry of Defense (ground forces, airborne, spetsnaz), Ministry of the Interior (VV, SOBR, OMON, GIBDD, UBOP, republican and municipal ministries), FSB, FPS, FSKN, pro-Russian Chechen security forces; and at least one of the actions listed in the “Selective” (“Indiscriminate”) column. Summary statistics shown at the event and district-week levels, with percentages in parentheses.

| Definition | Selective | Indiscriminate |
|------------|---|---|
| 1 | arrest, light arms fire, weapons cache seizure, interdiction, abduction, other bombing Events: 14811 (65%); District-weeks: 4649 (53%) | air strike, artillery shelling, armored assault, cordon-and-search, weapons of mass destruction, KTO, ethnic cleansing Events: 7816 (35%); District-weeks: 4113 (47%) |
| 2* | arrest, light arms fire, weapons cache seizure, interdiction, abduction Events: 11125 (49%); District-weeks: 3259 (37%) | air strike, artillery shelling, armored assault, cordon-and-search, weapons of mass destruction, KTO, ethnic cleansing, other bombing Events: 11502 (51%); District-weeks: 5503 (63%) |
| 3 | arrest, light arms fire, weapons cache seizure, interdiction Events: 10966 (48%); District-weeks: 3185 (36%) | air strike, artillery shelling, armored assault, cordon-and-search, weapons of mass destruction, KTO, ethnic cleansing, other bombing, abduction Events: 11661 (52%); District-weeks: 5577 (64%) |

*: definition used in main text of paper

Table O.32 replicates Table 5 in the main text, using each of these three definitions of selective violence. The Table shows that switching from indiscriminate to selective tactics had a consistently weaker effect on Islamist than nationalist violence, under all four definitions. Note that these are the “naive” bivariate estimates, prior to matching, and without controlling for various confounding factors. Matched results are shown on the following pages.

Table 32: **Violence decrease following selective government violence, alternative definitions.** Numbers represent percent change in insurgent violence (Islamist or nationalist) in the twelve weeks following the use of selective counterinsurgency tactics, relative to indiscriminate tactics. Lower numbers indicate greater counterinsurgency effectiveness. Bootstrapped 95% confidence intervals in parentheses. The four subtables correspond to the four definitions of selective violence introduced in Table O.31

| Definition 1 | Islamist | 95% CI | Nationalist | 95% CI |
|--------------|----------|------------------|-------------|------------------|
| Expanded | -42.39 | (-46.72, -37.85) | -55.46 | (-58.07, -52.7) |
| Intermediate | -44.11 | (-48.1, -39.3) | -55.43 | (-58.09, -52.41) |
| Limited | -37.53 | (-43.54, -31.09) | -54.90 | (-57.34, -51.93) |
| Target-based | -39.98 | (-48.21, -30.56) | -55.08 | (-57.78, -52.14) |
| Definition 3 | | | | |
| Expanded | -43.69 | (-48.09, -38.88) | -55.30 | (-58.27, -52.22) |
| Intermediate | -44.35 | (-48.77, -39.56) | -55.26 | (-58.15, -52.19) |
| Limited | -42.28 | (-48.68, -35.57) | -54.41 | (-57.38, -51.19) |
| Target-based | -37.39 | (-47.78, -26.57) | -54.58 | (-57.45, -51.82) |
| Definition 3 | | | | |
| Expanded | -43.40 | (-48.02, -38.55) | -54.85 | (-57.99, -51.59) |
| Intermediate | -44.06 | (-48.69, -38.85) | -54.81 | (-57.71, -51.74) |
| Limited | -41.77 | (-48.13, -35.4) | -53.99 | (-56.79, -50.98) |
| Target-based | -38.86 | (-48.51, -28.28) | -54.13 | (-57.08, -51.09) |

Table O.33 replicates the matching balance improvement statistics shown in Table O.11. The best-performing matching solution was CEM for all three cases. Tables O.34-O.36 replicate Table O.16 with each of the three definitions. In two out of three cases (Definitions 2 and 3), the suppressive effect of selective tactics extends only to nationalist violence according to the CEM model – consistent with our main results shown in the paper. In the broadest definition, CEM produced a null effect for selective violence against both Islamists and nationalists. This null result suggests that the classification of “other bombings” under the selective violence rubric (i.e. those not caused by air strikes or artillery shelling) makes the selective and indiscriminate categories too similar to evoke a differential response by either type of rebel. The other estimators (Pre-Matching, Mahalanobis, Propensity Scores), however, confirmed that – even under this broad definition – the effect of selective tactics was greater (i.e. more suppressive, larger coefficient size) against nationalists than against Islamists.

Table 33: **Summary statistics of matched samples, alternative definitions of selective violence.** Treated: number of cases of government selective violence. Control: number of cases of government indiscriminate violence. SDM: average standardized difference in means between treated and control groups (all pre-treatment covariates). Improvement: proportion of imbalance reduction from pre-matched data.

| Definition 1 | Islamist | | | | Nationalist | | | |
|------------------|----------|------|------|-----------|-------------|------|------|-----------|
| | T | C | SDM | % improve | T | C | SDM | % improve |
| Pre-Matching | 4649 | 4113 | 0.22 | 0.00 | 4649 | 4113 | 0.24 | 0.00 |
| Mahalanobis | 4581 | 2056 | 0.12 | 44.46 | 4581 | 2047 | 0.13 | 47.25 |
| Propensity Score | 4579 | 1961 | 0.08 | 62.89 | 4579 | 1941 | 0.09 | 62.60 |
| CEM | 931 | 968 | 0.02 | 89.90 | 949 | 947 | 0.01 | 94.27 |
| Definition 2 | | | | | | | | |
| Pre-Matching | 3259 | 5503 | 0.19 | 0.00 | 3259 | 5503 | 0.22 | 0.00 |
| Mahalanobis | 3245 | 1994 | 0.09 | 55.82 | 3245 | 1980 | 0.09 | 58.37 |
| Propensity Score | 3244 | 1918 | 0.05 | 73.93 | 3245 | 1919 | 0.05 | 75.45 |
| CEM | 829 | 953 | 0.03 | 82.37 | 840 | 943 | 0.03 | 87.78 |
| Definition 3 | | | | | | | | |
| Pre-Matching | 3185 | 5577 | 0.19 | 0.00 | 3185 | 5577 | 0.21 | 0.00 |
| Mahalanobis | 3171 | 1993 | 0.08 | 56.21 | 3171 | 1979 | 0.09 | 58.76 |
| Propensity Score | 3171 | 1923 | 0.05 | 75.75 | 3171 | 1897 | 0.05 | 75.30 |
| CEM | 825 | 949 | 0.03 | 82.66 | 833 | 940 | 0.03 | 87.40 |

Table 34: **Poisson regression: effect of counterinsurgent tactics (Definition 1) on insurgent violence, selective (T) and indiscriminate (C).** Matching weights used for (96-101).

| <i>Dependent variable: Islamist (INS_ALL_I2, counts) or nationalist (INS_ALL_N2, counts) violence</i> | | | | | | | | |
|---|-------------------------|--------------------------|--------------------------|------------------------|--------------------------|------------------------|-------------------------|--------------------------|
| | Pre-Matching | | Mahalanobis | | Propensity Score | | CEM | |
| | (94) | (95) | (96) | (97) | (98) | (99) | (100) | (101) |
| | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist |
| Selective tactics (T) | −0.300*** (0.021) | −0.320*** (0.011) | −0.085*** (0.028) | −0.116*** (0.014) | −0.075** (0.029) | −0.076*** (0.015) | −0.043 (0.044) | −0.010 (0.019) |
| Violence (pre-T) | 0.132*** (0.002) | 0.037*** (0.0003) | 0.124*** (0.003) | 0.048*** (0.001) | 0.125*** (0.003) | 0.048*** (0.001) | 0.109*** (0.006) | 0.037*** (0.001) |
| Global suicide terrorism | 0.041*** (0.003) | −0.010*** (0.002) | 0.041*** (0.004) | 0.001 (0.002) | 0.047*** (0.004) | 0.001 (0.002) | 0.081*** (0.010) | 0.012** (0.005) |
| Muslim holiday | −0.015 (0.025) | 0.002 (0.012) | 0.017 (0.032) | −0.054*** (0.017) | 0.031 (0.033) | −0.086*** (0.018) | 0.295*** (0.072) | −0.074** (0.037) |
| Population density | −0.0001*** (0.00001) | −0.00003*** (0.00000) | −0.00005*** (0.00001) | 0.00001** (0.00000) | −0.00004*** (0.00001) | 0.00001** (0.00000) | −0.0001*** (0.00002) | −0.00004*** (0.00001) |
| Distance to border crossing | −0.001*** (0.0003) | −0.0003** (0.0001) | −0.002*** (0.0003) | −0.001*** (0.0002) | −0.002*** (0.0003) | −0.001*** (0.0002) | −0.002*** (0.001) | 0.0004 (0.0003) |
| Distance to military base | −0.003*** (0.001) | −0.004*** (0.0003) | −0.001* (0.001) | −0.001*** (0.0003) | −0.002** (0.001) | −0.003*** (0.0003) | 0.001 (0.001) | −0.0005 (0.001) |
| Distance to nearest refugee camp | −0.011*** (0.001) | −0.008*** (0.0003) | −0.012*** (0.001) | −0.008*** (0.0004) | −0.013*** (0.001) | −0.008*** (0.0004) | −0.015*** (0.002) | −0.004*** (0.001) |
| Deported in 1944 | 0.753*** (0.038) | 0.965*** (0.020) | 0.535*** (0.045) | 0.808*** (0.023) | 0.506*** (0.044) | 0.740*** (0.023) | 0.505*** (0.090) | 0.935*** (0.044) |
| Constant | −0.051 (0.062) | 1.203*** (0.031) | −0.067 (0.074) | 0.992*** (0.038) | −0.028 (0.072) | 1.089*** (0.037) | 0.001 (0.145) | 0.833*** (0.068) |
| N | 8,738 | 8,738 | 6,637 | 6,628 | 6,540 | 6,520 | 1,899 | 1,896 |
| Log Likelihood | −12,883.020 | −31,336.300 | −8,933.282 | −20,226.030 | −8,542.911 | −19,590.310 | −2,970.001 | −6,954.889 |
| AIC | 25,786.040 | 62,692.600 | 17,886.560 | 40,472.060 | 17,105.820 | 39,200.620 | 5,960.001 | 13,929.780 |

*p < .1; **p < .05; ***p < .01

Table 35: **Poisson regression: effect of counterinsurgent tactics (Definition 2) on insurgent violence, selective (T) and indiscriminate (C).** Matching weights used for (104-109).

| <i>Dependent variable: Islamist (INS_ALL_I2, counts) or nationalist (INS_ALL_N2, counts) violence</i> | | | | | | | | |
|---|-------------------------|--------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|
| | Pre-Matching | | Mahalanobis | | Propensity Score | | CEM | |
| | (102) | (103) | (104) | (105) | (106) | (107) | (108) | (109) |
| | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist |
| Selective tactics (T) | −0.324*** (0.024) | −0.354*** (0.012) | −0.077** (0.032) | −0.118*** (0.016) | −0.023 (0.033) | −0.077*** (0.017) | −0.032 (0.049) | −0.052** (0.022) |
| Violence (pre-T) | 0.133*** (0.002) | 0.037*** (0.0003) | 0.118*** (0.004) | 0.051*** (0.001) | 0.125*** (0.004) | 0.049*** (0.001) | 0.095*** (0.006) | 0.035*** (0.001) |
| Global suicide terrorism | 0.041*** (0.003) | −0.009*** (0.002) | 0.047*** (0.005) | 0.007*** (0.003) | 0.041*** (0.005) | 0.008*** (0.003) | 0.084*** (0.010) | 0.002 (0.005) |
| Muslim holiday | −0.015 (0.025) | 0.003 (0.012) | 0.074** (0.037) | 0.013 (0.019) | 0.032 (0.039) | −0.073*** (0.021) | 0.487*** (0.072) | 0.003 (0.040) |
| Population density | −0.0001*** (0.00001) | −0.00003*** (0.00000) | −0.00001 (0.00001) | 0.00004*** (0.00001) | −0.00003** (0.00001) | 0.00003*** (0.00001) | −0.00005** (0.00002) | −0.00001 (0.00001) |
| Distance to border crossing | −0.001*** (0.0003) | −0.0003** (0.0001) | −0.002*** (0.0004) | −0.002*** (0.0002) | −0.002*** (0.0004) | −0.002*** (0.0002) | −0.003*** (0.001) | −0.001** (0.0003) |
| Distance to military base | −0.003*** (0.001) | −0.004*** (0.0003) | −0.002** (0.001) | −0.001* (0.0004) | −0.002*** (0.001) | −0.002*** (0.0004) | 0.0003 (0.001) | 0.0002 (0.001) |
| Distance to nearest refugee camp | −0.011*** (0.001) | −0.007*** (0.0003) | −0.012*** (0.001) | −0.007*** (0.0004) | −0.012*** (0.001) | −0.008*** (0.0004) | −0.014*** (0.002) | −0.001** (0.001) |
| Deported in 1944 | 0.771*** (0.038) | 0.984*** (0.020) | 0.458*** (0.051) | 0.769*** (0.027) | 0.418*** (0.050) | 0.723*** (0.026) | 0.377*** (0.092) | 0.881*** (0.045) |
| Constant | −0.116* (0.062) | 1.134*** (0.031) | −0.119 (0.084) | 0.878*** (0.044) | −0.108 (0.082) | 0.969*** (0.043) | 0.036 (0.150) | 0.790*** (0.070) |
| N | 8,738 | 8,738 | 5,239 | 5,225 | 5,162 | 5,164 | 1,782 | 1,783 |
| Log Likelihood | −12,886.550 | −31,343.210 | −6,714.023 | −14,876.370 | −6,451.932 | −14,451.450 | −2,518.268 | −5,880.758 |
| AIC | 25,793.110 | 62,706.420 | 13,448.050 | 29,772.750 | 12,923.860 | 28,922.900 | 5,056.536 | 11,781.520 |

*p < .1; **p < .05; ***p < .01

Table 36: **Poisson regression: effect of counterinsurgent tactics (Definition 3) on insurgent violence, selective (T) and indiscriminate (C).** Matching weights used for (112-117).

| <i>Dependent variable: Islamist (INS_ALL_I2, counts) or nationalist (INS_ALL_N2, counts) violence</i> | | | | | | | | |
|---|-------------------------|--------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|
| | Pre-Matching | | Mahalanobis | | Propensity Score | | CEM | |
| | (110) | (111) | (112) | (113) | (114) | (115) | (116) | (117) |
| | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist | Islamist | Nationalist |
| Selective tactics (T) | −0.315*** (0.024) | −0.348*** (0.012) | −0.102*** (0.032) | −0.122*** (0.016) | −0.023 (0.033) | −0.037** (0.017) | −0.035 (0.048) | −0.056** (0.022) |
| Violence (pre-T) | 0.133*** (0.002) | 0.037*** (0.0003) | 0.120*** (0.004) | 0.051*** (0.001) | 0.123*** (0.004) | 0.049*** (0.001) | 0.101*** (0.006) | 0.034*** (0.001) |
| Global suicide terrorism | 0.041*** (0.003) | −0.009*** (0.002) | 0.048*** (0.005) | 0.008*** (0.003) | 0.043*** (0.005) | 0.004 (0.003) | 0.086*** (0.010) | 0.002 (0.005) |
| Muslim holiday | −0.014 (0.025) | 0.003 (0.012) | 0.053 (0.038) | −0.002 (0.019) | 0.022 (0.039) | −0.064*** (0.021) | 0.477*** (0.072) | 0.016 (0.040) |
| Population density | −0.0001*** (0.00001) | −0.00003*** (0.00000) | −0.00001 (0.00001) | 0.00004*** (0.00001) | −0.00003** (0.00001) | 0.00003*** (0.00001) | −0.0001*** (0.00002) | −0.00001 (0.00001) |
| Distance to border crossing | −0.001*** (0.0003) | −0.0003** (0.0001) | −0.002*** (0.0004) | −0.002*** (0.0002) | −0.002*** (0.0004) | −0.001*** (0.0002) | −0.004*** (0.001) | −0.0005* (0.0003) |
| Distance to military base | −0.003*** (0.001) | −0.004*** (0.0003) | −0.002** (0.001) | −0.001 (0.0004) | −0.002*** (0.001) | −0.002*** (0.0004) | −0.001 (0.001) | 0.00004 (0.001) |
| Distance to nearest refugee camp | −0.011*** (0.001) | −0.007*** (0.0003) | −0.012*** (0.001) | −0.007*** (0.0004) | −0.012*** (0.001) | −0.008*** (0.0004) | −0.014*** (0.002) | −0.001 (0.001) |
| Deported in 1944 | 0.779*** (0.038) | 0.988*** (0.020) | 0.425*** (0.051) | 0.762*** (0.027) | 0.385*** (0.050) | 0.710*** (0.027) | 0.226** (0.089) | 0.907*** (0.045) |
| Constant | −0.128** (0.062) | 1.125*** (0.031) | −0.045 (0.084) | 0.890*** (0.044) | −0.105 (0.081) | 0.935*** (0.043) | 0.225 (0.144) | 0.739*** (0.070) |
| N | 8,738 | 8,738 | 5,164 | 5,150 | 5,094 | 5,068 | 1,774 | 1,773 |
| Log Likelihood | −12,892.980 | −31,363.710 | −6,645.168 | −14,708.480 | −6,407.425 | −14,293.980 | −2,530.566 | −5,852.754 |
| AIC | 25,805.960 | 62,747.420 | 13,310.330 | 29,436.960 | 12,834.850 | 28,607.960 | 5,081.133 | 11,725.510 |

*p < .1; **p < .05; ***p < .01

References

- Aslan Maskhadov: 'Voyna zakonchitsa toga, kogda vydut the, kto prishel s voynoy' [Aslan Maskhadov: 'The war will end when those who brought the war will leave']*. 2003. *IA Chechenpress*.
- Basaev, Shamil. 2005. "Shamil Basaev o sobytiyah v Beslane... [Shamil Basaev on the events in Beslan...]." *Kavkaz Center*.
- Batuev, Valeriy. 1999. "Chechenskiy oreshkek [Chechen nut]." *Moskovskiy Komsomolets*.
- Davenport, Christian and Allen Stam. 2006. "Rashomon goes to Rwanda: Alternative Accounts of Political Violence and Their Implications for Policy and Analysis."
- Davenport, Christian and Patrick Ball. 2002. "Views to a Kill: Exploring the Implications of Source Selection in the Case of Guatemalan State Terror, 1977-1995." *Journal of Conflict Resolution* 46:427-450.
- Feinerer, Ingo. 2008. "An introduction to text mining in R." *R News* 8(2).
- Feinerer, Ingo, K. Hornik and D. Meyer. 2008. "Text mining infrastructure in R." *Journal of Statistical Software* 25(5).
- Gerner, Deborah J., Philip A. Schrodt, Omur Yilmaz and Rajaa Abu-Jabr. 2002. "The Creation of CAMEO (Conflict And Mediation Event Observations): An Event Data Framework For A Post Cold War World." Presented at the 2002 Annual Meeting of the American Political Science Association, 29 August - 1 September.
- Grimmer, Justin and Gary King. 2009. "Quantitative Discovery from Qualitative Information: A General-Purpose Document Clustering Methodology."
- Han, Jiawei and Micheline Kamber. 2001. *Data Mining: Concepts and Techniques*. Morgan Kaufmann Publishers.
- Kim, W., A.R. Aronson and W.J. Wilbur. 2001. "Automatic MeSH term assignment and quality assessment." *Proceedings of the AMIA Symposium* (319-23).
- King, Gary and Will Lowe. 2003. "An Automated Information Extraction Tool for International Conflict Data with Performance as Good as Human Coders: A Rare Events Evaluation Design." *International Organization* 57:617-642.
- Kramer, Mark. 2004. "The Perils of Counterinsurgency: Russia's War in Chechnya." *International Security* 29(3).
- Kramer, Mark. 2005. "Guerrilla Warfare, Counterinsurgency and Terrorism in the North Caucasus: The Military Dimension of the Russian-Chechen Conflict." *Europe-Asia Studies* 57(2).
- Kuchins, Andrew C., Sergey Markedonov and Matthew Malarkey. 2011. *The North Caucasus: Russia's Volatile Frontier*. Washington, DC: Center for Strategic and International Studies.
- LaFree, Gary and Laura Dugan. 2007. "Introducing the Global Terrorism Database." *Terrorism and Political Violence* 19:181-204.
- Lyall, Jason. 2009. "Does Indiscriminate Violence Incite Insurgent Attacks? Evidence from Chechnya." *Journal of Conflict Resolution* 53(2).
- Lyall, Jason. 2010. "Are Coethnics More Effective Counterinsurgents? Evidence from the Second Chechen War." *American Political Science Review*.
- Malashenko, Aleksey and Dmitriy Trenin. 2002. *Vremya Yuga: Rossiya v Chechnye, Chechnya v Rossii [Time of the South: Russia in Chechnya, Chechnya in Russia]*. Moscow: Gendalf.
- Memorial. 2009. "Hronika nasiliya [Chronicle of Violence]." Memorial Group, Moscow.
- Mikhaylov, Slava, Michael Laver and Kenneth Benoit. 2008. "Coder Reliability and Misclassification in Comparative Manifesto Project Codings." Paper presented at the Midwest Political Science Association, Chicago.
- O'Loughlin, John, Edward Holland and Frank Witmer. 2011. "The Changing Geography of Violence in the North Caucasus of Russia, 1999-2011: Regional Trends and Local Dynamics in Dagestan, Ingushetia and Kabardino-Balkaria." *Eurasian Geography and Economics* 52(5).
- O'Loughlin, John and Frank Witmer. 2011. "The Localized Geographies of Violence in the North Caucasus of Russia, 1999-2007." *Annals, Association of American Geographers* 101(1).

- Raleigh, Clionadh and Havard Hegre. 2009. "Population size, concentration, and civil war. A geographically disaggregated analysis." *Political Geography* 28.
- Reeves, Andrew M., Stephen M. Shellman and Brandon M. Stewart. 2006. Media Generated Data: The Effects of Source Bias on Event Data Analysis. In *Presented at the International Studies Association annual convention*.
- Sagramoso, Dotmilla. 2007. "Violence and conflict in the Russian North Caucasus." *International Affairs* 83(4):681–705.
- Schrodt, Philip A. 2001. Automated Coding of International Event Data Using Sparse Parsing Techniques. In *Presented at the International Studies Association*. Chicago: .
- Schrodt, Philip A. and Deborah J. Gerner. 1994. "Validity assessment of a machine-coded event data set for the Middle East, 1982-1992." *American Journal of Political Science* 38:825–854.
- Shamil Basaev: 'Nam nuzhen shariat, a ne prava cheloveka' [Shamil Basaev: 'We need Sharia, not human rights']. 2003. *Komsomol'skaya Pravda* .
- Shellman, Stephen M. 2008. "Coding Disaggregated Intrastate Conflict: Machine Processing the Behavior of Substate Actors over Time and Space." *Political Analysis* 16(4).
- Souleimanov, Emil. 2007. *Endless war: the Russian-Chechen conflict in perspective*. Frankfurt am Main: Peter Lang.
- Umarov, Doku. 2007. "Official Release of the Statement by Amir Dokka Umarov about the Declaration of the Caucasus Emirate." *Press Office of the Amir of the Caucasus Emirate* .
- Vendina, Olga I., Vitaliy S. Belozerov and Andrew Gustafson. 2007. "The Wars in Chechnya and Their Effects on Neighboring Regions." *Eurasian Geography and Economics* 48(2).
- Weber, Robert Philip. 1990. *Basic Content Analysis*. 2nd ed. Newbury Park, CA: Sage Publications.
- Zhukov, Yuri M. 2012. "Roads and the diffusion of insurgent violence: The logistics of conflict in Russia's North Caucasus." *Political Geography* 31:144–156.