

Article



Conditional cross-border effects of terrorism in China

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#### **Abstract**

This paper explores whether the cross-border effect of ethnic violence is contingent on internal factors, such as domestic security measures, distribution of religious sites, availability of communication tools, and proximity to turbulent neighboring countries. Using county-level data from Xinjiang (1995–2012), our analyses show no support for direct violence-enhancing effects of outside terrorism in Xinjiang. When terrorist attacks increase globally or in neighboring countries, overall violence in Xinjiang diminishes. We attribute this to increased security measures by the government. However, the reduction in violence is highly conditional on local factors. We find that historical religiosity and geographic proximity to the border reduce the subsident effects of external terrorism.

### **Keywords:**

Ethnic violence, terrorism, diffusion effect, religion, Xinjiang, China

Ethnic boundaries often do not match state boundaries. Many ethnic groups reside in one country or across multiple states. Hence, ethnic violence in many cases is not confined to within a country's border. Moreover, religious beliefs—which often motivate ethnic violence—are also not limited by state boundaries, causing religion-related terrorist attacks in one country to have resonant effects in another country. Numerous studies consider the cross-border effects of outside terrorism on ethnic violence and civil conflict (Regan, 2002b; Salehyan et al., 2011; Salehyan et al., 2014; Zhukov, 2017). While external violence may shape the process of internal violence and make radical groups less likely to rely solely on local support, different types of external violence may have divergent effects on the chances of internal violence (Sawyer et al., 2017). More importantly,

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the influence of external violence is conditional on the local context, which can convert foreign events or resources into internal motivations or the capacity to mobilize collective action.

Our study provides empirical evidence supporting conditional arguments on the violence diffusion discourse, using the case of Xinjiang, China. The Xinjiang Uyghur Autonomous Region in China has experienced a large number of violent incidents involving ethnic and religious cleavages, particularly since the 1990s. These ethnic conflicts have made Xinjiang the most contentious region in China, one where the Chinese government has invested extensive resources to strengthen regional security. Despite the efforts of the Chinese central and local governments, however, tensions among ethnic groups have intensified in the region. Numerous qualitative studies (Gladney, 2003; Hann 2011; Mackerras, 2001; Reed and Raschke, 2010) and a few recent statistical analyses (Cao et al., 2018a; Hong and Yang, 2020) delve into the domestic factors that contribute to or mitigate this ethnic violence, including historical religious institutions, natural resource development, and regional economic conditions.

This study, instead, shifts the focus to external factors and investigates whether the external violence interacts with the internal conditions looked at in previous studies. With this shift, this study engages with the Chinese government's claims and policy stance regarding the violent incidents in Xinjiang. For the last two decades, the Chinese government and media have openly attributed Xinjiang's ethnic violence to increasing influences from foreign sources.<sup>2</sup> The government has also indicated that ethnically motivated cross-border organizations are under the influence of global terrorism, separatist movements and Islamic extremism.<sup>3</sup>

Xinjiang is surrounded by five Islamic countries. The Global Terrorism Database (GTD) records 9,888 terrorism events in these five neighboring Islamic countries between 1998 and 2012, accounting for 21.64% of global terrorism during that period. Ethnic minority groups in Xinjiang share cultural, religious and ethnic backgrounds with people in these countries, often more than they do with Han Chinese, who make up the majority of the Chinese population. Xinjiang's geographic location and unique cultural and religious context provide an ideal case to examine how domestic factors interact with external violence in shaping the onset of ethnic violence in a strong authoritarian state prioritizing security, like China. To the best of our knowledge, this study is the first to systematically analyze the effects of external violence on Xinjiang's ethnic conflicts.

To examine the effects of external terrorism and the mechanisms through which it affects internal ethnic violence, we collected detailed ethnic violence data and socioeconomic data from 85 counties in Xinjiang over 15 years from 1995 to 2012.<sup>4</sup> Unlike other studies showing that Islamist attacks are positively correlated with global suicide terrorism (Horowitz, 2015; Toft and Zhukov, 2015), our analyses show no direct diffusion effect: if any, we find that violence in Xinjiang is negatively associated with global terrorism. That is, when terrorist attacks increase in other countries, overall violence in Xinjiang decreases. We interpret this as evidence of the strong security capacity of the Chinese government, which typically introduces new rounds of domestic counter-terrorism measures when international circumstances are unstable.

Nevertheless, we find critical conditional factors that indirectly contribute to cross-border diffusion effects: first, the subsident effects of external Islamic terrorism disappear in counties with high mosque density. This we interpret as indicating that places with strong religious culture and tradition may be more vulnerable to religiously motivated radical movements from outside the border, despite strong government measures. For instance, since extreme Islamists are sensitive to global patterns of Jihad (Hegghammer, 2011; Moghadam; 2009; Toft and Zhukov, 2015), local religious extremists may respond to external terrorism with violence to signal solidarity and commitment to the faith. Our findings also support a geographic effect of terrorist attacks: in areas close to the

international borders with Pakistan and Afghanistan, ethnic violence does not decrease when terrorist attacks increase in these countries or globally. This finding suggests that while the security measures of the Chinese authority have been strong enough to suppress the overall ethnic violence level in Xinjiang, there are local variations where the countries closer to the Afghan or Pakistani border or those with greater mosque density tend not to experience a decline or may even see an increase in ethnic violence. In addition, contrary to popular belief, we find no significant evidence to support the claim that communications technology facilitates the diffusion of cross-border violence. The dissemination of modern communications technology such as cell phones, the internet, and home phones has no direct or indirect effect on the occurrence of ethnic violence in Xinjiang.

Our study contributes to the ethnic conflict literature in several ways. First, we provide subnational evidence that explains how domestic local conditions interact with cross-state-border terrorism in shaping the probability of ethnic violence. Not all countries experience a diffusion of disturbance or violence when terrorist attacks prevail globally or in neighboring states. In particular, for a strong authoritarian state such as China, where the government maintains massive security power relative to rebel groups, external turbulence may alert the government to increase its overall security and intelligence efforts. Scholars have recently debated the effectiveness of state measures in Xinjinag. Zenz and Leibold (2019) and Shichor (2019) note that government security measures have increased over time in different units.

However, Tschantret (2018) argues that these increased measures have been ineffective in quelling terrorism in Xinjiang. Our findings reveal that despite such efforts, violence reduction has been conditional on the local context, indicating that local trends may significantly differ from the overall regional or national circumstances.

Secondly, this study is among the first to investigate the violence in Xinjiang using rigorous statistical methods. In line with recent efforts to complement previous in-depth qualitative studies on Xinjiang with systematic analyses (Cao et al., 2018a; Hong and Yang, 2020), this study provides statistical evidence on Xinjiang's violence using systematic local-level data. By doing so, our study sheds new light on a case less well known in the literature on ethnic conflict. Finally, our findings imply that local conditions that enhance the residents' responsiveness to external disturbance can be difficult to address through government policy, no matter how capable the state is, as they might be embedded in geography or deeply rooted in culture.

## External conflict, local conditions and the diffusion of violence

A growing body of literature shows that political influence or resources from outside a state border may affect the onset, scale and length of civil conflict in a country. The availability of outside resources exacerbates internal violence, as it leads local combatants to become less dependent on the local population and resources (Zhukov, 2017). Thus, external support for either the government or the rebel side tends to prolong civil conflicts. Sawyeret al. (2017) theorize and find evidence suggesting that rebels are less likely to agree to end the conflict, particularly when highly fungible external support such as cash and guns is available from external sources. Furthermore, rebels can find alliance partners beyond the border or the immediate conflict zone and can exchange information, human capital and even weapons (Toft and Zhukov, 2015). In addition, external state interventions, which most studies assume help to terminate a conflict either by strengthening one side or by facilitating negotiations, on average tend to extend conflict duration (Cunningham, 2010; Regan, 2002b). External influence and connections may also be more influential when the anti-government groups are active in a strong state, where a government with extensive public security capacity maintains tight control over society. In such circumstances, local support for rebels is limited,

and external resources and connections may create a crucial difference in the development of internal conflict.

Although numerous studies have investigated the role of external factors in civil conflict and ethnic violence, it is still largely unknown how the domestic, local context interacts with external factors to deter or foster violence. Relevant studies, if any, have largely focused on the traits of rebel groups (Salehyan, 2009; Salehyan et al., 2011) or domestic institutions that may mediate their influence (Danneman and Ritter, 2014; Maves and Braithwaite, 2013). Nonetheless, rebel groups are not independent of the conditions in localities where they reside, such as the history, religion, culture and geography of the area. Moreover, it is also true that, in a highly controlled state like China, characterizing rebel groups can be difficult, as they face extreme barriers to organization, interaction with the outside and even existence. Therefore, in this paper, instead of studying the group-level features, we focus on local conditions as internal factors shaping the influence of external factors.

More specifically, we analyze three potential mechanisms through which external violence may affect internal ethnic violence via interaction with the domestic context. The first and most straightforward channel is *geographic spillover*. Scholars have noted a pattern of geographic clustering in global civil conflicts within and across state borders (Buhaug and Gleditsch, 2008; Toft 2002, 2003). Geographic proximity facilitates the direct flow of personnel, skills and resources (Diehl, 1991; Toft 2003; Weidmann, 2015) and promotes the cross-border diffusion of violence as group coordination for collective action is less costly (Weidmann, 2015). Geographic proximity to co-ethnic or co-religious radical groups across a state border explains why relatively weak rebels are often undeterred by much stronger states (Salehyan, 2008, 2009; Weidmann, 2009), particularly when the conflict reflects a separatist movement (Buhaug and Gleditsch, 2008). As a result, Buhaug and Rød (2006) and Buhaug et al. (2009) draw the empirical conclusion that areas close to international borders experience more frequent and longer civil conflicts.

The second mechanism is a religious channel whereby religiously driven groups or individuals perceive external violence as a religious signal and thus react with greater internal violence. Scholars find that religion constructs group identities (Seul, 1999) and improves group cohesion by strengthening in-group and out-group distinctions (Montalvo and Reynal-Querol, 2005; Stewart, 2012). Regarding conflicts, numerous studies have shown that religion is linked with various types of social instability and violence, including protests (Hoffman and Jamal, 2014), terrorism (Berman and Laitin, 2008, Iannaccone and Berman, 2006; Pratt, 2010), ethnic conflict (Gurses, 2015) and civil war (Toft, 2007). In recent years, religiously motivated radical groups have become increasingly involved in civil conflicts globally, and observers note their role in facilitating the transnational spread of terrorism (Thomas, 2010). Scholars also point out that religious motivation enhances the mobilization capacity of radical groups (Basedau et al., 2016; Fearon and Laitin, 2003; Reynal-Querol, 2002), which often aim to legitimize or justify the use of violence (Aspinall, 2007; Bloom et al., 2015). In particular, radical transnational Islamic groups have successfully appealed to unemployed lower-class youths in Europe and the USA to persuade them to join transnational armed forces such as Al Qaeda (Stern, 2003). Many Islamic rebel groups active in China are known to have connections to radical groups across the border, particularly in Pakistan and Afghanistan (Reed and Raschke, 2010), and to share bases with other foreign Islamic insurgents as well.<sup>5</sup> Both scholarly research and anecdotal evidence suggest that external terrorist incidents affect internal ethnic violence through local religious culture and networks.

The last mechanism we consider is the recent advancement in *communication technology*. Recent progress in mobile technology has allowed increased and easier access to and transmission of information, potentially transforming the diffusion of violence across geographic barriers (Cairncross, 2001). However, the ways in which information and communication technology

change political conflict are not straightforward, as they may potentially help both rebels and governments by mobilizing the masses and allowing monitoring of anti-government activities (Dafoe and Lyall, 2015; Shapiro and Siegel, 2015). On the one hand, communication technology may fuel the diffusion of violence by helping potential participants in violent events resolve the collective action problem (Pierskalla and Hollenbach, 2013). By improving in-group information exchange and coordination, communication technology may particularly aid organized collective actions by anti-government activists or insurgent groups (Little, 2016; Weinstein, 2007). Specifically, communications technology provides the means for information exchange across national borders, facilitating tactical development among international rebels (Bakke, 2013; Weidmann, 2015). On the other hand, technology can also work for the government, i.e. the counterinsurgent side, impeding the diffusion of violence by enhancing monitoring and intelligence operations (Rød and Weidmann, 2015; Shapiro and Weidmann, 2015). In the Chinese context, scholars find that the government has applied highly developed information techniques to the nationwide internet to censor messages related to collective action against the government (Kinget al., 2013) and to spread government propaganda (Huang, 2015).

# Local conditions and ethnic violence in Xinjiang

Xinjiang is bordered by volatile countries, particularly those vulnerable to recent waves of terrorism, such as Afghanistan and Pakistan (Figure 1). Xinjiang is also adjacent to other majority Muslim countries including Tajikistan, Kazakhstan and Kyrgyzstan, resulting in a shared identity with Xinjiang's own majority Muslim population. Xinjiang's unique location means that the region is potentially exposed to greater communication or penetration from religious radicals outside the country (Greitens et al., 2020; Hastings, 2011).

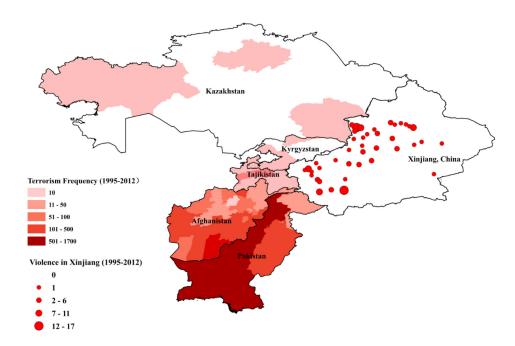


Figure 1. Terrorism in neighboring countries and ethnic violence in Xinjiang (1995–2012).

Many of the most widely known deadly incidents in the region have occurred in a township near the international border, and scholars have suggested the potential engagement of bordering countries and the involvement of religious sites. For instance, the Baren Incident in 1990, known as the starting point for rising ethnic violence in Xinjiang over the following decades, began in a mosque with a protest against government policies that escalated into a clash that left between seven and 15 casualties (Bovingdon, 2004: 8). Akto County, where Baren is located, is adjacent to Tajikistan, which was on its way to independence from the Soviet Union. Approximately two months before the Baren incident, a major riot occurred in the country's capital city, Dushanbe, leaving dozens of people dead and hundreds injured. Becquelin (2000: 69) stated that "the conjunction of organizational sophistication, radical Muslim ideology and the weaponry used by the insurgents was far beyond the expectations of the security apparatus, suggesting foreign support from across the borders". As an outcome of the incident, the county government closed 50 "superfluous" mosques and halted the construction of 100 new mosques (Dillon, 2004: 73). Another case near the end of our research period is the Yecheng Incident in 2012. Yecheng (also called Kargilik) is a township next to the Pakistani border where about 20 people were killed in a violent clash. The authorities quickly pointed to religious extremism as the motivation for the attack. At this time, Pakistan, which borders the county where Yecheng is located, was facing an increasing number of Islamist terrorist attacks. These observations of the transnational coincidence of violent events naturally lead one to wonder about potential cross-border spillover effects.

*Hypothesis 1:* Global terrorist violence or terrorist attacks in neighboring countries have a positive impact on ethnic violence in Xinjiang.

Some observers have shown that several active radical groups in Xinjiang maintain a robust transnational presence. For example, the East Turkistan Islamic Movement (ETIM) is a fundamentalist Islamic organization based in Xinjiang (Potter, 2013). It is known for its connection to Al Qaeda and other extreme radical Islamic groups such as the Taliban, and it is listed as a terrorist group by China, the USA and the United Nations (Millward, 2004: 22–24). The ETIM is reportedly active in neighboring Islamic countries including Afghanistan, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Chechnya, having established operational bases outside of China and developed transnational ties that include alliances with other terrorist groups (Reed and Raschke, 2010). Some evidence indicates that radical separatist groups in Xinjiang have received external material support from global Jihadist groups, especially from Al Qaeda (Wayne, 2007: 44–47). Recently, several hundred Chinese citizens have reportedly joined the Islamic State and engaged in military actions in the Middle East (Greitens et al., 2020). As white papers and domestic media coverage show, the Chinese government and media have consistently pointed to these foreign influences and religious extremism as the main sources of domestic ethnic contentions in Xinjiang.

How can these organizations operate in and outside of Xinjiang despite the Chinese government's extensive security measures? The unique terrain and vast area of Xinjiang, along with its low population density and and scattered settlements, make it physically impossible to keep the whole region under tight security control. Owing to the length of the international border (nearly 5600 km) and the rugged terrain, the Chinese government's efforts to reduce the influence of outside radical organizations have frequently fallen short. For instance, evidence indicates that radical separatists have received weapons from Afghanistan through the mountainous Pamir–Badakhshan border area (Raczka, 1998). A complementary factor to the geography is the large

diaspora of Uyghurs spread throughout neighboring countries such as Kazakhstan, Kyrgyzstan and Uzbekistan, the Middle East including Saudi Arabia and Jordan, and Turkey (Greitens et al., 2020).

*Hypothesis* 2-1: Counties closer to turbulent neighboring countries are more influenced by terrorist violence beyond the border.

Xinjiang's historical and cultural devotion to Islam is another unique feature of the region relative to the rest of the country, which we examine as another key factor that mediates the impact of cross-border violence. While only 1.6% of the Chinese population resides in Xinjiang, the region contains about 63% of all mosques in China. Conflict scholars have debated whether religious institutions such as mosques are linked to the occurrence of civil conflicts. Mosques may provide spatial platforms for public gatherings and may facilitate social networking, which can enhance information exchange and mobilize resources and combatants (Hoffman and Jamal, 2014; Kurzman, 2005). Bovingdon (2013: 124) mentions that some religious extremists in Xinjiang use mosques to promote Jihad and recruit members to the "Eastern Turkistan Islamic Party". Hong and Yang (2020) show that the presence of a large number of mosques in an area reflects a fundamental cultural and religious cleavage between that area and Chinese mainstream society. In contrast, a strand of studies suggests the stabilizing effects of religious institutions. Tsai (2007) highlights religious institutions in China as one of the main providers of local public goods, particularly in rural areas. Cao et al. (2018a) find that Xinjiang's mosques have pacifying effects as they provide necessary public goods to local ethnic minority communities and disseminate information regarding government policies.

What, then, explains the recent rise in ethnic tension and violence in Xinjiang? One possibility is a change in the practice of Islam itself. The spread of extremist and fundamentalist Islamic movements such as Wahhabism has facilitated the occurrence of terrorist violence around the globe and specifically in Xinjiang in the post-Cold War era. Rejecting not only other religions but also other Islamic sects or faiths, Wahhabism has been cited as a religious cause of large-scale violence in many countries in the Middle East and in other areas including Chechnya, Afghanistan and India (Shukla, 2014). The most radical and violent contemporary Islamic groups, such as the Islamic State of Iraq and Syria and Boko Haram, also share many religious beliefs consistent with Wahhabism. Wahhabism originally arrived in Xinjiang in the 1980s, but in recent years it has spread throughout the entire region and facilitated underground Islamic schools and Internet networks (Zhang, 2013). It remains popular among some in the Xinjiang population "who had previously been alienated by the party-approved version of Islam", which is particularly concerning for the Chinese government (Bovingdon, 2004: 36).

Given the changing trends in Islam, the role of religion and religious sites in Xinjiang may have changed or varied over time. On the one hand, mosques can facilitate peace by providing channels to express the grievances of ethnic minorities to authorities and distribute information and even public goods and services from the government. On the other hand, when the external environment becomes violent, the mosque might provide religious or cultural focal points where local minorities can get information about external events or express emotional or psychological empathy with foreign events.

*Hypothesis* 2-2: Counties with higher density of religious sites are more affected by terrorist attacks overseas.

Finally, the new development and dissemination of communication technology should be considered as another reason for the recent increase in ethnic confrontations in Xinjiang. Communication technology has advanced exponentially in China alongside its rapid economic development. Along with the nationwide spread of communication interfaces and technologies, the Chinese government has applied comprehensive and multidimensional regulation, surveillance and censorship systems throughout all communication media (Liang and Lu, 2010). Communication media have also been widely adopted in Xinjiang (Rippa, 2019) as Figure A.1 illustrates. Government control over such media is perhaps strictest in Xinjiang. For instance, the day after the 5 July Urumqi riot in 2009, the government shut down the internet across the whole region, accusing separatist groups using social networks such as Facebook and Twitter of mobilizing rioters (Jia, 2009). Facebook and Twitter were completely blocked in China after the riot (Wauters, 2009). International telephone calls and text message services were also suspended in Xinjiang immediately after the riot (Jacobs, 2010). Internet service in Xinjiang was restored after 10 months of suspension (Wong, 2010). The spread of radical material via online media and consequentially the mobilization of radical religious rebels is a particular concern for the Chinese government (Zhao, 2016). Officials sentenced dozens of people for spreading radical videos that promoted violence in Xinjiang (Wang and Su, 2014).

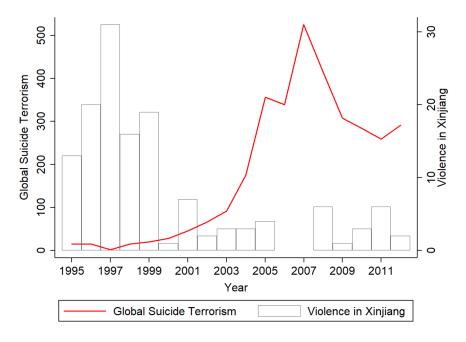
*Hypothesis* 2-3: Counties with higher share of internet users and mobile phone users are more affected by terrorist attacks overseas.

## **Empirical** methods

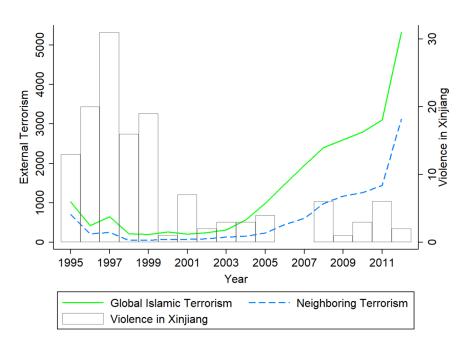
#### Data and variables

Our key dependent variable is the onset of ethnic violence in Xinjiang. No official data are available on violence in Xinjiang, so we collect data from various relevant sources. First, we define ethnic violence as incidents of armed riot, bombing, assault, murder or assassination conducted by one or multiple ethnic minority residents that target government officials, official buildings or members of other ethnic groups. We also collected relevant data from sources including academic research by Bovingdon (2013) and Hierman (2007), newspaper articles and postings by activists. Bovingdon (2013) provides detailed and comprehensive information on violent events in Xinjiang from 1949 to 2005. Data on violent events between 2006 and 2012 are mainly collected from authoritative public media reports in English and Chinese and postings by related organizations using the same criteria. The constant of the c

Our main independent variables are violent events occurring outside of Xinjiang. Among the various types of external violence, it is difficult to classify these by type without knowing the exact mechanism through which violence affects other regions. We use three types of global terrorist events to identify the influence of external violence. First, we employ *global suicide terrorism* as the most impactful type of terrorist attack. In recent years, numerous rebel groups have used extreme methods like suicide attacks to signal their ability and determination to achieve their political goals (Acosta, 2016; Atran, 2003; Hoffman and McCormick, 2004; Pape 2003). Suicide terrorism is particularly visible in the news media and thus highly motivational to other rebel group members regardless of national boundaries. Furthermore, suicide terrorism has been effective in motivating Islamist violence across borders (Toft and Zhukov, 2015). We collect suicide attack



(a) Global Suicide Terrorism and Violence



(b) Islamic Terrorism, Neighboring Terrorism and Violence

Figure 2. External terrorism and violence in Xinjiang.

data from the Chicago Project on Security and Terrorism. Figure 2(a) illustrates the trend of global suicide terrorism and violence in Xinjiang between 1995 and 2012.

Second, to measure *global Islamic terrorism*, we use the total number of terrorist attacks in 25 Islamic countries around the world. Islamic countries are identified as states that adopt Islam as their ideological foundation or endorse Islam as the state religion. The terrorist event data are drawn from the Global Terrorism Database (GTD), one of the largest and most extensive terrorism databases available (LaFree and Dugan, 2007). In addition, we alternatively limit Islamic terrorist attacks to those that took place in Xinjiang's five *neighboring Islamic countries*, identifying the total number of terrorist events in Tajikistan, Pakistan, Kazakhstan, Kyrgyzstan and Afghanistan from the same data source. The GTD records 9888 terrorist events in Xinjiang's five neighboring Islamic countries between 1998 and 2012; approximately 99% of these occurred in Pakistan and Afghanistan, and more than 85% are categorized as assassinations, armed assaults or bombings. Figure 2(b) shows the trends in Islamic terrorism, terrorism events in neighboring Islamic countries and violence in Xinjiang.

We also focus on local conditions as another set of independent variables. We employ mosque density, i.e. the number of mosques per unit of area in each county, to measure local religious culture and institutions. Our measure of mosque density is the number of mosques in the 1990s normalized by area. This measure is taken before our dependent variable, which begins in 1995, minimizing potential endogeneity where violent events could change the geographic distribution of mosques.

We incorporate a variety of geographic variables to address each county's unique geographic features. We use the distance to the border with turbulent neighboring countries as a proxy for geographic proximity to external violence. We calculate the shortest distance to the national borders with Pakistan and Afghanistan from each county's center point. Relatedly, we also incorporate road coverage per capita. Scholars find that roads facilitate human transactions, including those related to ethnic violence with neighboring places (Holtermann, 2016; Zhukov, 2012). We calculate the road length per capita in 2000. Road length in each county is incorporated from China's GIS data in 2000, which we divide by the county population in 2000. The terrain is another key local factor that affects the distribution of violence (Buhaug et al., 2009; Do and Iyer, 2010). To test the effect of terrain, we include the average slope of each county in all specifications. Additionally, we control for the confounding effect of natural resource endowment by incorporating potential oil and natural gas sales revenue between 1995 and 2012 calculated from the reserve quantity and the annual price (Hong and Yang, 2020).

Ethnic violence might be closely related to economic conditions, so we control for GDP per capita and local population to measure the level of economic development and urbanization. We include the proportion of Uyghurs in the county population to address the possibility that the size of the Uyghur population explains the probability of ethnic violence. We also control for whether the government's financial or other measures reduce violence in Xinjiang using government revenue data to address the local government's provision of public goods and security measures. To explain the economic and security contribution of Bingtuan (Xinjiang Production and Construction Corps), we also control for the Bingtuan population's share of the county's total population. The summary statistics and data sources are found in Table A.1 and Table A.2.

# **Empirical strategy**

We employ a *logit* model as the main specification. Before examining the interaction between external and internal factors, we first analyze a simple model to test if terrorist attacks outside the country

directly promote ethnic violence in Xinjiang, using the following specification:

Violence<sub>i,t</sub> = 
$$\beta_1$$
Global Terrorism<sub>t-1</sub> +  $\alpha X_{i,t-1} + G_p + \varepsilon_{i,t}$ , (1)

where V iolence<sub>i,t</sub> is an indicator variable indicating whether a county i experienced any violent events in year t. GlobalTerrorism<sub>t-1</sub> is the logarithmic number of terrorist attacks in year t-1. As described earlier, we use three different categories of global terrorist events: global suicide terrorism, terrorism in Muslim countries and terrorism in neighboring Muslim countries. Our estimate of interest is  $\beta_1$ , which shows the *direct* effect of external violence.

We then investigate how internal conditions channel the effects of external violent incidents, employing the following equation:

Violence<sub>i,t</sub> = 
$$\beta_1$$
Global Terrorism<sub>t-1</sub> × Local Condition<sub>i,(t)</sub> +  $\beta_2$ Local Condition<sub>i,(t)</sub>  
+  $\beta_3$ Global Terrorism<sub>t-1</sub> +  $\alpha X_{i,t-1}$  +  $G_p$  +  $\varepsilon_{i,t}$ . (2)

LocalCondition<sub>i,(t)</sub> is a set of county-specific conditions which we argue cause the heterogeneous effects of global terrorism across Xinjiang. We specifically test the effects of religious factors measured by mosque density, geographic factors measured by the shortest distance to the national border with Pakistan and Afghanistan along with road coverage and terrain, and distribution of communication tools. It is worth noting that our measures of mosque density, terrain, road length and distance to Pakistan and Afghanistan are time-invariant. Although we agree that it is useful to employ county fixed effects to address potential county-specific traits that are related to ethnic violence, we cannot solely depend on the fixed effects model, as our main explanatory variables would not be estimated. Instead, we employ fixed effects at the prefecture level (N=14),  $G_p$ , to address features specific to each prefecture that potentially confound our key variables.  $X_{i,t-1}$  is a vector of time-variant control variables including population density, GDP per capita, proportion of Uyghurs and Bingtuan, and fiscal revenue of the local government. To address the concerns of reverse causality, all time-variant variables are lagged by one year.

# **Empirical results**

Table 1 presents the results of a simple *logit* regression analysis that examines whether external terrorist attacks have an impact on the occurrence of ethnic violence in Xinjiang. Contrary to the theoretical and empirical evidence found in previous studies, that ethnic or religious violence is closely linked to terrorist attacks in neighboring countries and around the world, we find a null or negative correlation between external terrorism trends and violence in Xinjiang. Global suicide terrorism is clearly negatively associated with violence in Xinjiang, while global Islamic terrorism and terrorism in neighboring countries are not linked to the onset of violence in Xinjiang, regardless of whether we control for the socioeconomic and geographic features of each county. These findings suggest that when global suicide attacks increase, violence in Xinjiang decreases in the following year.

We interpret these findings as evidence that the security capabilities of the Chinese government offset or even reverse potential diffusion effects. As Braithwaite (2010) finds, state capacity enables a country to block the spread of violence from neighboring territories. The Chinese government has long seen external terrorist organizations as a potential source of instability in Xinjiang and addressed them as such. The government regards Xinjiang as closely linked to Islamist insurgency movements in neighboring countries and Central Asian terrorist organizations such as the Islamic Movement of Uzbekistan and Al Qaeda (Clarke, 2008); it has also listed several East Turkistan

Table 1. External terrorism and ethnic violence in Xinjiang.

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)
Global suicide terrorism Global Islamic terrorism	-0.434*** (0.069)	_0.533*** (0.089)	-0.548*** (0.094)	-0.233*	0.081	0.163			
Terrorism in neighboring countries				(0.130)	(0.208)	(0.190)	-0.105	0.191	0.246
Controls Prefecture fixed effect		<b>&gt;</b> -	<b>&gt;-</b> >-		<b>&gt;</b>	<b>&gt;-</b> >-	(0.116)	(0.165) Y	(0.154)
Z	   44   1	1410	6811		1410	6811	44 1	1410	6811

population, proportion of Uyghur, GDP per capita, fiscal revenue, proportion of Bingtuan population, oil and gas reserve sales, slope and road per capita. All time variant variables Notes: Regression results are based on logistic model. Robust standard errors are clustered at the county level. Estimates of constant are not reported. Controls include are lagged one year. All time variant variables except proportions of Uyghur and bingtuan population are logarithmic values.  $^*p < 0.1$ ;  $^**p < 0.05$ ;  $^{***}p < 0.01$ .

forces as terrorist organizations and their leaders as top wanted terrorists. In particular, since the 1990s, the Chinese government has drastically expanded its domestic security apparatus to reinforce social security (Wang and Minzner, 2015). In this context, the rise of terrorist violence in other countries may have encouraged the government to enhance security measures to prevent the diffusion of those incidents within its borders. Figure A.3 shows that the average per capita security spending in Xinjiang has been greater than the national average or the average of other ethnic minority regions. Chinese citizens also show strong support for forceful government measures against ethnic violence in China (Hou and Quek, 2019). Our additional analysis of public security spending provides evidence to support this interpretation. In Table 2, we examine whether global terrorist attacks or those in neighboring countries affected the Chinese government's public security expenditures (per capita) in Xinjiang's counties from 1995 to 2007. For later years (2010–2012), we examine the number of police stations within a county as an alternative measure. The analyses confirm that external terrorist attacks in the previous year are strongly correlated with security expenditures and security capacity.

We then examine how the local conditions of each county mediate the diffusion effects of external terrorism, with a focus on the three potential mechanisms discussed in the previous section: religious, geographic and communication technology factors. We first consider whether the influence of external terrorism is conditional on geographic proximity to turbulent neighboring countries. Table 3 presents the results from the *logit* model. They suggest that geographic proximity to Pakistan and Afghanistan does dilute the subsiding effects of the terrorist attacks outside the border. To examine how distance from the border makes a difference in potential dissemination of violence when external circumstances are unstable and violent, we examine the interaction of external terrorism with the distance to the national border with Pakistan and Afghanistan. The interaction term is negative and significant, indicating that counties located closer to the national borders with these two volatile states are more likely to experience ethnic violence than other counties in Xinjiang when terrorist attacks are on the rise in these countries. The results are consistent across the three types of external terrorism. 11 Figure A.4 in the Online Appendix presents the marginal effects of external terrorism conditional on the distance to Pakistan and Afghanistan using the baseline models. In general, the effect of external terrorism is statistically significant and negative in counties over 700 km from the Pakistan and Afghanistan borders, using a 95% confidence interval. About 65% of counties in Xinjiang fall within this range. 12

Next, we investigate the role of religious institutions and report the results in Table 4. We find that the presence of religious institutions, measured by mosque density (the number of mosque/ area), has a negative impact on violence. 13 This suggests that religious counties are not necessarily more belligerent. In fact, when there are few aggressive terrorist attacks globally or in nearby states, religiously devoted areas experience less ethnic violence. This finding is consistent with a recent study by Cao et al. (2018a), in which the authors find a peace-promoting effect of mosques. This indicates that mosques may function as places where the Muslim ethnic minority population can channel their grievances in a non-violent manner during normal times. Nonetheless, historical religiosity has the opposite effect when external terrorism increases: the likelihood of ethnic violence increases in mosque-dense counties when terrorist attacks increase outside of Xinjiang. The results are robust to controls for geographic and local socioeconomic factors and are consistent across the three types of external terrorism. The results suggest that neither external terrorism nor religious institutions independently facilitate ethnic violence. Rather, both factors show violencedeterring effects. In contrast, the interactive effects of the two factors significantly diminish the pacifying effects. This indicates that the violence-deterring effect is smaller, non-existent or even reversed in religiously devoted counties when terrorist attacks increase outside of China.

Table 2. External terrorism and security expenditure.

	(I)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)
	Security exp 1995–2007	kpenditure po 7	Security expenditure per capita (log) 1995–2007	Growth rat 1995–2007	Growth rate of security per capita 1995–2007	y per capita	Police stat	Police stations (log) 2010–2012	0–2012
Global suicide terrorism	0.194***			0.041***			0.360**		
Global Islamic terrorism	(212:2)	0.013		(1.5.5)	-0.013		2	o.	
		(0.017)			(0.019)			(0.048)	
Terrorism in neighboring countries			-0.002			0			0.097***
			(0.012)			(0.016)			(0.034)
Controls	<b>&gt;</b>	<b>&gt;</b>	· -	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	· -
County fixed effect	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b> -	>-	<b>&gt;</b> -	<b>&gt;</b>
Z	6601	6601	6601	1014	1014	1014	252	252	252

Notes: Regression results are based on fixed-effects panel model. Robust standard errors are clustered at the county level. Estimates of constant are not reported. Controls include population, proportion of Uyghur, GDP per capita, fiscal revenue, proportion of Bingtuan population, oil and gas reserve sales, slope, road per capita and year trend. All time variant variables are lagged one year. All time variant variables except proportions of Uyghur and bingwan population are logarithmic values.  $^*p < 0.1; ^{**}p < 0.05; ^{***}p < 0.01.$ 

Table 3. External terrorism, distance to border and ethnic violence.

	(I)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)
Global suicide terrorism	-0.232*	-0.382***	-0.288*						
Global suicide terrorism × Distance	(0.120) 0.030**	(0.136) 0.025**	(0.155) -0.042***						
	(0.012)	(0.012)	(0.015)						
Global Islamic terrorism				0.225	0.529	0.761*			
Global Islamic terrorism×Distance				(0.253)	(0.351)	(0.412)			
				-0.070**	-0.067*	-0.093*			
				(0.030)	(0.035)	(0.048)			
Terrorism in neighboring countries							0.285	0.597**	0.767**
Terrorism in neighboring countries × Distance							(0.232)	(0.304)	(0.346)
							-0.059	-0.059*	-0.078
							(0.026)	(0.031)	(0.040)
Distance to Afghanistan and Pakistan	-0.047	-0.000	0.064	0.304	0.435*	0.532	0.177	0.335*	0.361
	(0.057)	(0.081)	(0.184)	(0.187)	(0.231)	(0.360)	(0.139)	(0.176)	(0.294)
Controls		≻	≻		<b>&gt;</b>	>		<b>&gt;</b>	<b>&gt;</b>
Prefecture fixed effect			≻			>			<b>&gt;</b> -
Z	<u>+</u>	1410	1189	14 	1410	1189	<u> </u>	1410	1189

Notes: Regression results are based on logistic model. Robust standard errors are clustered at county level. All time-variant variables are lagged one period. All control variables except proportions of Uyghur and bingtuan population are logarithmic values. Estimates of constant are not reported. Controls include population, proportion of Uyghur, GDP per capita, fiscal revenue, proportion of Bingtuan population, and oil and gas reserve sales.  $^*p < 0.1$ ;  $^{***}p < 0.05$ ;  $^{***}p < 0.01$ .

Table 4. External terrorism, mosque density, and ethnic violence.

	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)
Global suicide terrorism Global suicide terrorism×Mosque density	-0.472*** (0.074) 0.083***	-0.567*** (0.089) 0.055*	-0.566*** (0.099) 0.060**						
Global Islamic terrorism				-0.306**	0.038	0.169			
				0.312***	0.345***	0.342***			
				(0.02)	(960.0)	(0.105)			
Terrorism in neighboring countries							-0.170	0.135	0.213
Terrorism in neighboring countries $ imes$ Mosque							(0.124)	(0.172)	(0.159)
density							0.269***	0.299***	0.292***
							(0.086)	(0.09)	(0.103)
Mosque density	0.724**	0.034	0.112		-1.937***	-1.644**	-0.563	-1.327**	-1.015
	(0.335)	(0.181)	(0.217)	(908.0)	(0.711)	(0.794)	(0.797)	(0.663)	(0.723)
Controls		≻	<b>&gt;</b>		≻	≻		<b>&gt;</b>	<b>&gt;</b>
Prefecture fixed effect			<b>&gt;</b>			<b>&gt;</b>			<b>&gt;</b>
Z	1424	1393	1172	1424	1393	1172	1424	1393	1172

area. All time-variant variables are lagged one period. All control variables except proportions of Uyghur and bingtuan population are logarithmic values. Estimates of constant are Notes: Regression results are logistic model. Robust standard errors are clustered at county level. Mosque density is the number of mosques within a county divided by county not reported. Controls include population, proportion of Uyghur, GDP per capita, fiscal revenue, proportion of Bingtuan population and oil and gas reserve sales.  $^*p < 0.1; ^{**}p < 0.05; ^{***}p < 0.01.$ 

To understand the effect of external terrorism conditional on mosque density, we draw a graph of the marginal effect (Figure A.5). The marginal effect of external terrorism is negative and significant where mosque density is low. While many counties have a mosque density lower than 0.2, in those with a particularly high mosque density, the figures confirm that the violence-deterring effects of external terrorism do not exist This finding of conditional null effects is important, as it shows that the Chinese government's enhanced security measures in response to increased external terrorist attacks have limited suppressive effects in areas bordering the turbulent neighboring states or having a large number of Islamic religious sites.

Finally, Table 5 presents estimates of the mediating effects of communication technologies. We take three new and traditional technologies into consideration: the numbers of home (landline) phones, mobile phones and internet users per capita within each county. We find no evidence that any of these communication technologies have direct or indirect effects on ethnic violence. The results are similar for each type of external terrorism. They suggest that, at the aggregate level, the dissemination of communication technology to the regional population is not linked to the diffusion of violence. An authoritarian regime may actively use communication capabilities to monitor and control the information flowing into and out of the country, or to propagate government policies in the sphere of public opinion. Given the Chinese government's extensive engagement in online propaganda and censorship, it is likely that the government uses communication platforms to gather intelligence information on potential rebels, censor sensitive information and prevent the diffusion of violent extremist materials into China. These government activities may offset the use of communications tools by radical activists, resulting in null mediating effects of communications technologies on violence diffusion. Figure A.6 describes the marginal effects of global terrorism conditional on different communication technologies. The figures confirm that global terrorism has no conditional effect on violence in counties with different levels of communication technologies.

#### Robustness check

To examine the robustness of our empirical findings, we conduct additional statistical investigations. First, we address the possibility of spatial spillover effects across Xinjiang's counties. In our main analyses, we assume that the local conditions of each county shape the potential effects of outside violence in that county alone. An obvious challenge to this assumption is the potential diffusion of violence across county boundaries. If neighboring counties affect one another with regard to ethnic violence, the standard regression estimation could lead to a biased result. We employ a spatial maximum-likelihood (S-ML) model to resolve the issue (Beck et al., 2006; Franzese Jr and Hays, 2007, 2008). Tables A.7 and A.8 present the estimation results. The spatial lag has no significant effect on violence in any column, and the results are consistent with the main findings after adding the spatial lag to the estimation. This shows that the spatial interdependence of ethnic violence is not severe in Xinjiang and thus should not be too much of a concern in our estimation.

In addition, we examine whether other types of institutions have a similar effect to mosques as potential places for gathering or idea dissemination. In the previous analyses, we find that the interaction term between mosque density and external terrorism increases the probability of violence. What is unclear from this analysis is what mosque density represents. In Xinjiang, religious institutions can be a representative proxy for historical and cultural religiosity (Hong and Yang, 2020). At the same time, they are physical sites where public goods and necessary information can be provided (Cao et al., 2018a), or where the network necessary to coordinate collective action can be

Table 5. External terrorism, communication technology and ethnic violence in Xinjiang.

	6								
	(I)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)
Home phone per capita Mobile phone per capita	-6.011 (14.297)	-10.832 (15.577)	-8.053 (11.005)	-21.930*	-1.532	-0.251 73.827			
Internet use per capita				(15.17)	(3.733)	(3.827)	25.999	-23.794	-23.005
Global suicide terrorism Global Islamic terrorism	-1.006** (0.408)	**066.0-		-1.157** (0.482)	-0.839**		(81.339) 0.074 (0.688)	(64.034) -0.479	(39.801)
Terrorism in neighboring countries		(0.415)	-0.928**		(0.367)	-0.781**		(0.729)	-0.515
Global suicide terrorism $ imes$ Home phonee	2.032		(5.11.0)			(6.575)			(7/5.0)
Global Islamic terrorism×Home phone	(2.464)	726.1							
Terrorism in neighboring countries ${\sf x}$ Home phone		(5.1.20)	1.824						
Global suicide terrorism $ imes$ Mobile phone			(987:1)	3.623*					
Global Islamic terrorism×Mobile phone				(2.024)	0.063				
Terrorism in neighboring countries $\times$ Mobile phone					(0.735)	-0.114			
Global suicide terrorism×Internet use						(6:223)	-5.719		
Global Islamic terrorism×Internet use							(14.000)	2.362	
Terrorism in neighboring countries $ imes$ Internet use								(614.7)	2.529 (5.417)
Time period		2000–2012			2000–2012			2002-2012	
Controls and prefecture fixed effect N	Y 706	706	× 706	Y 659	۲ 459	۲ 459	≻ 5 <u>13</u>	<b>≻</b> 12	× 213
-			,,,		. ;				

Notes: Regression results are based on logistic model. Robust standard errors are clustered at county level. Security expenditure per capita and number of police stations are logarithmic values. All time-variant variables are lagged one period. All control variables except proportions of Uyghur and bingtuan population are logarithmic values. Estimates of constant are not reported. Controls include population, proportion of Uyghur, GDP per capita, fiscal revenue, proportion of Bingtuan population and oil and gas reserve sales.
\*p < 0.01; \*\*p < 0.05; \*\*\*p < 0.01.

established. Mosques could be seen as physical spaces that facilitate the organization of people and resources for violent action, regardless of religious devotion.

It is difficult to pin down the exact function that mosques play without accessing data from the field. Instead, we provide suggestive indirect evidence by testing alternative physical spaces where the coordination of collective action might take place. We examine other religious sites, i.e. churches and temples, and the number of middle school students in a county as a proxy for the number of middle schools. Table A.9 presents the results with the same specifications as Table 4. We find that the external terrorism is negatively linked to the onset of violence in areas having a larger numbers of churches and temples (columns 1–3). The number of middle schools does not affect violence (columns 4–6). These results suggest that religiosity, rather than the physical space to coordinate, plays a key role in our findings on mosques.

Lastly, we adopt an alternative time lag for the terrorism variables. In the main analyses, to address endogeneity and reversed causality issues, we choose a one-year lag for all time-variant variables. However, in the case of global terrorist events, concerns about endogeneity or reversed causality are implausible. Hence, we investigate whether our results are sensitive to the time lag of our key independent variables. Table A.10 replicates the previous analyses using the terrorist attacks that occurred in the same year as the dependent variable, violent incidents in Xinjiang. The results are consistent with the main findings.

In addition, motivated by the findings of Cao et al. (2018a), we include horizontal inequality as a key control variable in Tables A.11 and A.12 in the Appendix. We draw the inter-ethnic inequality variable from the 2000 1% Population Census. Following Cao et al. (2018a), we measure horizontal inequality by comparing the share of the population with more than a lower-secondary education in the Han and Uyghur populations in each county, employing individual-level census data. We did not include this variable in our main analysis, as the data were available in only 71 counties, significantly reducing the number of observations.

#### Conclusion

Existing work suggests that external turbulence plays a critical role in shaping ethnically or religiously motivated violence in neighboring areas. This paper contributes to the literature by showing the nuanced diffusion effects in a state where the government maintains a commanding advantage in security power. We find that the effect of external shocks on internal violence is contingent on state capacity and local conditions, particularly the historical religiosity of the area and its geographic proximity to the source of the external shocks.

We find that violence in Xinjiang is in general negatively affected or not affected by global terrorism related to Islam. We provide suggestive evidence that the Chinese government has a strong will and capacity to maintain stability, which it further enhances when external circumstances are volatile. Violence in Xinjiang actually follows an opposite trend to global terrorism; Xinjiang's ethnic violence, on average, decreases when global terrorism increases.

However, in contrast to the average effect, we find several nuanced subnational variations in the diffusion effects of external violence. First, we find that the subsident effects of external terrorism on violence in Xinjiang disappear in counties with high mosque density. Through additional tests, we conclude that external terrorism may signal a radical type of religious activism. Moreover, our analyses show that the counties close to volatile Muslim countries such as Pakistan and Afghanistan are more vulnerable to Islam-related terrorism in those countries and the world. Therefore, in those counties, the violence-deterring effects of external terrorism might be non-existent or reversed into violence-enhancing effects.

Our study suggests that, on the one hand, the Chinese government has effectively blocked the diffusion of terrorism from neighboring Islamic countries when the severity of violence has increased in the region and in the world. On the other hand, this blockade has not been complete. Our findings show that the blockade has been less effective near the border and in areas that have historically been more religious.

Future research might build on this study in several ways. Owing to the lack of systematic data, we collect data from various available sources. Despite our efforts to incorporate a wide range of sources, we are concerned about undercounting violent events, as many that have occurred in Xinjiang may be unknown to the outside world given the tight government control over information. Future efforts might thus enhance the quality of the data on violent events. In addition, our geographic focus is on Xinjiang, and our study does not address the strategical determination of locations of violence outside Xinjiang. Two violent events outside Xinjiang, a suicide attack in Beijing's Tiananmen Square in 2013 and a violent attack at Kunming Station in 2014, particularly alarmed the Chinese government and its citizens. Despite the political impact, we still know little about how decisions about the location of an attack are made given specific international and local conditions. Furthermore, despite our effort to explore a variety of mechanisms, challenges persist in pinpointing other specific mechanisms by which external factors are linked to violence in Xinjiang. In particular, we were not able to determine the exact channel through which information on global terrorism flows across China's border. In addition, while we find a large set of internal factors to have null effects, this does not necessarily indicate that these mechanisms do not work at all. More systemic and reliable data will be critical for overcoming the current limitations. We leave these issues for future research.

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## Supplemental material

Supplemental material for this article is available online.

#### **Notes**

 A large body of evidence suggests that civil conflicts with external support typically last longer, lead to more fatalities and are less likely to be resolved (Cunningham, 2010; Heger and Salehyan, 2007;

Regan, 2002*b*; Salehyan et al., 2011). Rebel groups can gain access to funds, weapons and sanctuary from foreign countries (Byman et al., 2001; Regan, 2002*a*; Salehyan et al., 2014; Schultz, 2010). External funding may reduce the need for rebels to obtain resources from the local population (Salehyan et al., 2014), while disruptions in external support can increase dependence on local support and reduce violence against local civilians (Zhukov, 2017).

- 2. See the Appendix for examples of white papers discussing foreign influences.
- 3. For example, http://www.china.org.cn/english/2002/Jan/25582.htm (last accessed 19 May 2021).
- 4. Greitens et al. (2020) point out that increased transnational interactions across Xinjiang's international border, assisted by active Uyghur diaspora groups, are the major cause of the Chinese government's policy shift in Xinjiang around 2017. Our study investigates the period prior to this major policy shift in 2017–2018.
- Saud Mehsud and Maria Golovnina. 2014. "From his Pakistan hideout, Uighur leader vows revenge on China". in.reuters.com/article/pakistan-uighurs-idINDEEA2D08U20140314 (accessed 20 May 2021).
- 6. Cao et al. (2018b) provides an alternative systematic dataset of Xinjiang's ethnic violence. We use our dataset instead of Cao et al. (2018b) owing to the time frames covered. Cao et al. (2018b) provides information on violent incidents up to 2005, but a large number of global terrorist attacks occurred after 2005, as Figure 2 shows. To examine the dynamics of external and internal violence, we deemed it important to include the recent years when the numbers of external Islamic terrorist attacks drastically increased in Muslim countries including those neighboring Xinjiang.
- 7. The largest data source is Radio Free Asia (www.rfa.org/). To assure the quality of our data, especially vis-à-vis other quantitative research on violence in Xinjiang, we compare our data with datasets used in recent publications. The first is Cao et al. (2018b), which provides violence data up to 2005. The second is Potter and Wang (Forthcoming), which covers the entire research period of our study. Figure A.2 in the Appendix plots our data together with the other two recently published datasets. The trend of violence in our data resembles that of the other datasets, assuaging the quality concern to some extent. It is worth nothing that to the best of our knowledge, no systematic geolocated data have been collected on the severity of violence in Xinjiang. Other datasets either marked the occurrence of a violent event with a geographic identifier (Cao et al., 2018b) or provided information on the scale of violence without geographic information (Potter and Wang, Forthcoming).
- 8. The government has devoted massive counter-terrorism efforts to the region: from 2001 to 2010, Xinjiang local police cracked down on 579 terrorist groups, prosecuting 7,890 of their members (Jia, 2015). In 2014, the government launched a one-year security crackdown targeting terrorists in Xinjiang, including 181 terrorist groups (Pan, 2015).
- 9. The security expenditure data at the county level is only available up to 2007.
- 10. In Table A.3 in the Appendix, we test whether the increased security spending has direct effects on the level of ethnic violence. Per capita public security spending has a clear negative impact on violence.
- 11. We also test whether various domestic factors affect violence via the government's security spending, finding no statistically significant effect except for the mosque density (Table A.5 in the Appendix).
- 12. We also draw the graphs with OLS models using methods suggested by Hainmueller et al. (2019) and present them in the Appendix.
- 13. To address the concern that mosques per area might capture the availability of religious institutions, we rerun the main analyses simply using the logarithmic number of mosques in Table A.6. The results are consistent with our main findings.

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