

Foreign Interventions and Community Cohesion in Times of Conflict*

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Abstract

This paper analyses how foreign military interventions relate to the internal cohesion of communities and the role of local institutions in times of conflict. I consider the case of Afghanistan where households have been exposed to conflict for decades. Given an environment where formal institutions are unstable or even lacking, the local community becomes more important. Relying on support from others in the community is thus a common strategy for households to cope with different types of shocks. At the same time, the success of security missions crucially depends on cohesion within communities as they are relevant partners in counterinsurgency and reconstruction activities. Due to endogeneity concerns, I apply different estimation techniques, including a geographic regression discontinuity design. My findings suggest that households in districts where foreign military forces are present receive less help from others in their community, have less trust in community councils and participate less in those institutions.

Keywords: Conflict, foreign military interventions, security missions, social/community cohesion, Afghanistan

JEL Classification: D74, D79, O12, O53

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1. Introduction

A large literature argues that social interactions in communities are unlikely to change from one day to another. Nunn (2008), Guiso et al. (2016) and Dell et al. (2017), for instance, show that social cohesion is a slow process with deep historical roots. Contrary to this, numerous studies provide evidence that also short- and medium-term shocks can affect social interactions and cooperation (see amongst others Bellows and Miguel, 2009; Fearon et al., 2009).

In this paper, I analyze the short-term effects of foreign military interventions on the cohesion within communities and the role of local institutions in times of conflict. In particular, I consider the role of the International Security Assistance Force (ISAF) in Afghanistan, which “was one of the largest coalitions in history and is NATO’s most challenging mission to date.”¹ ISAF takes a counterinsurgency (COIN) approach (e.g., Dorn, 2011) to achieve its mission of enhancing security and creating a safe environment for reconstruction and nation-building.² Afghanistan – apart from its humanitarian and political relevance – serves as a practical case from a statistical point of view. Despite being one of the most severely conflict-ridden countries in the world, data on social interactions at the household-level as well as geocoded conflict data is available for almost the entire country. Given the high intensity of conflict for decades, households have already adopted mechanisms to deal with the never ending insecurity. In this setting, “ISAF deployment is a relative new phenomenon [...] and its strategies change continually”, which makes it possible to “disentangle the response of old coping strategies to a new type of event” (Bove and Elia, 2014).

In an environment where state institutions are unstable or even lacking, community cohesion plays a central role. According to Jones and Muñoz (2010) we need to better understand the role of such institutions since power in rural areas of Afghanistan tends to be local. This is not only relevant from the perspective of households, but also when it comes to the success of counterinsurgency and security missions. It is well accepted that local communities are relevant partners in counterinsurgency and post-conflict reconstruction activities. Receiving information about insurgents is an important resource during wars and civilians are therefore approached and (ab)used to share sensitive wartime information (see e.g., Berman and Matanock, 2015; Lyall et al., 2015; Wright et al., 2017).³ This applies as well to insurgents, whose rebellion rests on the

¹“At its height, the force was more than 130,000 strong, with troops from 51 NATO and partner nations” (https://www.nato.int/cps/en/natohq/topics_69366.htm, accessed February 8, 2018).

²It differs from a pure peace-keeping mission. However, Friis (2010) argues peacekeeping and counterinsurgency “seem to be converging and share some commonalities”, such that a clear distinction is not always possible.

³“Civilian information about the identity or location of rebels, or even about local terrain and customs, makes government attacks much more effective at controlling territory (by capturing, killing, or intimidating rebels). We call this an information-centric framework” (Berman and Matanock, 2015).

support of the communities. Local and international development actors usually also rely on communities for an effective implementation of the projects. For instance, the National Solidarity Program (NSP) implements development projects in cooperation with the communities and thereby tries to strengthen local self-governance.⁴ Community-level ties are thus a prerequisite for many policy measures to be effective. However, according to anecdotal evidence, ISAF – while being dependent on the communities – has detrimental effects on social cohesion. [Cohn \(2009, p. 3\)](#), for instance, argues that ISAF “helped to undermine and marginalize the important role played by village elders in Afghan culture.”

Given that the conflict in Afghanistan is an inherent long-term phenomenon, it correlates with almost any possible outcome, as it is the case for the deployment of international forces and community cohesion. Due to endogeneity concerns, I propose different estimation techniques to get as close as possible to measuring causal effects. I combine georeferenced data on the presence of ISAF and geocoded conflict events with household-level data from the National Risk and Vulnerability Assessment (NRVA) and the Survey of the Afghan People ([Asia Foundation](#), 2007-2014), which are both large and nationally-representative household surveys.

First, by using information at the household-level, I apply high-dimensional fixed effects that capture a large part of the omitted variables that likely bias my results. Second, I exploit exogenous variation in the need to rely on community cohesion induced by climatic shocks and consider the interaction effect of this income shock with the presence of international military forces.⁵ While this approach does not allow to analyze the direct effect of foreign security missions on community cohesion, it enables me to investigate heterogeneous effects of short-term income shocks depending on whether ISAF is present in a district or not. The interaction effect can be regarded as exogenous as I control for the levels of the interaction term (see e.g., [Bun and Harrison, 2018](#); [Nizalova and Murtazashvili, 2016](#)). Third, I make use of the mandate enlargement of ISAF during the period from December 2003 until October 2006 in a geographical regression discontinuity (GRD) design. I exploit the fact that the boundary between the northern regional command – where ISAF has been deployed to first – and the rest of the country – where the mandate enlargement took place with a time lag – splits households into a control and treatment area in an “as-if-random” assignment.⁶

The paper contributes to different strands of the literature. First, it adds to the

⁴NSP development aid is provided via community councils. If there is a lack of social cohesion, the assistance might not be distributed most efficiently. Participation in such programs is also less likely when there is less social cohesion.

⁵There is increasing literature on how income shocks affect conflict. See for instance [Brückner and Ciccone \(2010\)](#) and [Bazzi and Blattman \(2014\)](#) for studies at the macro-level as well as [Berman and Couttenier \(2015\)](#), [Berman et al. \(2017\)](#) and [Gehring et al. \(2018\)](#) for studies at the micro-level. These studies exploit variation in international commodity prices or weather conditions to instrument changes in income.

⁶I discuss the suitability of this approach in detail in [Section 4](#) and [Section 5](#).

literature on conflict and social cohesion. According to [Fearon et al. \(2009, p. 288\)](#), the standard approach in measuring social cohesion “[i]nvolves surveying households to assess levels of trust, patterns of community activity, and the extent of associational life.” In analogy, [Chan et al. \(2006, p. 290\)](#) summarize social cohesion as a “set of attitudes and norms that include trust, a sense of belonging and the willingness to participate and help.” Following this literature, I rely on different indicators of community cohesion, including participation in local community councils, trust in such councils and whether households receive help from others in their community, which can be regarded as a proxy for prosocial behavior.

[Bauer et al. \(2016\)](#) summarize the current stage of this literature in a meta-analysis covering 23 articles. The studies vary with respect to their analytical approach and outcome variables. While some studies exploit (repeated) household questionnaires as I do (see e.g., [Bellows and Miguel, 2009](#); [De Luca and Verpoorten, 2015](#)), others apply incentivized lab-in-field experimental games (see e.g., [Fearon et al., 2009](#); [Voors et al., 2012](#); [Gilligan et al., 2014](#)). [Bauer et al. \(2016\)](#) conclude from their meta-analysis that violence induces cooperation and prosocial behavior across different outcome measures. None of the studies they consider is on Afghanistan. Besides adding another country-case, I augment this literature strand by highlighting the role of foreign security missions in how community cohesion is affected in times of conflict.

Second, the paper contributes to the literature on the effectiveness of security missions in achieving peace and providing an environment for reconstruction and nation-building. The deployment of external forces in war contexts in the form of security and peacekeeping missions is a common policy tool, but the analyses of the effects of these policy measures are limited to specific outcomes. Most obviously, many studies focus on violence or peace as the outcome of interest (e.g., [Gilligan and Sergenti, 2008](#); [Hultman et al., 2013](#); [Ruggeri et al., 2013](#)). Others analyze changes in household attitudes towards and collaboration with pro-government forces including international troops as compared to insurgents given that they are exposed to violence by either party (e.g., [Lyal et al., 2013](#); [Hirose et al., 2017](#); [Schutte, 2017](#)).

A long list of studies shows, for instance, that social cooperation is beneficial for development (see e.g., [Knack and Keefer, 1997](#)), and could thus be a channel on how security missions affect their main objectives of reconstruction, development, and peace. [Collier and Hoeffler \(2004\)](#) more directly find that decreases in social cohesion can contribute to conflict. In line with that, [Gilligan et al. \(2014\)](#) find that social cohesion implies a strong potential for recovery. Despite acknowledging that the success of counterinsurgency activities, post-conflict reconstruction, and nation-building efforts depends on community cohesion, evidence on the effects of such missions on social cohesion is scarce. [Iyengar et al. \(2017, p. 7\)](#) conclude from a systematic review on Afghanistan that “evidence on community cohesion in the existing literature was too

limited to draw a conclusion and in many studies was not even considered.” Closely related to my analysis are the studies by [Dell and Querubin \(2017\)](#) and [Weidmann and Zürcher \(2013\)](#). [Dell and Querubin \(2017\)](#) exploit a discontinuity of two different military strategies applied in the Vietnam War, one relying on overwhelming firepower and the other more on a “hearts-and-minds-oriented” approach. The authors identify worse effects on security and local government administration of the first strategy relative to the latter. [Weidmann and Zürcher \(2013\)](#) show how conflict affects social cohesion and attitudes about the warring parties in Northern Afghanistan. Their study relates to the effects of foreign military interventions to the extent that the author differentiates between who is fighting, including ISAF forces. The authors find that attitudes change, but that these effects do not extend to changing the trust or cooperation within communities. While the results are very insightful, the authors do not derive any causal estimates. Additionally, their sample covers only four out of 398 districts over the 2007 to 2009 period.

Third, I add to the literature on the role of aid in “winning hearts and minds” of the local population (see e.g., [Berman et al., 2011](#)). Recent studies on Afghanistan elaborate on the effects of military-led aid projects ([Sexton, 2016](#); [Child, nd](#)), aid provided through the National Solidarity Program (NSP) ([Beath et al., 2016](#)), or development aid more broadly ([Böhnke and Zürcher, 2013](#)). Studies on Afghanistan, but also other countries (e.g., [Crost et al., 2014](#)), provide mixed results. Aid can indeed be effective in building pro-government support from communities, but can also lead to more violence. My study relates to this literature strand as these two strategies, “winning hearts and minds” through aid and approaches based on the deployment of military forces (with different degrees in applying force) have to be considered in tandem. The mission of such military interventions is to secure an environment such that reconstruction efforts can be made. In my analysis, I will account for the presence of aid and reconstruction programs. I also investigate heterogeneous effects of aid effectiveness and its acceptance by communities depending on whether ISAF is present or not.

This analysis differs from the mentioned studies to the extent that their focus is often on peace-keeping missions after war or on violence committed by foreign forces. I consider the presence (conditional on violence), which does not necessarily coincide with violence. Besides this, studies at the community- or household-level focus on attitudes towards the government versus insurgents and information sharing with either warring party. In this study I elaborate on how within-community ties are affected, ties which form the “glue that holds society together” ([Janmaat, 2011](#)). Finally, many related studies consider a small fraction of the country, which is due to survey data being available only for this particular subset (as it is often the case in randomized experiments). However, this constrains external validity even within the country. This study, on the contrary, provides evidence for more than 90% of the country’s districts over the period from 2005 to 2014. The results of the different estimation approaches all point to the same finding. In line

with anecdotal evidence, I find that ISAF presence has a negative effect on different measures of community cohesion.

I proceed as follows. In [Section 2](#) I discuss the theoretical mechanisms at the local level. [Section 3](#) introduces the data and [Section 4](#) the three different identification strategies. Results of each strategy are presented in [Section 5](#) along with robustness checks. Potential mechanisms at place are discussed in [Section 6](#). Finally, [Section 7](#) summarizes results and highlights policy implications.

2. Mechanisms at the local level

In many conflict-ridden countries, the community- or village-level plays a central role as state institutions are often unstable or even lacking (e.g., [Arjona, 2014](#)). Social and political institutions are therefore often provided by local leaders. In Afghanistan, local entities are traditionally governed by local non-state actors, i.e. by the elders of the village and the so-called shura or jirga, which is a community (village) council (e.g., [Asia Foundation, 2007](#); [Jones and Muñoz, 2010](#)).⁷ Shura refers to “meetings by lead representatives of factions, clans, families, militias, or other units relevant to resolution of a problem or class of problems” and they are “generally convened for the purpose of discussion and collective decision making” ([Asia Foundation, 2007](#), p. 23).⁸ For instance, dispute solving most commonly takes places at this level. Whereas the state is not regarded as legitimate in many regions in Afghanistan, the shura and village elders qualify as legitimate protectors. While the “custom and informal customary dispute resolution in civil matters is explicitly recognized by Afghanistan’s Civil Code (1976) and Civil Procedure Law (1977)”, agreements which are solely concluded through these informal councils are not legally binding ([Wardak, 2016](#), p. 15).

The literature has provided numerous hypotheses about how communities react when they are exposed to shocks or external threats. In the NRVA survey, about 60% of households suffer from any type of shock including income shocks caused by climatic changes or price changes but also shocks induced by insecurity and violence. Households that are exposed to negative shocks are more likely to ask for help from others at the local level when state institutions are not present. I therefore expect that the exposure to common threats to be linked to an increase in community cohesion (in line with [Bauer](#)

⁷In the following I will use the term shura when I refer to these traditional community councils. While shura is the Arabic word, jirga is the Pashto word. “Historically, a jirga is a temporary council established to address specific issues, while a shura is a more permanent consultative council. In practice, however, the two terms are often used interchangeably” ([Jones and Muñoz, 2010](#), p. 21). “Unless the village is big Jirga/Shura is usually made up of representatives from more than one village (village cluster, district, valley, or tribal segment)” ([Asia Foundation, 2007](#), p. 23).

⁸This also involves development activities, in which the shura became more involved after the fall of the Taliban. Many donors of aid projects are consulting and working with the traditional shuras ([Asia Foundation, 2007](#)).

et al., 2016). In Afghanistan, communities have set up so-called *Arbakai* or *Chalweshtai*, which are community police forces that implement the decisions of the local shura to deal with threats.⁹ In line with this anecdotal evidence is Jennings and Sanchez-Pages' (2017) theoretical model, which shows that an "external threat stimulates social capital as there now exists a protective reason to invest in it" (p. 158). The authors additionally argue that the relation depends on the intensity of the threat and differs between rich and poor societies.

While this study relates to previous work on how threats like conflict affect social capital, it focuses in particular on how foreign military interventions affect community cooperation and how the general link between community cooperation and negative shocks depends on the presence of the foreign military.

When ISAF enters the territory, we can expect different mechanisms to occur, depending on whether they enter i) territory formerly in the hands of the government versus the insurgents, and thus ii) uncontested versus contested territory. As ISAF assists the Afghan government in counterinsurgency activities, their deployment could indicate higher levels of pro-government presence and control (as argued by Sexton, 2016), which could go along with higher levels of perceived security. However, in case military installations are strategically located to insecure areas or in case these bases become the target of Taliban attacks and thus attract conflict, their presence might be associated with an increased risk of contestation. According to the data provided by UCDP/GED within the period of observation, fighting takes place almost exclusively between Taliban on the one side and pro-government forces including ISAF on the other side.¹⁰ This is why I frame conflict as contestation since two opposing conflict actors fight for control over a territory.

While violence usually does not directly involve the communities, households are still affected by the surrounding insecurity and are exposed to power shifts at the community- and district-level (see e.g., Weidmann and Zürcher, 2013). Fights between both warring parties could be regarded as a common threat. In contested areas, households face a higher uncertainty about who controls the area in the future. They can neither rely on the government nor the rebel leaders for longer-term support in times of economic hardship. Just like for common negative income shocks one could expect that social cohesion is increasing. However, while the threat can be regarded as common as it introduces higher levels of insecurity, it must not be common in the sense of which conflict actor is supported by the community members. For this reason, one could expect the opposite effect of contestation if cleavages begin to emerge. Households are no longer confronted by one common threat, but rather, face a new actor and are thus exposed to

⁹There are a number of alternative terms or definitions of such neighborhood watch schemes, local protectors or local defenders (Jones and Muñoz, 2010).

¹⁰The share of this type of violence by all reported battle-related deaths makes up 95%.

two rival groups that fight for control. This mechanism is likely to be amplified by the fact that both warring parties seek for wartime information within the communities (see e.g., [Berman and Matanock, 2015](#); [Lyall et al., 2015](#); [Wright et al., 2017](#)). Households might not know anymore whom they can trust as they don't know with whom their neighbors are cooperating. This is likely to affect the legitimacy of village leaders and the shura. As [Weidmann and Zürcher \(2013\)](#) point out, exposure to conflict between pro-government forces and insurgents can thus lead to an erosion of the community's social glue.¹¹ There is another mechanism at place in contested districts which might also result in less community cohesion. To get control, both conflict actors "need the support of the population to win" ([Jones and Muñoz, 2010](#), p. 5). They might increase the provision of institutions like public goods ([Arjona, 2014](#)) and protection (see [Tilly, 1985](#)). The increased support by both groups could affect the relevance of the local institutions and could weaken the informal ties between community members.

If the foreign military enters uncontested districts which are under government control and remain uncontested, one could expect an increased provision of formal institutions and infrastructure via undisturbed reconstruction efforts. This might render informal institutions at the community level less important as they are crowded out by more formal (state) institutions. The empirical (e.g., [Acemoglu et al., 2014](#); [Guiso et al., 2016](#); [Dell et al., 2017](#); [Lowes et al., 2017](#)) and theoretical (e.g., [Bowles and Gintis, 2002](#); [Acemoglu and Robinson, 2017](#)) literature, however, provide mixed results on whether strong state capacity is a complement or substitute of governance and cooperation at the community-level. What is more, according to anecdotal evidence, ISAF has been criticized not to coordinate with the locals and to rather bypass the local shuras in decision-making processes, which increases the confusion of who has control.¹² This might result in less cohesion when cohesion is measured by participation and trust in those traditional councils. However, it might also raise skepticism towards ISAF.¹³ [Child \(2017, p. 8\)](#) highlight another reason for an increased skepticism based on the perception of reconstruction activities as they "can be unwelcome by some community members on ideological grounds." This negative perception likely spills over to foreign personnel in general, whether being development workers or part of the military. [Böhnke and Zürcher \(2013\)](#) indeed find that – if at all – development projects lead to a more negative perception of foreigners. [Child \(2017\)](#) further distinguishes between projects that are more political like education as compared to health projects, with the latter inducing less resistance. Since military forces are clearly linked to a political mission, one can assume

¹¹[Schutte et al. \(2018\)](#) introduce fear as a mediator of how conflict affects cohesion. Assuming that ISAF introduces fear, this concept can be related to the context of how security missions affect cohesion.

¹²ISAF's interpreters are usually not representatives of the population. Rather they are commonly from educated and wealthy households.

¹³Another criticism, which led to more skepticism, is that favoritism occurred and the way ISAF spends money has not been transparent, which caused – perceived – rising inequalities.

more resistance.¹⁴ Thus, even if ISAF leads to an increased provision of formal support mechanisms and new institutions, households might not rely on these because of negative perceptions. The traditional local institutions would then not be crowded out by new formal institutions.

Given these different mechanisms that can occur, the net effect remains to be empirically tested. While anecdotal evidence points to the fact that the foreign military intervention leads to the erosion of local institutions, no quantitative evidence proves this. I, therefore, exploit various estimation techniques to get close to measuring a causal effect on how ISAF affects community cohesion. Before I present the details of the identification strategy in [Section 4](#), I introduce the data in the following section. In [Section 6](#) I expand into potential explanations and mechanisms.

3. Data

All variables listed in the following are described in more detail in [Appendix C](#) with descriptive statistics being presented in [Appendix D](#).

Household level. I derive most of the data from the National Risk and Vulnerability Assessment (NRVA), a survey of Afghan households conducted in 2005, 2007/08, 2011/12.¹⁵ While the three waves are comparable in many questions, they differ in some important ones. I describe the harmonization procedure in detail in [Appendix C](#).

The surveys were conducted by the Ministry of Rural Rehabilitation and Development (MRRD) and the Central Statistics Office (CSO) with the support from the European Union. The three waves cover between 21'000 and 31'000 households in 341 between 388 districts (of a total of 398 districts in 34 provinces).¹⁶

It includes data on shocks that the household experienced within the last 12 months as for instance insecurity, opium eradication, price and various climatic shocks. I construct a binary measure taking on the value of one if the household experienced any shock, which might be endogenous, and a second measure on exogenous climatic shocks.¹⁷ In the same

¹⁴[Child \(2017\)](#) backs this concern with insights from field interviews which point to projects causing more resistance when they are tied to the military.

¹⁵The survey has been continued and since 2013 renamed to Afghanistan Living Conditions Survey (ALCS). I requested the recent datasets but after one year still haven't received them. Note also that the first wave was conducted in 2003 already. For reasons of comparability of the survey structure and design, the 2003 wave is only used for balancing tests in the RDD approach and not included in the panel regressions. Only starting with the second wave in 2005, the survey is designed to be nationally representative. The 2003 wave includes a much smaller number of households and a much smaller set of variables. It still provides important information that I use to validate the GRD.

¹⁶"The number of rural communities or villages in Afghanistan is a matter of interpretation. The Central Statistics Office counts 40,020 rural villages, while the NSP counts 24,000 communities" ([Nixon, 2008](#)).

¹⁷The latter takes a value of one if the household has been hit by one of the following climatic shocks: Earthquakes, Landslides/avalanches, Flooding, Late damaging frosts, Heavy rains preventing

section, the survey provides very specific information on coping strategies that households apply as a response to the different shocks. The list of potential coping strategies covers 26 measures with some being suitable to proxy community cohesion.¹⁸

I construct different indicators for community cohesion. *Community Help* is an indicator taking the value of one if the household received help from others in the community. Similar to this variable, I build a wider measure including both *Community Help* and whether the household received a loan from friends or family *Community Help+Loans*. These proxy variables are not ideal for capturing the entire spectrum of social cohesion, though they capture an important part, which is pro-social behavior. Bauer et al. (2016), for instance, classify the typical outcome variables into different categories with one being pro-social behavior. Note that I cannot differentiate between different motivations of a community member to provide help. Whether the decision to help is motivated by altruism or reciprocity is not possible to disentangle from this analysis.¹⁹ Besides this dimension, many studies consider social group participation or community participation as relevant outcome variables. I, therefore, construct the alternative measure *Council Member* that is based on community behavior and in particular on the participation in community councils.²⁰

The survey also provides information on household composition, assets, education, sources of income, food consumption and expenditures. Furthermore and very relevant for the analysis are the survey questions on development aid. One important development program that has been introduced in some areas of the country in 2003 and thus around the same time as the ISAF mandate had been enlarged to the north was the National Solidarity Program (NSP) created by the Afghan MRRD and funded by the World Bank (WB) as well as bilateral donor countries.²¹ The NSP created so-called Community Development Council (CDC) at the community-level to implement infrastructure or agriculture projects in collaboration with the community and to strengthen community-

work, Severe winter conditions, Hailstorms.

¹⁸When using these variables I control for the household having experienced a shock to account for the survey design. Without doing this my results could be driven by differences in the exposure to shocks and not by the coping behavior.

¹⁹These variables represent the supply side. However, by controlling for different shocks that household experienced I account for the demand of community support. In particular I also account for covariate shocks induced by climate shocks, which usually demand for the community rather than single households to cope with it. This is due to the fact that most households are working in agriculture and are dependent on the surrounding households because of, for instance, irrigation systems.

²⁰The question in the survey is: “Is anyone in your family a member of the following decision making bodies in your community?” Following Iyengar et al. (2017) I build a measure on whether the community shura is asked for dispute solving mechanisms. The question in the survey is: “How was the dispute over land or housing solved?” with the possible responses: “With help of court” or “With help of neighborhood representatives or village authority.” However, the latter measure turns out to be missing for more than 97% of the sample. The survey does not allow to derive measures that capture the output side of these councils. Though, while *Community Help* and *Community Help+Loan* represent the output or supply side of community cohesion in general, *Council Member* represents the input side.

²¹By 2008, the program covered two-thirds of the communities in the country (Nixon, 2008).

level governance. The NSP works together with different international groups and NGOs that support CDCs in implementing these development projects.²² According to Beath et al. (2016, p. 8) the program served as an “implicit state-building function in establishing the government as a benevolent provider of public goods and services.” The extent to which CDCs complement (or substitute) traditional shuras differs across districts and time and the success depends on how they can cooperate with the traditional institutions. While in 2005 in Nangahar one member states that “CDCs are different from other shuras or jirgas in that they plan and organize development projects” (Nixon, 2008), it has also been stated that they are involved in dispute resolution. However, in communities where a traditional shura exists, the CDCs engaged in dispute-solving mostly in collaboration with them (Nixon, 2008). Still, problems of opposition from the traditional shura or powerful individuals have been reported (Asia Foundation, 2007). Unfortunately, I have information on the villages that participated in the program only for the wave in 2005, where households have been asked whether there exists a CDC in their community and whether they participated in it.

As a second source for household level data, I rely on the Survey of the Afghan People conducted by the Asia Foundation (AF), which is another nationally-representative household survey. Given that this dataset is only available from 2007 onward, I can only use it for the panel analysis and not for the regression discontinuity design (RDD), as the discontinuity is based on a policy change, which leaves no treatment variation for the years covered by the survey. Yet, the survey is useful as it includes information on trust and confidence in the community councils (shura), from which I construct to further proxies of social cohesion, i.e. *Trust in Council* and *Confidence in Council*. It allows me to validate my results based on the NRVA survey.

Regional level. The main variable of interest, *ISAF* presence, is proxied by three different indicators. First, I exploit the stage-wise enlargement of the mandate as illustrated in Figure 3 and create an indicator variable for districts that fall within the north of the country (stage 1). Second, I construct a binary variable indicating whether a Provincial Reconstruction Team (PRT) is located in district i or in its neighboring districts. PRTs are “small teams of military and civilian personnel working in Afghanistan’s provinces to provide security for aid works and help humanitarian assistance or reconstruction tasks in areas with ongoing conflict or high levels of insecurity.”²³ Both measures come at the cost that they do not vary after 2006, with one exception of the creation of a PRT in 2010. I account for this by focusing on the cross-section for the year 2005 in two of the three estimation strategies. In the panel

²²See e.g., <http://www.afghanwarnews.info/development/NSP.htm> for more details, accessed 22.06.2018.

²³Source: <https://www.nato.int/docu/review/2007/issue3/english/art2.html>, accessed April 1, 2018. Depending on the lead nation, PRTs differ in size, structure and guidance.

fixed-effects regression, the variation comes only from switches between the first and second survey wave (2005 and 2007/08) within those districts, where ISAF has been deployed to.²⁴ While being under NATO's (ISAF's) authority, the aim of the 26 joint civil-military units goes beyond the military domain. They provide support for local partners and ministries in governance issues and according to Nato (2008) take part in meetings of community councils (shuras). Since PRTs include a military component and are often even placed within military bases of the respective ISAF lead nation, I use them as another proxy for the presence of foreign military personnel.²⁵ One of the most common criticisms is in fact that their civilian personnel appears in the same uniform as the military personnel and thus it is impossible to distinguish between the different purposes.²⁶ Third, I follow [Sexton \(2016\)](#) and [Hirose et al. \(2017\)](#) and use the presence of a military base in a district as an alternative measure, which varies over time.²⁷ In analogy to the presence of a PRT, I construct a binary variable indicating whether there is at least one military base in district i or in any of its neighboring districts.²⁸ More information on ISAF's involvement in Afghanistan is provided in [Appendix B](#).

Since the level of contestation is one of the most obvious confounding factors in the analysis of how the presence of security interventions affect community cohesion, I proxy for contested territory by using data on conflict. Besides, I am interested in heterogeneous effects given the level of contestation. I measure contestation based on three different data sources. UCDP/GED provides geocoded data on battle-related deaths derived from media reports ([Sundberg and Melander, 2013](#)). For Afghanistan and the period of observation, these events either cover two-sided violence between Taliban and government forces or one-sided violence committed by the Taliban against civilians. However, about 95% of the events within the 2005-2014 period are classified as fighting between pro-government forces and the Taliban. I, therefore, refer to *Contestation* as it is likely that in districts where the two groups are fighting, they fight for control. Given the concerns raised with media-based conflict data as discussed in [Weidmann \(2014\)](#) and [Weidmann \(2016\)](#), I also rely on conflict events recorded by international forces, secured by [Shaver and Wright \(2016\)](#). This dataset covers significant activities (SIGACTS), classified into three types of events, direct and indirect fire attack (DF and IDF), and improvised explosive device (IED).²⁹ While direct fire attacks are close combat events

²⁴For robustness, I run the same regressions but replace district with province-fixed effects and allow for a comparison within provinces between districts that are characterized by a PRT and those that are not.

²⁵[Eronen \(2008\)](#) states that on average civilians represent only 5% of the personnel in PRTs.

²⁶"NGOs have been hesitant to work with the PRTs and have called for their roles to be clarified." ([Asia Foundation, 2007](#), p. 30)

²⁷Note that this measure is not complete, since exact geographic locations of most bases are kept secret. I thus focus on the data of large military bases as collected and described in [Gehring et al. \(2018\)](#).

²⁸For robustness, I restrict the indicator variable on the presence of the district only, respectively for the presence of a military base and a PRT.

²⁹Note that the SIGACTS version I use does not allow to distinguish between the conflict sides as

characterized by the use of weapons as small arms or rocket-propelled grenades, indirect fire attacks can be launched from great distances and because of that are also likely to be less precise. The latter includes mortars and rockets and can be heard within a quite large surrounding, thus creating broader attention. Whereas the first two types involve fighters, improvised explosive devices are associated with less risk for the perpetrators. They are often placed around roads and directed against moving targets, for instance pro-government convoys.³⁰

Besides these objective conflict measures, I use information at the household level on insecurity shocks and also aggregate this to shares of households affected at the district-level.³¹

Further variables. I control for *Nightlight*, the Vegetation Health Index (*VHI*) and *Aid* at the district-level. Nightlight is used to proxy for district-level GDP, which has become the standard approach if district-level GDP is not available (Henderson et al., 2012). This also proxys for population and the access to markets and infrastructure which is a relevant factor for the neediness of community support. I use the Vegetation Health Index (*VHI*) provided by the FAO as an objective indicator of climatic shocks as it measures droughts. Besides this, to proxy for the presence of foreign civilian personnel apart from the National Solidarity Program that introduced the CDCs, I include geocoded development aid (*Aid*) provided by AidData at the yearly level.³²

4. Identification strategy

A. Estimation strategy 1: Panel regression

I consider the household-level as the main level of analysis for the three different estimation techniques that I present in the following.³³ Since households are not being tracked over the three survey waves I apply a quasi-panel structure at the household-

it covers the total events per district-year for each of the three types. To get information on Western casualties from hostile encounters involving Western ISAF forces or U.S. forces in Operation Enduring Freedom I also refer to data from iCasualties.org (2016). Anecdotal evidence suggests that Taliban often hits Western soldiers on their daily ways to and from the military bases. One could therefore also use it to proxy the presence of Western forces. The correlation between the two variables is, however, only 0.2. This could also be driven by the availability of the casualty numbers at the province-level only. iCasualties.org provides some information on more precise locations, though this covers only a small subset of events, which I regard as too incomplete to exploit the variation at the district-level.

³⁰These definitions follow Eynde et al. (2017) and Sonin et al. (2017).

³¹Averages of the objective and subjective conflict measures are presented in Appendix F. This comparison also serves as a verification of the conflict data that I apply. As can be seen, both objective and subjective conflict indicators are quite highly correlated.

³²For cross-sectional analyses of the 2005 wave I include whether there is a CDC in the community as provided by the household survey.

³³I apply Linear Probability Models (LPM) in all regressions.

level following [Ciarli et al. \(2015\)](#).³⁴ I pool the independent cross sections and account for time- and district-fixed effects. The basic empirical panel data model is the following:

$$CC_{i,d,t} = \beta ISAF_{d,t} + \theta c_{d,t-1} + \mathbf{X}'_{d,t-1} \boldsymbol{\gamma} + \mathbf{H}'_{i,d,t} \boldsymbol{\mu} + \tau_t + \delta_d + \epsilon_{i,d,t}. \quad (1)$$

$CC_{i,d,t}$ represents one of the measures for community cohesion of household i in district d in year t from the NRVA survey or the Survey of the Afghan people.³⁵ $ISAF_{d,t}$ is an indicator of whether ISAF is present in the district, measured by the mandate enlargement, the presence of PRTs or military bases. The variable $c_{d,t-1}$ captures the degree of contestation in the previous year. Whether the region is contested is measured by the number of battle-related deaths (in logarithms) from UCDP. For robustness, I replace this measure with the three different attack types, DF, IDF, and IED from SIGACTS ([Shaver and Wright, 2016](#)). $\mathbf{X}_{d,t-1}$ is a vector of predetermined district-level control variables including aid, VHI, and nightlight. $\mathbf{H}_{i,d,t}$ is a vector of household-level covariates. Due to the structure of the survey, I cannot apply pre-determined household specific characteristics. I, therefore, follow [Chauvet and Ehrhart \(2015\)](#) and aggregate each household control over all households at the district-level and exclude household i . These variables include household living standards measured by household food consumption, whether households earn income from agricultural work, receive remittances, and whether they have taken a loan. The latter is of particular importance as to proxy for the need to rely on community support. Following [Dell et al. \(2017\)](#) I also account for household characteristics as age and sex of household head, number of all household members and number of children living in the household. As some of these variables could be transmission channels and therefore bad controls, their inclusion can cause a bias of the estimates of interest. I therefore consider results without household-specific control variables and rather rely only on pre-determined district-level control variables in $t - 1$ and fixed effects.³⁶

τ_t and δ_d are time- and district-fixed effects. They are important to the extent that I must control for the need to rely on the community. Due to the lack of data on institutions, district- and year-fixed effects allow to control for some part of that variation. District-fixed effects account for instance for the distance to major cities, which is used as a proxy for the presence or legitimacy of central government institutions (see e.g., [Lind et al., 2014](#)). Using this strategy allows me to rule out some part of the omitted variable bias.

³⁴In all regressions I include household survey weights to ensure results to be representative for the Afghan population.

³⁵In the latter case I do not control for $\mathbf{H}_{i,d,t}$ as the survey does not provide comparable questions to the NRVA. Note that for robustness, I exclude this set of controls also for regressions using the NRVA data.

³⁶Despite being a potential bad control I include whether households in a district - apart from household i - have taken a loan to proxy for the need to rely on help from others. I do, however, also run regressions without any covariates for robustness.

However, I cannot claim causality.

B. Estimation strategy 2: Interaction with exogenous shocks

In a second step, I consider the interaction between $ISAF_d$ (and c_d) with an exogenous shock as shown in equation 2:

$$CC_{i,d} = \beta S_{i,d} * ISAF_d + \alpha S_{i,d} * c_d + \eta S_{i,d} + \omega ISAF_d + \mathbf{X}'_d \boldsymbol{\gamma} + \mathbf{H}'_{i,d} \boldsymbol{\mu} + \epsilon_{i,d}. \quad (2)$$

$S_{i,d}$ measures the exogenous income shock that varies at the household-level, which is a combination of different climatic shocks.³⁷ Roughly 70% of the Afghan population receive at least some part of their income from agricultural activities. Climatic shocks thus represent a major threat to household income, especially in rural areas.³⁸ Given that these exogenous income shocks increase the need to rely on support from either formal or informal institutions, I exploit this variation to consider heterogeneous effects depending on the presence of ISAF and the degree of contestation. $ISAF_d$ and c_d are defined as in equation 1. As discussed before $ISAF_d$ can lead to heterogeneous effects that can be further amplified by the level of conflict in a district. I therefore also consider the triple interaction $S_{i,d} * c_d * ISAF_d$.³⁹ I restrict my analysis to the year 2005, as this survey wave includes most information on community cohesion and I can exploit the boundary between the northern command and the rest of the country as I will do in the regression discontinuity.⁴⁰

I control for the same set of variables as in equation 1 and again cluster at the district-level. Given that I am interested in the interaction term with the exogenous income shock, these controls should not alter the results of the coefficients of the interaction. This estimation technique comes at the cost that only the interaction term can be considered exogenous and one cannot deduce the effect of ISAF presence independently from the shock. This leads over to the third estimation technique, which I will present in the following.

³⁷It is a binary indicator variable taking on the value of one if the household has been hit by one of the following climatic shocks: Earthquakes, landslides/avalanches, flooding, late damaging frosts, heavy rains preventing work, severe winter conditions, hailstorms. I define this variable in more detail in Appendix [Appendix C](#).

³⁸In the three waves of the NRVA this share varies between 60 and 80% for rural households and between 50 and 65% for all households.

³⁹When including the triple interaction I take account of all the levels and the interaction of the different pairs of the levels, respectively.

⁴⁰With more than 200,000 individuals the NRVA 2005 was the largest household survey that has ever been carried out in Afghanistan (MRRD and CSO, 2007).

C. Estimation strategy 3: Geographic regression discontinuity

The third technique follows the approach by [Card and Krueger \(1994\)](#), [Dell \(2010\)](#) and [Dell et al. \(2017\)](#). I exploit a geographic boundary as a regression discontinuity. The main assumption is that a geographic or administrative boundary assigns households to a treated and control area “in an as-if random fashion” ([Keele et al., 2015](#), p. 127).

I exploit the sequential enlargement of ISAF’s mandate as envisaged by the Bonn Agreement, first to the north of the country (including 9 out of 34 provinces) and later to the remaining country. After NATO took command of ISAF in August 2003, the UNSC Resolution 1510 on October 13 in 2003 announced the enlargement of ISAF’s mandate to the north to support the government beyond the capital Kabul. As shown in [Figure 3](#) and discussed in more detail in [Appendix B](#), the process of taking command over the entire country was split into four stages, with stage 2 to 4 being implemented after the NRVA household survey in 2005 had been conducted. While the decision of starting in the north has likely not happened at random, the provincial borders that form the treatment boundary can be regarded “as-if random” to the extent that they have not been systematically placed according to the level of conflict and social cohesion. Besides this, they are also not overlapping with the homelands of different ethnic groups, which would be a concern since ethnicity is an important determinant of community cooperation (see [Dell et al., 2017](#)). According to [Giustozzi \(2008, p. 21\)](#), “[p]rovincial boundaries were drawn in such a way as to divide communities and create multi-ethnic and multi-tribal administrative units.” Additionally, the timing of the subsequent stages can be regarded as random, since “[t]here is unlikely to be further expansion of ISAF until more assets are available in country for it, namely, close air support, fixed-wing and rotary-wing lift capability, special forces capability and logistical support” as stated in the report of the secretary-general of the UNSC in December 2003 ([UNSC, 2003](#)).

Yet, there are differences across the northern districts from the rest of the country. The biggest concern would be differences relating to security or territorial control. These factors likely correlate both with the outcome and the placement of the troops. To validate the RD design, three main assumptions have to be fulfilled.

First, the main identifying assumption is that all relevant factors besides ISAF treatment vary smoothly at the treatment boundary, which creates the discontinuity in the treatment of interest. While it is very likely that many factors are not balanced across all northern districts as compared to all remaining districts of the country, I can show that households close to the border (within a bandwidth of 50km) can indeed be regarded as very comparable (according to a large set of observable factors). I will discuss this in more detail when I present balancing tests in [Section 5 C](#).

Second, one has to rely on the assumption that the province borders are relevant to the treatment of interest. According to [Eynde et al. \(2017\)](#), administrative borders

in Afghanistan are relevant for the security provision and insurgency. ISAF is split into broad regional commands (North, South, East, West), which are again split into commands of the different NATO and partner nations. Forces of one nation did not cross regional commands of others – with few exceptions as for instance in case of consultations of the lead personnel – because of their own risk and for not getting into the responsibilities of other lead nations.⁴¹ At the same time administrative boundaries, while being relevant for the treatment, might come along with other compound treatments (as discussed in [Keele and Titiunik, 2015](#)). Given that my baseline geographic regression discontinuity (GRD) results rely on households from 66 districts from 14 provinces it seems rather unlikely that in all these political units reforms took place at the same time, which furthermore coincide with the timing of the mandate expansion. For robustness, I exclude 100km-segments (covering treated and non-treated) of the boundary at the time so that results can not be driven by a single area where a potential compound treatment could actually explain the discontinuity. To the extent that potential but *irrelevant* (in that regard that they are not of interest to this analysis) treatments occur in both periods, before and after the *relevant* treatment, balancing tests for the pretreatment period allow to infer whether these *irrelevant* treatments cause a potential bias. As stated before, ISAF gets involved in the reconstruction, for instance, through PRT or NSP projects. While I can control for aid in and show that general aid is not distributed differently across the treatment boundary, my treatment effect can still result from a combined treatment of the presence of military personnel and related aid. In [Section 6](#), I have a closer look on how aid and military presence relate to each other. As I cannot prove the *Compound Treatment Irrelevance* assumption, I have to rely as well on inferences from the two alternative identification strategies presented in the previous two subsections.

Third, one has to rule out selective sorting. Taliban insurgents could for instance move across the border as a response to the deployment of ISAF forces to the north. If this was the case, one would assume that along with the insurgent relocation, violent attacks would be relocated. If this affected community cohesion, we would misinterpret the treatment effect to the extent that changes in community cohesion would stem from shifts in conflict rather than because of the presence of foreign military forces. To rule out that the results are driven by relocation of insurgency, I replace the outcomes of community cohesion with different measures of conflict relying on both on measures from UCDP/GED and SIGACTS for the year 2005. I will test and discuss the validity of these assumptions in detail in [Section 5 C](#).

I am restricted to the cross-section of the NRVA survey wave in 2005 as the next wave of the household survey (2007/08) took place right after the mandate had been expanded to the entire country. There would be no differential treatment assignment left. The

⁴¹According to [Eynde et al. \(2017, p. 16\)](#) “ISAF forces were also constrained by district boundaries.”

estimation equation for the regression discontinuity is the following:

$$CC_{i,v,d} = \alpha + \beta treat_d + f(geo\ location_v) + \mathbf{X}'_d \boldsymbol{\gamma} + \mathbf{H}'_{i,v,d} \boldsymbol{\mu} + \sum_{s=1}^n seg_v^s + \epsilon_{i,v,d}. \quad (3)$$

$CC_{i,v,d}$ measures community cohesion of household i living in village v of district d . $treat_d$ takes a value of one if the district is in one of the northern provinces, i.e. where ISAF has been present at the latest since the end of 2004. $f(geo\ location_v)$ is the RD polynomial, which takes on different functions of the geographic location of household i in village v . For the 2005 survey, I was able to get information on longitude and latitude at the village-level.⁴² I assign all households in the same village to the same linear distance.⁴³ Following [Gelman and Imbens \(2017\)](#), I use local linear (and quadratic) RD polynomials rather than polynomials of higher order and limit the analysis to households located within different bandwidths of the boundary (50km, 75km, 100km).⁴⁴ While the boundary forms a multi-dimensional discontinuity in longitude and latitude, I also apply a one-dimensional forcing variable, which is defined as the linear distance between the border and the household's village. In [Appendix E](#) I restrict the analysis to households in districts that are direct neighbors with respect to the border rather than taking all households of villages that fall within the different bandwidths.⁴⁵ Following [Dell \(2010\)](#) and [Dell et al. \(2017\)](#), I include border segment fixed effects seg_d^s . They split the entire border into equally sized segments and take on a value of one if the village is closest to segment s and zero otherwise. I apply segments of 100 and 200km. This allows comparing households in treated and control groups within the same segment of the border. [Figure 1](#) shows where the boundary is located along with the 200km segments and the three different bandwidths. The figure also highlights districts that are not included in the 2005 survey wave, as shaded by the grey dotted areas.⁴⁶

Since households in the Kabul province fall within the larger bandwidths and ISAF has been present there since 2001, I present results for a restricted sample where I exclude Kabul. For robustness, I also exclude households in a few more areas where Western

⁴²I don't have geocoded data on the location of the villages for the subsequent surveys.

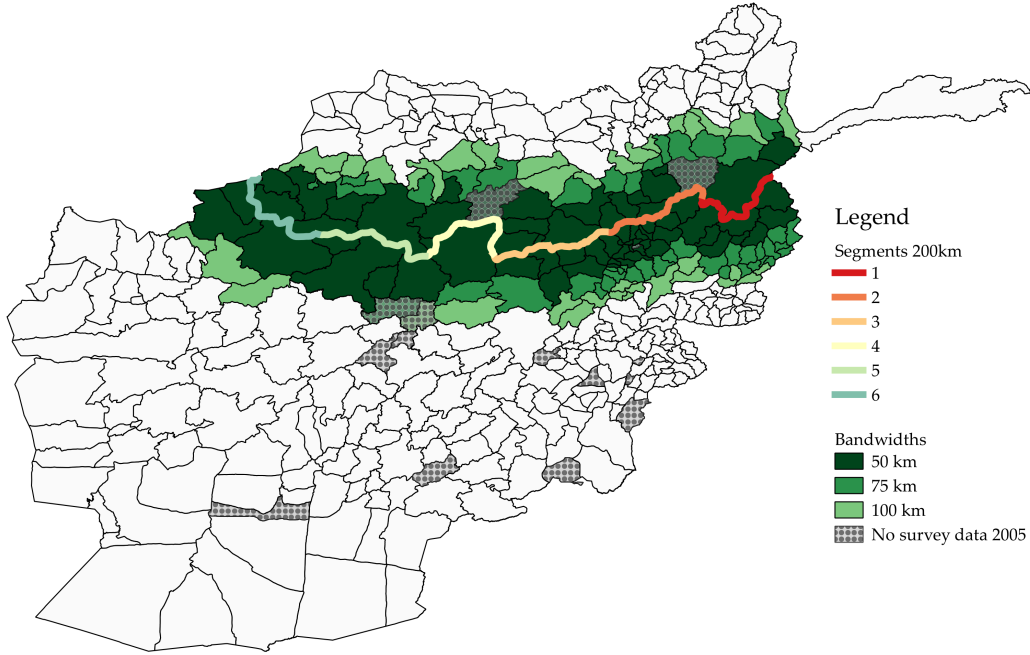
⁴³Having information on the more precise locations of households at the village- rather than the district-level only allows for a much higher number of mass points (see for discussion [Cattaneo et al., 2017](#)).

⁴⁴Since I account for household survey weights, I do not account for triangular or epanechnikov kernel weights. Effectively, I apply a uniform kernel. This choice seems reasonable given that I use a local linear estimation within specific bandwidths. According to ([Cattaneo et al., 2017](#), p. 50) “[e]mploying a local linear estimation with bandwidth h and the uniform kernel is therefore equivalent to estimating a simple linear regression without weights using only observations whose distance from the cutoff is at most h .” As compared to a global RD, I do not include households far away from the boundary and thus need no differential weighting of the observations according to their distance, since all are relatively close. For robustness I disregard household survey weights ([Appendix E](#), [Table 24](#)).

⁴⁵Note that for robustness I also include the interaction of the RD polynomial with the treatment, which allows for different slopes at both sides of the boundary (see [Appendix E](#)).

⁴⁶In [Appendix F](#) I show that these missing districts are not particularly prone to conflict.

FIGURE 1
Boundary, segments and bandwidths



Notes: The boundary splits the country into the northern command (treated), where ISAF's mandate has been extended to in December 2003 (completed end of 2004) and the rest of the country (control), where ISAF has been deployed to after the 2005 survey has been conducted. Highlighted are the six boundary segments à 200km, the three groups of bandwidths and the districts for which there is no survey data available in the 2005 survey wave.

forces have been present prior to the official mandate enlargement according to anecdotal evidence (Eronen, 2008).⁴⁷ This could flaw my results as I want to identify the effect of the presence of foreign military forces.⁴⁸ X_d and $H_{i,d}$ are again vectors of pre-determined district-level control variables and household-level control variables (district-level mean of all households in district d apart from household i). Standard errors are clustered at the district-level in the baseline regressions.⁴⁹

⁴⁷I describe this in more detail in [Appendix B](#).

⁴⁸I cannot rule out that military forces have been present in some areas for which I don't have data for, though in these cases, if it is not in the form of a permanent base or PRT, I would not expect strong effects on community cohesion. Furthermore I exclude segments of the boundary at the time for robustness.

⁴⁹For robustness I also cluster at the village- and province-level and apply Conley spatial HAC standard errors (see [Appendix E](#)).

5. Main results

A. Results 1: Panel regressions

I now turn to the regression results, starting with the baseline panel regressions. Column (1) to (3) of [Table 1](#) present results for the two NRVA waves (2005 and 2007/08) and column (4) to (6) for all three NRVA waves until 2012. I define ISAF presence according to three variables, *Mandate* (enlargement), *PRT* and military *Base*. After the end of 2006, all stages of the mandate enlargement have been completed. Thus, the variable *Mandate* takes a value of one for all observations after 2006. On the contrary, the presence of a military *Base* still varies over time. With regard to the PRTs, only one PRT has been established later than 2006, which is under the command of Turkey in the district Shibirghan of province Jawzjan. When interpreting results based on the presence of PRTs, one has to keep in mind that it captures basically no variation after 2006 as it is the case for the variable *Mandate*. Thus, results are driven by switches in ISAF presence in the earlier years of the panel.⁵⁰ This is one reason why I restrict the analysis to the two waves of the NRVA in columns (1) to (3). The second reason is that starting from 2011, the transition from ISAF command to Afghan forces began (see for more details [Appendix B](#) and [Figure 4](#)). I account for this by excluding the tranches which have first been part of the transition process in columns (4) to (6).

TABLE 1
Panel results - Community Help (2005-2008 and 2005-2012)

	2005-2008			2005-2012		
	Mandate	PRT	Base	Mandate	PRT	Base
	(1)	(2)	(3)	(4)	(5)	(6)
ISAF	-0.094*** (0.034)	-0.066** (0.027)	-0.040* (0.023)	-0.068** (0.029)	-0.055** (0.027)	-0.016 (0.026)
Contestation (t-1)	-0.026*** (0.008)	-0.028*** (0.009)	-0.034*** (0.008)	-0.025*** (0.007)	-0.026*** (0.007)	-0.029*** (0.007)
Observations	50123	50123	50123	55865	55865	55865
Adj. R-squared	0.301	0.300	0.299	0.294	0.294	0.293
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
District, Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is community cohesion measured by Community Help. ISAF presence is defined according to the column heading. All regressions include district- and year-fixed effects. The set of control variables includes aid (t-1), nightlight (t-1) and VHI (t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

⁵⁰For robustness of the PRT measure I run the same regressions but exchange district-fixed effects with province-fixed effects to allow for a comparison across districts but within provinces. Results are reported in [Table 14](#) and support the negative finding of the presence of a PRT on community cohesion.

The degree of *Contestation* is measured by the predetermined number of battle-related deaths from UCDP/GED. In [Appendix E, Table 15](#), I exchange this measure with the three different types of attacks from SIGACTS. In all specifications, I find a negative relation of ISAF presence and the likelihood that a household receives help from the community. The coefficient turns insignificant for military bases in column (6). I also find a clear negative relation of pre-determined contestation and community cohesion, which increases in coefficient size and significance when not including the indicators for ISAF presence. To the extent that fighting between Western forces and insurgents occurs where Western forces are present – either permanently or occasionally – the negative coefficients point to the same inference as it is the case for the different measures of *ISAF* presence. Interestingly, the unconditional correlation of *Contestation* with *Mandate* and *PRT* is only around 0.2 but close to 0.5 for military *Base*.⁵¹ Results are robust to not including any covariates or to increasing the list of covariates as presented in [Appendix E, Table 12](#).

[Table 2](#) turns to measures of trust and confidence in community councils (shura). Such information is not available in the NRVA survey. I, therefore, rely on the Survey of the Afghan People conducted by the Asia Foundation. Again, households are not being tracked and I apply a quasi-panel. However, the data only begins in 2007. In this setting, I define ISAF presence according to the existence of a military *Base* rather than by the mandate enlargement or the presence of a PRT, as there is no variation left in the 2007-2014 period and district-fixed effects would capture the entire variation.⁵² Columns (1) and (3) present results for the full dataset and columns (2) and (4) account for the transition of ISAF to the local Army, which started in 2011. The restricted sample therefore excludes all districts where the transition from ISAF to local forces has already taken place. As it is not clear whether one should expect different effects of the presence of Afghan forces as compared to foreign forces, I present results for both samples.

In line with results presented in [Table 1](#), the presence of a Military *Base* is negatively associated with community cohesion, measured by confidence and trust in community councils. The coefficient estimates are smaller and less significant when including districts, where ISAF has passed the command to the Afghan Army (see columns 1 and 3). This might suggest that the level of community cohesion recovers after ISAF forces withdraw from the district and that the Afghan lead is not as harmful for community cohesion as compared to the lead by foreign troops.⁵³

⁵¹Despite multicollinearity concerns, I present results including both ISAF presence and *Contestation*, since contestation is the most obvious confounding factor and its exclusion would likely cause an omitted variable bias. Notwithstanding, [Appendix E](#) shows results when excluding contestation.

⁵²District-fixed effects would capture the entire variation in PRTs apart from the single PRT in the district Shibirghan, that was installed in 2010. In particular, since PRTs differ a lot with respect to the lead nation, I do not want to deduce general effects from this single variation after 2006 in the measure based on PRT presence.

⁵³The result is robust to including province-times-year-fixed effects as presented in [Appendix E](#),

TABLE 2
Panel results - Trust and Confidence in Councils (2007-2014)

	Confidence		Trust	
	(1)	(2)	(3)	(4)
ISAF	-0.059 (0.047)	-0.130* (0.076)	-0.097*** (0.024)	-0.177*** (0.046)
Contestation	0.001 (0.002)	-0.001 (0.003)	0.001 (0.002)	0.002 (0.003)
Observations	56664	28940	48998	29427
Adj. R-squared	0.046	0.058	0.063	0.070
Control variables	Yes	Yes	Yes	Yes
District, Year FE	Yes	Yes	Yes	Yes
Restricted sample	No	Yes	No	Yes

Notes: The dependent variable is indicated in the column heading. ISAF presence is defined according to the presence of a military base. All regressions include district- and year-fixed effects. The set of control variables includes aid (t-1), nightlight (t-1) and VHI (t-1). Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

Despite controlling for different fixed effects and pre-determined control variables, the coefficient estimates presented in this section can, however, not be interpreted as causal.

B. Results 2: Interaction with exogenous shocks

In order to get closer to measuring causal effects, I consider heterogeneous effects of short-term income shocks depending on whether ISAF is present or not. I exploit variation induced by climatic shocks, which present a common threat as the majority of households derive income from agricultural activities. While I cannot infer the direct effect of foreign security missions on community cohesion from these results, this empirical strategy allows me to interpret the coefficient estimates of the interaction with the shock as exogenous. This is because I control for the endogenous level of the interaction term (ISAF presence) (see e.g., [Nizalova and Murtazashvili, 2016](#); [Bun and Harrison, 2018](#)).

I do this in tandem with analyzing heterogeneous effects of negative income shocks according to the district's intensity of conflict. Ignoring the degree of contestation could again confound my results. I restrict this analysis to the cross-section of 2005 for three reasons. First, it is the most detailed wave with respect to variables that proxy community cohesion. Second, this wave is characterized by the most significant variation of the main variable of interest across space. Third, I can only apply the GRD for this wave and I want to allow for a comparison of the results between these two techniques that get more closely to causal analyses.

[Table 3](#) shows the results for the cross-section of 2005 with the three different measures

[Table 13.](#)

TABLE 3
Climatic shocks - heterogeneous effects (2005)

	ISAF Mandate		PRT		Military Base	
	(1)	(2)	(3)	(4)	(5)	(6)
Shock (t-1)	0.120*** (0.029)	0.067*** (0.025)	0.120*** (0.029)	0.067*** (0.024)	0.094*** (0.027)	0.066*** (0.024)
Shock*Contestation (t-1)	0.009 (0.007)	0.003 (0.006)	0.010 (0.007)	0.002 (0.006)	0.005 (0.006)	0.001 (0.005)
Shock*ISAF (t-1)	0.003 (0.019)	0.025 (0.021)	0.016 (0.023)	0.037 (0.030)	0.058* (0.032)	0.008 (0.023)
Observations	30916	28346	30916	28346	30916	28346
Adj. R-squared	0.046	0.184	0.046	0.185	0.048	0.184
Control variables	No	Yes	No	Yes	No	Yes
Jointly Significant	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is community cohesion measured by Community Help. Contestation is measured by the number of battle-related deaths. The even numbered column numbers include the controls hh food insecurity, hh agricultural income, hh remittances, hh loan and district-fixed effects. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

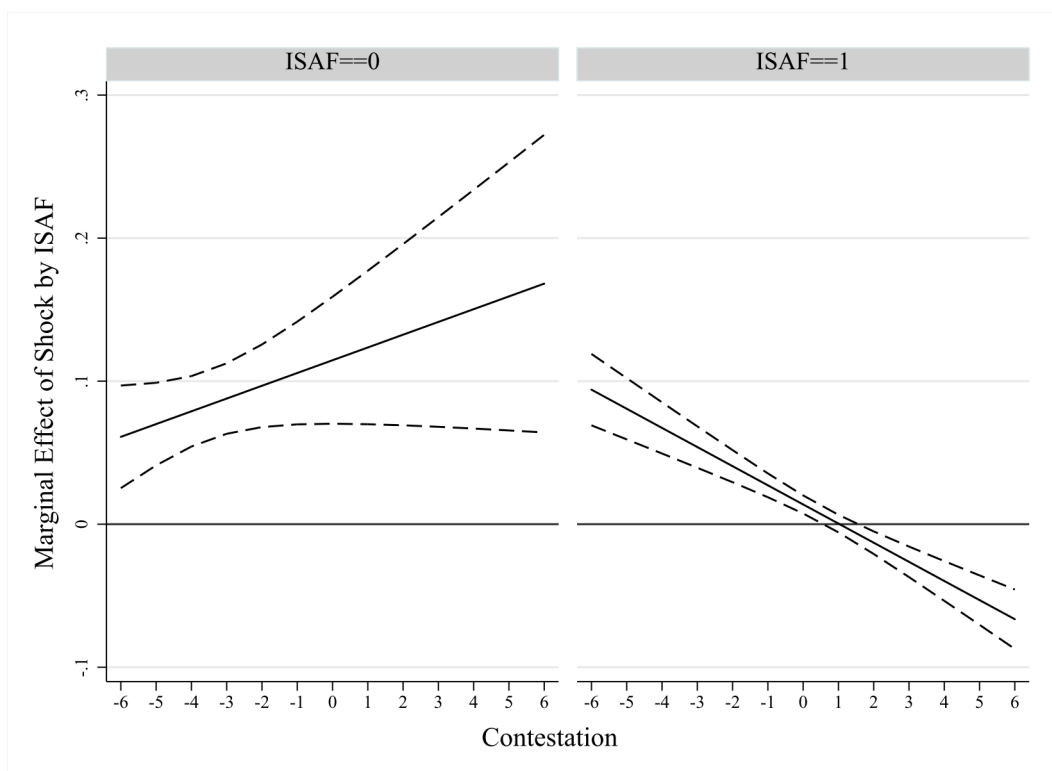
of ISAF presence excluding the triple interaction. While no interaction term turns out to be significant on its own, they are all jointly significant. Given that all interaction terms are positive, this result indicates that climatic shocks lead to more community cohesion, irrespective of the level of contestation and the presence of ISAF. However, the results do not allow to interpret whether ISAF on its own is increasing or decreasing community cohesion.

In a second step, I consider the triple interaction of the shock, contestation and ISAF presence. This choice is motivated by the theoretical considerations outlined in [Section 2](#). The influence of ISAF presence likely depends on the level of contestation. For the ease of interpretation, I show plots rather than regression results. [Figure 2](#) presents marginal effects of the exogenous shock given the level of contestation. The left graph presents the marginal effect for districts where ISAF has not yet been present and the right graph for districts in the north where ISAF's mandate has been extended to before 2005. The positive effect of the income shock on community cohesion in areas without ISAF presence is increasing in the intensity of contestation, being significant irrespective of the level of contestation. On the other hand, in the north of the country, the interaction effect points in the opposite direction. With a higher intensity of contestation, it becomes less likely that households can rely on help from others in their community given that ISAF is present. In [Appendix E](#), I show that this opposing effect due to the presence of ISAF is robust to replacing the dependent variable with *Community Help+Loan*.⁵⁴ I also

⁵⁴For the alternative measure *Community Help+Loan*, the left graph points to no significant interaction effect given ISAF is not present. When ISAF is present, the interaction is very comparable

show regression results for the triple interaction for the different measures of contestation (Table 16). This result is in line with the negative findings of ISAF presence on community cohesion in the panel regressions (see Section 5A). While the left graph is in line with the summary drawn by Bauer et al. (2016) that violence induces cooperation, this must not be the true in case of a foreign military intervention as can be seen in the right graph.

FIGURE 2
Marginal effect of *Climatic Shocks* as *Contestation* changes (2005)



Notes: The figure presents results for one regression with the triple interaction of shock, contestation and ISAF presence. Contestation is measured by the logarithm of battle-related deaths and ISAF presence by the mandate enlargement to the north. Shock is the indicator variable of whether a household has been exposed to a negative climatic shock. Marginal effects are plotted along with 90% confidence intervals.

to what is plotted in Figure 2. There is no significant triple interaction effect for *Council Member*.

C. Results 3: Geographic regression discontinuity

Before turning to the treatment effect of ISAF’s mandate enlargement, I assess the plausibility of the identifying assumptions of the GRD. The main identifying assumption is that all relevant factors besides ISAF treatment vary smoothly at the boundary. To test this, I regress pre-determined household-level variables, pre-determined district-level time-varying variables and district-level time-invariant variables on the treatment.⁵⁵ I do not rely on simple mean comparisons for treatment and control group as the geographic heterogeneity in this RDD requires a different strategy (see e.g., [Keele and Titiunik, 2015](#); [Dell et al., 2017](#)). This is due to the fact that the balance is likely to change as one moves along the boundary. I therefore apply the local linear estimation as described in equation 3 by using pretreatment and time-invariant (geographic) characteristics as the outcome variables. Results are presented in [Table 4](#) in Panel A-E with a bandwidth of 50km, which represents the baseline bandwidth as I will discuss in the following. While all regressions include segment fixed effects, I ignore control variables since some of those are the outcome variable in the balancing test. Given that Western forces have been temporarily present before 2003 in some of the districts, as most obviously (and in this case even permanently) in Kabul, I consider the *restricted sample*.

It is reassuring to see that variables at the household- and district-level all show no significant differences according to the treatment. According to [Table 4](#), households in districts close to the boundary thus seem comparable according to the available set of observable factors. In [Appendix E](#), I report balancing tests at the district- rather than the household-level since many of these factors vary only at the district-level. I also report more detailed balancing tests on the main outcome variable *Community Help* for 2003 across different bandwidths. These can be regarded as placebo tests given that in 2003 there was not yet such a treatment boundary according to the mandate enlargement.⁵⁶ All results support the fact that these factors vary smoothly at the treatment boundary.

⁵⁵While the 2003 NRVA survey serves well for balancing tests, I do not include it in the panel regressions or apply a diff-in-diff as the survey design and structure differ too much from the subsequent NRVA surveys. Nonetheless, the 2003 data is the best I can find to run balancing tests on pretreatment variables at the household level to assure that the two groups of treated and control are comparable. As for the 2005 wave I have the information on village level longitude and latitude.

⁵⁶However, as discussed before in some areas there is evidence of the presence of international forces at the time of the NRVA 2003 survey. Ideally, I would have survey data from before 2001.

TABLE 4
Regression discontinuity: Balancing tests

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Conflict (2002)						
	Insecurity		log	Fire		IED
	HH	District	BRD	Direct	Indirect	Attack
ISAF treat	-0.038 (0.027)	-0.081 (0.129)	0.243 (0.365)	-0.011 (0.013)	0.259 (0.252)	0.170 (0.154)
Observations	1540	1630	1630	1630	1630	1630
Adj. R-squared	0.007	0.284	0.278	0.094	0.110	0.127
Panel B: Government/Western forces/NGOs (2002/03)						
	Military	Employed by		Development Aid		
	Bases	Military	State/NGO	WB	AFG	WB
ISAF treat	0.773 (0.702)	0.010 (0.011)	-0.005 (0.020)	0.222 (1.249)	-0.131 (0.125)	-0.002 (0.002)
Observations	1630	1630	1630	1630	1630	536
Adj. R-squared	0.127	0.010	0.015	0.339	0.072	0.567
Panel C: Geography and territory						
	Rugged- ness	Wheat Suit.	Opium Revenue	Travel Time	Share Rural	Territory Control
ISAF treat	-118.580 (125.470)	0.130 (0.130)	1019.175 (631.327)	123.975 (188.044)	-0.003 (0.020)	-0.597 (0.386)
Observations	1630	1630	1630	1630	1630	1630
Adj. R-squared	0.500	0.275	0.376	0.314	0.090	0.763
Panel D: Ethnicity and household size (2003)						
	Pashtuns	No. Ethnic Groups	Native Language		HH	
			Dari	Pashto	Uzbeki	Members
ISAF treat	0.343 (0.262)	0.528 (0.518)	-0.030 (0.145)	-0.200 (0.221)	0.202 (0.497)	0.074 (0.562)
Observations	1630	1630	1355	781	492	1630
Adj. R-squared	0.332	0.347	0.612	0.818	0.598	0.035
Panel E: Further variables (2002/03)						
	VHI	Shock Climate	Any	Popu- lation	Nightlight	Wheat Cons.
ISAF treat	4.412 (6.161)	0.034 (0.139)	0.049 (0.108)	14.995 (64.016)	0.048 (0.040)	3.265 (2.599)
Observations	1630	1630	1630	1630	1630	1570
Adj. R-squared	0.302	0.036	0.027	0.333	0.177	0.040
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	No	No	No	No	No	No
Restricted sample	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is indicated in the column heading. 200km segment-fixed effects are included. All regressions are on the restricted sample. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

Another concern of this approach is that there could be selective sorting as discussed in [Section 4](#). Taliban insurgents could for instance move across the boundary as a response to the deployment of ISAF forces to the north. If this were the case, one would assume that along with the insurgent relocation conflict would be relocated. To rule out that the results are driven by the relocation of insurgency, I replace the 2005 outcomes of community cohesion with different measures of conflict at the same time. Results are presented in Panel D of [Table 27 \(Appendix E\)](#). I find no evidence in support of this concern. None of the conflict outcomes are affected by the treatment close to the boundary in the year 2005.

[Table 5](#) turns to the treatment effects on community cohesion in districts close to the boundary. For the purpose of comparison, I first focus on the variable *Community Help*. Panel A to D differ in the way the RD polynomial is specified as indicated in the Panel headings. Results are provided for three different bandwidths, 50km (baseline), 75km and 100km. I chose the optimal bandwidth “in a data-driven, automatic way to avoid specification searching and ad-hoc decisions” ([Cattaneo et al., 2017](#), p. 52).⁵⁷ In all regressions I include border segment-fixed effects in line with [Dell \(2010\)](#) and [Dell et al. \(2017\)](#) and a minimum set of control variables. Results without segment-fixed effects and control variables (or further control variables) are reported in [Table 21 \(Appendix E\)](#). Even columns differ from odd columns to the extent that I exclude households of provinces which have potentially been characterized by the presence of foreign forces before the mandate enlargement has been implemented. The restricted sample most importantly also excludes Kabul province, which differs not only because of the presence of ISAF since 2001. In all four panels the same picture emerges. ISAF presence reduces community cohesion measured by *Community Help*. Coefficient estimates are of comparable size (least comparable for Panel B) and increase in size the smaller the bandwidth. In terms of effect size, households in the treated area are 6 to 11% less likely to receive help from others in their community.

[Table 6](#) presents results for alternative outcome variables *Community Help+Loan* and *Council Member*, with the latter being comprised of membership in the shura (community council) or community development council (CDC). I present results for the most rigorous specification of [Table 5](#) (i.e. controlling for segment-fixed effects, covariates and taking the restricted sample) across the three different bandwidths. For both alternative outcome variables, we see the same direction of the effect, with coefficients being significant for all bandwidths and irrespective of taking a linear polynomial in the distance or in longitude and latitude. The effect on *Community Help+Loan* is higher than on the main outcome variable, which is not surprising as *Community Help+Loan* is comprised of whether the

⁵⁷Due to household survey weights I cannot apply the RDD Stata commands (rdrobust, rdbwselect) for my main regressions, though when ignoring survey weights, rdbwselect determined 40-50km as the optimal bandwidth for the different outcome variables.

TABLE 5
Regression discontinuity: Community Help (2005)

	(1)	(2)	(3)	(4)	(5)	(6)
	Bandwidth 50		Bandwidth 75		Bandwidth 100	
Panel A: Linear polynomial in distance to boundary						
ISAF treat	-0.095**	-0.124**	-0.084**	-0.093**	-0.065*	-0.080**
	(0.044)	(0.051)	(0.042)	(0.044)	(0.035)	(0.036)
Adj. R-squared	0.083	0.098	0.064	0.066	0.058	0.057
Panel B: Linear polynomial in longitude and latitude						
ISAF treat	-0.060**	-0.082***	-0.053**	-0.061**	-0.047*	-0.056**
	(0.023)	(0.027)	(0.027)	(0.029)	(0.027)	(0.028)
Adj. R-squared	0.083	0.095	0.065	0.065	0.058	0.055
Panel C: Quadratic polynomial in distance to boundary						
ISAF treat	-0.094**	-0.122**	-0.087**	-0.094**	-0.062*	-0.079**
	(0.045)	(0.052)	(0.040)	(0.043)	(0.035)	(0.036)
Adj. R-squared	0.083	0.098	0.064	0.066	0.058	0.057
Panel D: Quadratic polynomial in longitude and latitude						
ISAF treat	-0.095**	-0.113**	-0.075**	-0.086**	-0.056*	-0.075**
	(0.043)	(0.045)	(0.037)	(0.038)	(0.033)	(0.034)
Adj. R-squared	0.087	0.099	0.066	0.066	0.060	0.058
Observations	3554	3148	7495	5882	11810	8426
Number of clusters	74	64	120	103	166	144
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Restricted sample	No	Yes	No	Yes	No	Yes

Notes: The dependent variable is Community Help. 200km segment-fixed effects are included. The set of control variables include aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

household has received help from others in the community (*Community Help*) or received loans from family or friends. Households in the north are 20-30% less likely of receiving this type of support. The likelihood that a household is a member in a community council (either in the traditional shuras or the recently emerging CDCs) is also 14 to 26% less as compared to the districts where ISAF has not yet been present.⁵⁸

Results are robust to further alterations of the RD estimation equation (robustness checks are reported in [Appendix E](#)). I first exclude segment-fixed effects and covariates. Second, I apply shorter segments of 100 rather than 200km. Third, I account for a larger set of covariates including household characteristics. Fourth, I define the treatment by the direct neighborhood of a district to the treatment boundary. Fifth, I include the

⁵⁸More detailed results on the different outcomes including alternative specification choices are reported in [Appendix E](#) in Tables 19 and 20.

TABLE 6
Regression discontinuity: Alternative outcomes (2005)

	Community: Help+Loan			Council Member		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Linear polynomial in distance to boundary						
ISAF treat	-0.289*** (0.063)	-0.219*** (0.057)	-0.185*** (0.052)	-0.124 (0.085)	-0.180** (0.072)	-0.164* (0.093)
Adj. R-squared	0.233	0.176	0.157	0.213	0.126	0.073
Panel B: Linear polynomial in longitude and latitude						
ISAF treat	-0.181*** (0.043)	-0.166*** (0.041)	-0.161*** (0.042)	-0.121** (0.059)	-0.142*** (0.052)	-0.112 (0.068)
Adj. R-squared	0.226	0.175	0.157	0.215	0.129	0.072
Observations	3148	5882	8426	3148	5882	8426
Number of clusters	64	103	144	64	103	144
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Restricted sample	Yes	Yes	Yes	Yes	Yes	Yes
Bandwidth	50	75	100	50	75	100

Notes: The dependent variable is Community Help. 200km segment-fixed effects are included. The set of control variables include aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. In the regressions on *Council Member* I additionally control for the presence of a council. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

interaction of the treatment with the forcing variable, which allows for different slopes at both sides of the boundary.⁵⁹ Sixth, as in the two first estimation strategies I account for the pre-determined level of contestation and also interact it with the treatment as presented in Table 22.⁶⁰ Seventh, I cluster standard errors at alternative levels, including a wild-cluster bootstrap approach (Table 23 and Figure 6). Lastly, I apply a jackknife procedure and drop households of both treatment and control group within a boundary segment (Figure 7). Results are robust to any of these choices.

Taken together, the results of the different estimation approaches all point to the same finding. ISAF presence, measured by the enlargement of the mandate to the north, the presence of PRTs or military bases, has a negative effect on different measures of community cohesion. This is in line with anecdotal evidence that ISAF erodes institutions at the local level.

⁵⁹All these alterations are reported in Table 21.

⁶⁰The interaction of contestation with the treatment does not provide evidence for a clear pattern.

6. Potential mechanisms

In this section, I turn to potential mechanisms that help to explain the above finding. Since the GRD gets closest to measuring causal effects, I analyze potential channels by relying on this estimation technique. I replace the dependent variable with a long list of alternative outcome variables in 2005. In [Table 27 \(Appendix E\)](#), I consider four different groups of channels, i) government employment and support (versus informal agricultural activities), ii) increased living standards, iii) provision of aid and infrastructure, and iv) the intensity of conflict. Theoretically, one could argue that improvements in most of these categories render the community support less important. However, the literature has not arrived at a consensus yet on how more formal institutions supplement or complement rather information institutions and how conflict should be affected.

There is hardly any evidence of a treatment effect on the variables presented in Panels A-D. As discussed before, community cohesion does not seem to be affected because of changes in insecurity. I find no robust effect on the different measures of contestation or insecurity in Panel D. The treatment does not turn out to be significant for any of these variables. I also find no evidence for a positive effect on households relying on the state as a coping strategy, which I proxy by either worked on relief programs from Government/NGOs/International Organizations or joined the military (column 1 Panel A). Furthermore, there is no significant effect on loans that households take (including formal loans from banks or NGOs). Assuming that nightlight proxys for development and thus infrastructure, there is also no significant improvement as it is the case for different measures of household living standards. The only significant finding is that households participate less in any cash for work program from the National Emergency Employment Program (NEEP), National Solidarity Program (NSP) or other cash for work and income generation projects.⁶¹ When keeping in mind that these programs often involve foreign staff, the finding would be in line with what [Böhnke and Zürcher \(2013\)](#) and [Child \(2017\)](#) argue.

However, since this result is based on only one significant finding (out of 20 regressions), I further investigate the acceptance and effectiveness of aid programs. I do so to rule out that my results are driven by an out-crowding of rather informal (traditional) ties in the community because of an increased supply of formal alternatives and thus a reduced need to rely on the former. First, I investigate the effectiveness of development aid from the World Bank (WB) interacted with the treatment to identify potential heterogeneities. While the treatment did not infer changes in aid volumes according to [Table 27](#) Panel C, aid might be more or less effective when ISAF is present. ISAF's

⁶¹Since this can simply be due to the fact that there are less programs, I control for the presence of a CDC and lagged development aid. Results remain robust to this. However, when I include the self-reported statement that there was no such program or that the household didn't know of it, the effect turns insignificant (it remains negative though).

mission states to increase security “so that the Afghan Authorities as well as the personnel of the United Nations and other international civilian personnel engaged, in particular, in reconstruction and humanitarian efforts, can operate in a secure environment.”⁶² I consider nightlight and household living standards as the outcome in the aid effectiveness analysis. As can be seen in Figure 8, however, ISAF seems to reduce the effectiveness of development aid provided by the World Bank according to a variety of outcome measures.⁶³ This is in line with anecdotal evidence provided by Child (2017) from his field interviews, which points to projects causing more resistance when they are tied to the military. This again relates to the discussion of the compound treatment with military presence and the provision of aid as two parts of the treatment. Both represent the presence of foreign personnel, which is aligned with the government.

Second, I have a closer look at my outcome variable *Council Member*, which is composed of the membership in the traditional shura and the CDC initiated by the NSP, with the latter being much more closely linked to the government and the involvement of foreign staff. So far, I analyzed the participation in any of the two councils jointly as both represent community participation. The distinction allows me to derive conclusions about the acceptance of the NSP, which aims at strengthening local governance but also at increasing government control. Table 7 presents results for participation in the CDC in Panel A, and in the traditional shuras in Panel B. The joint effect shown in Table 21 seems to be driven mostly by the membership in the CDCs. While columns (1) and (2) refer to the baseline sample of the GRD, columns (3) and (4) restrict the analysis to those villages which have a CDC or shura.⁶⁴

These findings all suggest that community support is not crowded out by formal state support or by the increased effectiveness of development aid projects, which render community support less important. They also indicate that institutions set up by the state often in partnership with foreign NGOs or military personnel seem less welcome. Since I have no data on attitudes, I cannot dig deeper into this when using the GRD. However, these results support the general picture derived from the literature that considers attitudes and either violence committed by ISAF (e.g., Lyall et al., 2013; Schutte, 2017) or the provision of aid (e.g., Child, 2017).⁶⁵ It also fits anecdotal evidence, as for instance

⁶²Source: https://www.nato.int/isaf/topics/mandate/unsr/resolution_1510.pdf, accessed April 9 2018.

⁶³The marginal effect of aid is more negative for five out of six outcome measures when the household lives in the treated area where ISAF is present. The marginal effect turns significant in three of these cases (wheat consumption, expenditures, and food security).

⁶⁴In about 50% respectively, with more than 80% of the households living in a village/community where there is either a CDC or a traditional shura.

⁶⁵Beath et al. (2016) identifies generally positive effects of the NSP program on economic outcomes and support for the government, but not in regions close to Pakistan, where external insurgents are involved which do not rely on the local population for support. The difference between my finding and their finding can be driven by the different time horizons. While I account only for the short-term effects Beath et al. (2016) considers longer term effects. Also anecdotal evidence points to first skepticism among communities, which later turned into trust into this program (Nixon, 2008).

TABLE 7
Regression discontinuity: Council Member (2005)

	Full sample		If council=1	
	(1)	(2)	(3)	(4)
Panel A: CDC				
ISAF treat	-0.151** (0.061)	-0.097*** (0.037)	-0.381*** (0.121)	-0.247** (0.118)
Observations	3148	3148	1731	1731
Adj. R-squared	0.166	0.165	0.117	0.115
Panel B: Traditional Shura				
ISAF treat	0.025 (0.085)	-0.035 (0.056)	-0.056 (0.109)	-0.289 (0.181)
Observations	3148	3148	1687	1687
Adj. R-squared	0.170	0.177	0.189	0.197
200km segments	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Restricted sample	Yes	Yes	Yes	Yes
GRD type	Linear	Long & Lat	Linear	Long & Lat

Notes: The dependent variable is membership in either the CDC or traditional shura. Results are provided for the 50km bandwidth. 200km segment-fixed effects are included. The set of control variables include aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

by General McChrystal, who notes “we face not only a resilient and growing insurgency; there is also a crisis of confidence among Afghans – in both their government and the international community – that undermines our credibility” (Jones and Muñoz, 2010, p. 8). In analogy, Giustozzi (2008, p. 35) points out that the deployment of troops has been interpreted as increased repression by local communities. My findings contribute to the literature and anecdotal evidence by highlighting that not only the perceptions of and collaboration with the insurgents or the government can change, but also that ties within communities are adversely affected. What is more, my findings indicate that the negative effect of the presence of international forces is not dependent on the level of violence. Neglecting the role of foreign interventions can lead to mixed findings on how violence affects community cohesion and on how development aid can be effective in winning hearts and minds and achieving reconstruction efforts.

7. Conclusion

In this paper, I analyze whether and how the presence of foreign military forces relates to community cohesion in times of conflict. I consider Afghanistan, which has been exposed to conflict for decades and where households had to adopt coping strategies to

deal with the never-ending insecurity. In an environment where state institutions are unstable or even lacking, community cohesion and cooperation plays a central role as a coping mechanism. This is not only relevant from the perspective of households, but also with regard to the success of security missions and development projects. In particular, I consider the role of the International Security Assistance Force (ISAF), which “was one of the largest coalitions in history.”⁶⁶

Due to endogeneity concerns, I propose three different estimation techniques to get as close as possible to estimating causal effects. First, I rely on household-level quasi-panel data from the National Risk and Vulnerability Assessment (NRVA) and the Survey of the Afghan People (from the Asia Foundation) and apply high-dimensional fixed effects and pre-determined control variables to capture an important part of the omitted variables that might bias the results. Second, I investigate how exogenous income shocks affect the level of community cohesion differently according to the presence of ISAF. Third, I exploit a geographic regression discontinuity. I make use of the step-wise enlargement of ISAF’s mandate as envisaged by the Bonn Agreement. The UNSC Resolution 1510 on October 13 in 2003 announced the enlargement of ISAF to the northern regional command to support the government beyond the capital Kabul. While the first stage was completed in October 2004, stage 2 to 4 have been implemented after the NRVA household survey in 2005 had been conducted. The 2005 NRVA household survey wave allows the comparison of households close to the boundary between the northern regional command (treated area) and the rest of the country (control area) as if they were randomly assigned.

The findings suggest that households in districts where foreign military forces are present receive less help from others in their community, have less trust in community councils and participate less in those institutions. This finding is robust across the different estimation techniques and to numerous robustness checks. I also provide evidence that this is not due to a crowding-out of informal institutions by an increased provision of formal institutions.

It is well accepted among scholars and policymakers that local communities are relevant partners in postwar reconstruction, counterinsurgency and peace-building. Yet, prior work has focused on attitudes and collaborative behavior with either the insurgents or pro-government forces including foreign military personnel. The role of ties within communities has received much less attention, though. When the community’s social glue is eroded because of the foreign military intervention, this can harm the effectiveness of security missions, postwar reconstruction and consequently nation-building.

⁶⁶Source: https://www.nato.int/cps/en/natohq/topics_69366.htm, accessed February 8, 2018.

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A. Origins of administrative borders

Historical origins: Afghanistan has a long history of military occupations and interventions by foreign countries, including Great Britain (colonial empire), the Soviet Union and more recently the US.⁶⁷ After the attempts by the British to control the country through the first (1839–1842) and second (1878–80) Anglo-Afghan War, the British decided to turn the country into a buffer state. By the end of the 19th century, the British pushed for a formal border between Afghanistan and British India (today it marks the border between Afghanistan and Pakistan). Mortimer Durand negotiated the Durand Line Treaty with Abdur Rahman, who was Emir of Afghanistan from 1880 to 1901. The Durand line forms a boundary that is largely not recognized by Afghanistan and which divided the Pashtun population in half. With regard to the northern border, agreements with the Russian government took place in 1885. The greater part of the northern border is demarcated by rivers (Oxus river, now known as the Amu Darya) (Omrani, 2009). According to Giustozzi (2008), Abdur Rahman set the basis for what became Afghanistan’s administration. Abdur Rahman also introduced smaller provinces than before and replaced local rulers with his own representatives. “Abdur Rahman was also the first ruler to start the policy of deporting whole communities to far-off regions” (Giustozzi, 2008, p. 5), a practice that has been continued until 1959. The rulers aimed at creating a mix of ethnicities in order to regain support for the central government. In particular, Pashtun tribes have been exposed to this practice and have been deported to the northern regions.

In general, administrative units within Afghanistan have been repeatedly reorganized. Under King Nadir Shah who reigned Afghanistan from 1929 to 1933 and split the country into eight provinces, which were under the power of the central government. The command was going from province to district to sub-districts. This system was dominant until a major reform of the administrative boundaries has been undertaken in 1963 (Gopalakrishnan, 1982). This reform reorganized the country into 28 provinces and set the basis for today’s administrative divisions.⁶⁸

The historical and political gazetteers for Afghanistan indicate that the borders have often been demarcated by geographic features such as rivers or mountains. According to Giustozzi (2008), the Afghan state throughout tried to apply “divide and rule” tactics. “Provincial boundaries were drawn in such a way as to divide communities and create multi-ethnic and multi-tribal administrative units, making it difficult for the local population to come together and influence or oppose government” (Giustozzi, 2008, p. 21). This indicates that the administrative units are not a construct of ethnic or tribal

⁶⁷Figure 16 plots the directions and major fighting territories of the Soviet invasion from 1979-1989.

⁶⁸See <http://www.iranicaonline.org/articles/afghanistan-xi-admin> and pahar.in/wpfb-file/1985-historical-and-political-gazetteer-of-afghanistan-vol-6-kabul-and-se-afghanistan-s-pdf/, both accessed 08.06.2018.

homelands and have rather even been constantly changed.

Recent reorganization: A more recent reorganization took place in June 2005, where the Afghan Ministry of the Interior assigned 398 districts to 34 provinces. Before the country was divided into 329 districts and 32 provinces.⁶⁹ In most cases, province boundaries have not been affected by this new reorganization, with the exception of the creation of two new provinces (Daikondi and Panjshir). In most cases, districts have been split and in few cases reassigned to another (new) province. Only in case of two districts such a transfer took place at the GRD treatment boundary, shifting these two districts from treatment to control group. The two districts Kahmard and Sayghan have first been part of Baghlan province (northern command) and then in 2005 they shifted to Bamyan province (eastern command).⁷⁰ Given that NATO was deployed to the north before the administrative reform took place, I assume these two districts to be treated in 2005 as they have belonged to the Baghlan province and thus have been part of the first stage of the mandate enlargement to the north.⁷¹ However, for robustness I first exclude them as well as the province Bamyan and second rerun all regressions using the *new treatment boundary* that is based on this shift of the districts.⁷² Apart from these administrative units no other units have been shifted in a way that they crossed the *treatment boundary* given the administrative reorganization in 2005.⁷³

This change occurred just right before the NRVA 2005 wave has been conducted. While starting from this wave, households have already been assigned to the new list of districts, this was not so the case for the 2003 wave, which I use for balancing tests. In the latter case, I used the village geocodes (longitude and latitude) and matched those to the new administrative units, i.e. the 398 districts.

⁶⁹Source: http://www.aims.org.af/services/mapping/geo_codes/398_dist_matching_to_329.xls and <http://www.statoids.com/uaf.html>, accessed 11.06.2018.

⁷⁰Source: http://www.aims.org.af/services/mapping/geo_codes/398_dist_matching_to_329.xls. I compared the shapefiles for 329 and 398 districts provided by e.g., <https://esoc.princeton.edu/country/afghanistan>, accessed 09.06.2018.

⁷¹In June 28, 2004 the establishment of 4 PRTs in the North has been announced including Baghlan (https://www.nato.int/cps/en/natohq/topics_69366.htm, accessed 09.06.2018).

⁷²The new boundary is plotted for comparison in Figure 9.

⁷³Note that Bamyan province is anyhow excluded in the most rigorous specifications as there are indications of ISAF presence before the mandate enlargement to the east officially took place.

B. Nato involvement in Afghanistan

General facts: Following the Bonn Agreement in 2001, ISAF was tasked to support the Afghan government in securing Kabul and its surroundings exclusively.⁷⁴ At that time it was under the lead of individual NATO allies, with the lead being based on a six-month national rotation. The NATO took the lead of ISAF in Afghanistan on August 11, 2003 with the main objective “to enable the Afghan government to provide effective security across the country and develop new Afghan security forces to ensure Afghanistan would never again become a safe haven for terrorists.”⁷⁵ ISAF supported the Afghan National Security Forces (ANSF) in conducting security operations and in counterinsurgency activities, with the aim at increasing the capacity and capabilities of the Afghan forces. Another objective was to improve governance and socio-economic development and to create sustainable stability. 51 NATO and partner nations were involved with 130,000 strong troops at its height. Originally the international forces were deployed to Kabul, though the presence was subsequently enlarged as described in the following. The UNSC Resolution 1510 “[a]uthorizes expansion of the mandate of the International Security Assistance Force to allow it, as resources permit, to support the Afghan Transitional Authority and its successors in the maintenance of security in areas of Afghanistan outside of Kabul and its environs, so that the Afghan Authorities as well as the personnel of the United Nations and other international civilian personnel engaged, in particular, in reconstruction and humanitarian efforts, can operate in a secure environment, and to provide security assistance for the performance of other tasks in support of the Bonn Agreement.”⁷⁶ At the end of 2006, the expansion over the entire country has been completed.

Mandate enlargement: The following gives a summary of the enlargement of ISAF’s mandate split into four stages according to the four regional commands as presented in Figure 9, with stage 1 starting in the north of the country to stage 4 (covering the entire country) (Source: https://www.nato.int/cps/en/natohq/topics_69366.htm, accessed April 2, 2018.):

⁷⁴The Bonn Agreement established the Afghan Interim Authority (AIA) with Hamid Karzai as Chairman.

⁷⁵Source: https://www.nato.int/cps/en/natohq/topics_69366.htm, accessed April 9, 2018.

⁷⁶Source: https://www.nato.int/isaf/topics/mandate/unsr/resolution_1510.pdf, accessed April 9 2018.

FIGURE 3
ISAF mandate expansion



Notes: This figure presents the expansion of the ISAF mandate. Source: <https://www.gov.uk/government/publications/uks-work-in-afghanistan/the-uks-work-in-afghanistan>, accessed 27.06.2018.

Stage 1: To the North	
December 31, 2003	taking command over PRT in Kunduz as a pilot
June 28, 2004	announced establishment of 4 PRTs in the North (Mazar-e-Sharif, Meymana, Feyzabad, Baghlan)
Oct. 1, 2004	process completed: present in 9 northern provinces
Stage 2: To the West	
February 10, 2005	announced enlargement to the West
May 31, 2006	process began
September, 2006	taking command over PRT/bases in Herat and Farah two more PRTs become operational (Ghor, Baghdis) Present in 50% of Afghanistan's territory: 9 northern provinces + all western provinces
Stage 3: To the South	
December 8, 2005	plan for stage 3 endorsed
July 31, 2006	process began command expanded over 6 provinces including 4 PRTs (Daykundi, Helmand, Kandahar, Nimruz, Uruzgan, Zabul) covering 3/4 of Afghanistan's territory (total of 13 PRTs)
Stage 4: To the East	
October 5, 2006	final stage implemented responsibility of entire country

With regard to the exact timing when stage 2 (west) began, there is some mixed evidence. The earliest date that is mentioned is May 2005, which would be just shortly before the NRVA survey has been conducted (June to August 2005). This date is in contrast to what is noted on the NATO website and to official numbers of when PRTs fall under the command of ISAF or when they have been opened by ISAF. To still eliminate any concerns, I exclude these western provinces in the GRD for robustness (see Table 26). Results are not affected by this. Note also that even if they started to be present earlier than what the official numbers claim, I don't expect effects to occur within a month. Moreover, most of the questions I use from the NRVA refer to the last 12 months.

Provincial Reconstruction Teams (PRT): This unit has been created by a program called Coalition Humanitarian Liaison Cells before the first stage of the mandate enlargement took place. They have then been assigned to NATO command and been renamed into PRT, with different nations taking the lead of the 26 units. Originally, PRTs were U.S.-funded and directed and “[t]hese cells were made up of five to ten Army Civil Affairs Officers who manned small outposts in the provinces of Afghanistan where Coalition Forces were present.”⁷⁷ Because of the different lead nations, they lack an overarching strategy and differ in size, structure and guidance. In general, these units were set up to provide support to other actors for reconstruction, development and humanitarian assistance. The principal role of the PRTs in this respect was to build Afghan capacity, support the growth of governance structures and promote an environment in which governance can improve. Since some PRTs have been active before the mandate enlargement began, I account for this in my analysis when looking at the *restricted sample*. According to Eronen (2008), the first PRTs were established in 2003 in Gardez, Kunduz, Bamyan, and Mazar-e Sharif. In the control group, I exclude the regions for robustness.⁷⁸

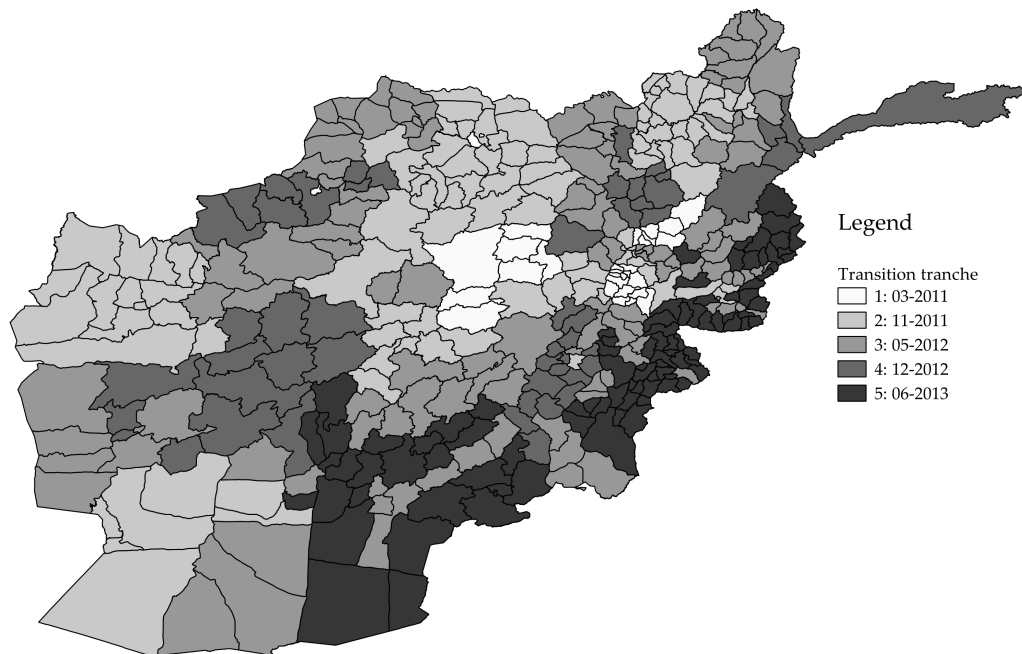
Transition to Afghan forces: ISAF started in 2011 to pass over responsibility to the Afghan forces with the transition being completed at the end of 2014. The gradual transition process, in Pashtu and Dari called “Inteqal”, was split into 5 tranches. The process is displayed in Figure 4 below. I digitized Eynde et al.’s (2017) map of the transition process. Because of a lack of information on the exact transition ceremonies, the authors use the announcement of the transition stages by president Karzai. For more details on this process see Eynde et al. (2017) who analyze the effects of the transition from international lead to Afghan lead on insurgent activity and counterinsurgent effectiveness.

⁷⁷source: <http://www.understandingwar.org/provincial-reconstruction-teams-prts>, accessed April 6, 2018.

⁷⁸For the Bamyan province this is also stated in other sources, as for instance <http://www.nzdf.mil.nz/news/media-releases/2013/20130405-codbma.htm>, accessed 22.05.2018.

In this paper, I account for that by looking at the *restricted sample*, which excludes districts where the transition already took place. Note that this is only relevant for the panel regression analysis.

FIGURE 4
Security transition from ISAF to Afghan Army



Notes: This figure represents the security transition tranches from ISAF to the Afghan Army starting in 2011 and being completed in December 2014 with the transition ceremony (end of ISAF involvement). Highlighted are the announcements of the transition tranches by president Karzai, not the actual completion of the respective transition. Source: [Eynde et al. \(2017\)](#).

The transition process also included the phasing out of all PRTs by the end of 2014 with their functions being handed over either to the government, development actors or to the private sector. After ISAF's mission was completed when the transition ended, a new non-combat mission was launched already in January 2015, the so-called *Resolute Support*. This mission's objectives are to provide further training, advise and support to the Afghan security forces. Western forces are therefore continuously present.

Apart from ISAF

Operation Enduring Freedom (OEF): In October 2001, the US-led coalition OEF started a military campaign. Dorn (2011, p. 18) describes OEF's main goal to defeat terrorists, in particular, al-Qaeda and the Taliban, and that it "uses primarily a warfighting strategy." It is different from ISAF also for other reasons, as for instance with regard to its lacking authorization by the UNSC. Neither the invasion nor the creation of OEF have been authorized. However, several UNSC resolutions acknowledged OEF, such that it became clear that the intervention is not illegal.⁷⁹ Within the first two years where ISAF was a rather small force composed of 5,000 and restricted to Kabul, "OEF continued operating throughout the country, though its permanent presence was limited to the Kabul region and a few bigger cities in the east and southeast of the country" (Eronen, 2008, p. 3). Since this could bias my results, I exclude those locations where I have information on their presence before the 2005 survey wave has been conducted (again only for the control group). In Table 26, I also exclude the eastern command from the GRD for robustness. Note that the south where they have most bases is not included in the GRD as this is outside of the applied bandwidths. US facilities as of January 2005 are plotted in Figure 11. While the first couple of PRTs were under the lead of the OEF (Gardez, Kunduz, Bamyan and Mazar-e Sharif according to Eronen (2008)), their lead has been passed to ISAF throughout its mandate expansion. As noted before, I exclude Bamyan in the regression analysis when I refer to the restricted sample as it would be part of the GRD but in the control group.

United Nations Assistance Mission in Afghanistan (UNAMA): The UNAMA was established by the UNSC (Resolution 1401 of 28 March 2002). It aims strengthen the foundations of a constitutional democracy in Afghanistan. Different than ISAF and OEF, around 80% of the staff are Afghan nationals (Dorn, 2011). It, therefore, does not represent an entirely foreign intervention. Besides that "UNAMA, for its part, has at present only a small cadre of uniformed personnel in Afghanistan and very little ability to use force" (Dorn, 2011, p. 18). It works together with the foreign military, development and humanitarian agencies, and the Afghan government, though it "does not dictate security policy, and focuses instead on developing governing capacity, democratic institutions, respect for human rights, and sustainable development."⁸⁰

⁷⁹Source: <http://pom.peacebuild.ca/AfghanistanPeaceOperation.shtml>, accessed 27.06.2018.

⁸⁰Source: <http://pom.peacebuild.ca/AfghanistanPeaceOperation.shtml>, accessed 27.06.2018.

C. Data

NRVA dataset

The data has been collected at three different levels; the household-level (with both male and female questionnaires), the community-level (shura), and the district-level for price data. The surveys are statistically representative to the provincial level, which is not the unit of analysis that I apply. Following [Child \(2017\)](#), I regard the data at the district-level to yield reasonable approximations for district-level inference since sample sizes at the district level are quite large. For randomization, Afghanistan was divided into 44/45 strata (the 34 provinces plus the urban areas), and in each stratum, a number of clusters (primary sample units - PSU) of 12 HH were randomly selected to achieve a balanced sample across strata. The large difference of the population size across strata has required a deviation from the balanced sample (for very large and very small strata) as controlled for by the use of sampling weights. The household selection follows a quasi-random process: The total number of dwellings in a community (PSUs) was divided by 12. The resulting number was to account for the distance between two interviewed households to spread the information collected within a PSU. For more details see [CSO \(2005, 2007/08, 2011/12\)](#).

Definitions and sources

Aid: Data on development aid is derived from [AidData \(2016\)](#). I use data on World Bank (WB) aid as well as on aid coded by the Afghanistan Recipient System, which included aid from additional donors, not just the WB. The mean of the latter is about three times as high as WB aid only. Both measures are highly correlated with a correlation coefficient of 0.68.

Age/Sex (HH Head): From the NRVA ([CSO, 2005, 2007/08, 2011/12](#)). Sex takes a value of 1 for female HH heads.

Agricult. Income: The dummy is equal to 1 the household receives any income from agriculture or works in agriculture. From the NRVA ([CSO, 2005, 2007/08, 2011/12](#)).

Any CDC/Shura: The dummy is equal to 1 if the household lives in a village/community where there is a shura/CDC. From the NRVA ([CSO, 2005](#)).

Any Shock: Households have been asked whether they experienced any shocks (including insecurity, climatic shocks, price shocks etc.) within the last 12 months. From the NRVA ([CSO, 2005, 2007/08, 2011/12](#)).

Cash/Food for Work: The dummy is equal to 1 if the household participates in any cash (or income generating) or food for Work programs. From the NRVA ([CSO, 2005](#)).

Confidence/Trust in Councils: From the Survey of the Afghan People ([Asia Foundation, 2007-2014](#)). “I would like to ask you about some officials, institutions and organizations in our country. I will read these out to you. As I read out each, please tell me how much confidence you have in each of the institutions and organizations and officials to perform their jobs. Do you have a great deal of confidence, a fair amount of confidence, not very much confidence, or no confidence at all in Community Shuras/Jirgas.” In analogy, the question on trust is phrased in the same way. The variables take a value of one if the household has a great deal of confidence or a fair amount of confidence, zero if not very much confidence or no confidence at all, and missing if refused or don’t know.

Contestation: I derive measures on conflict (contestation) from different sources. Battle-related deaths are from UCPD/GED ([Sundberg and Melander, 2013](#)). IED, Direct Fire and Indirect Fire are from SIGACTS, provided by [Shaver and Wright \(2016\)](#)

at the district-year level. Insecurity is a subjective conflict measure from the NRVA survey on whether households have experienced an insecurity shock within the last 12 months (CSO, 2005, 2007/08, 2011/12). The first four measures are used in logarithms, while the latter (*Insecurity*) gives the share of households per district or takes a value of one for households exposed to this shock.

Employment: From the NRVA survey (CSO, 2005, 2007/08, 2011/12) on whether the household is employed by the military, state or NGOs. *Employed by State/NGO* takes a value of one if the household “Worked on relief programmes from Government/NGOs/International Organisations”. *Employed by Military* takes a value of one if the household “Joined military.” *Employed by Gov.* takes a value of one if household is employed by or receives benefits/pension from the government.

Ethnicity/Language: I derive information on ethnicity and languages from two different sources. One is the NRVA 2003 survey wave (CSO, 2003), which includes a question on the native language spoken by the household. I include the shares of households speaking one of the three main languages (Dari, Pashto, Uzbeki). The second source is the “georeferencing of ethnic groups” (GREG) dataset from Weidmann et al. (2010). It relies on maps from the classical “Soviet Atlas Narodov Mira” from 1964. It contains the coordinates of the group boundaries of ethnic groups. I define two variables from the latter dataset; one indicator variable taking the number of one if Pashtuns are in the districts and another variable counting the number of ethnic groups.

HH Members/Children: Number of household members in total and number of children in household. From the NRVA (CSO, 2003, 2005, 2007/08, 2011/12).

ISAF: I construct three different measures. *Mandate* enlargement takes a value of one for the northern region from 2005 on, the value switches to one for the remaining regions from 2006 on, i.e. for the survey wave of 2007/08. This indicator is based on the mandate enlargement as presented in Figure 3. Data on the location, opening and lead nations of PRTs is derived from <https://www.nato.int/isaf/topics/prt/index.html> and https://www.nato.int/cps/ua/natohq/topics_69366.htm (both accessed 26.06.2018). Data on military bases is derived from Gehring et al. (2018). Gehring et al. (2018) use information from Wikipedia’s GeoHack program for information on rather well-known bases and rely on news articles, Wikimapia and Google Maps satellite data for the less well-known ones. Due to the lack of public information because of security reasons, this dataset does not capture all existing locations and therefore it introduces some measurement error. However, as discussed in Gehring et al. (2018) there is no reason to believe that the measurement error is non-normal. The variable takes a value of one if

there is at least one open military base in a district i in year t . For PRTs and bases I construct measures on whether they are present in district i or its neighboring districts.

Loan: From NRVA (CSO, 2005, 2007/08, 2011/12). The dummy is equal to 1 if the household responds with yes to the following question: “Have you or any household member taken a loan in the last year?”

Nightlight: Data on nightlight varies at the district-year level. Version 4 DMSP-OLS Nighttime Lights composites from AidData (2016).

Opium Revenue: Opium revenues is derived from cultivation in hectares and the respective yields. Cultivation data at the district-year-level is an estimate from the data at the province-level. After multiplying cultivation with yield, I constructed opium revenues by multiplying opium production in kg with the fresh opium farm-gate prices at harvest time in constant 2010 EU/kg. From the Annual Opium Poppy Survey (UNDCP, various years) and Afghanistan Opium Survey (UNODC, various years).

Population: Population count (UN adjusted values) from Gridded Population of the World v4 (GPWv4). GPWv4 depicts the distribution of human population across the globe. Source data provided in 30 arc-second (1 km) grid cells (AidData, 2016).

Remittances: The dummy is equal to 1 if the household receives any remittances. From the NRVA (CSO, 2005, 2007, 2011/12).

Ruggedness: The data on terrain ruggedness comes from Nunn and Puga (2012). For more details see <http://diegopuga.org/data/rugged/> (accessed 30.06.2018). I define it by 1000 to keep coefficients in a readable size.

Share Rural: From the NRVA 2003 survey wave to get pre-determined values at the district-level (CSO, 2003).

Shock: I use the following shocks to construct the binary indicator variable measuring climatic shocks: Earthquakes, Landslides/avalanches, Flooding, Late damaging frosts, Heavy rains preventing work, Severe winter conditions, Hailstorms. Households have been asked whether they experienced any of these shocks (and more) within the last 12 months. From the CSO (2005, 2007/08, 2011/12).

Travel Time: Estimated travel time to the nearest city of 50,000 or more people in year 2000 (Nelson, 2008). Global Environment Monitoring Unit -

Joint Research Centre of the European Commission, Ispra Italy. Available at <http://forobs.jrc.ec.europa.eu/products/gam/> (AidData, 2016).

Territorial Control: The data comes from Dorronsoro (2005), who provides a map on the territorial control of the Taliban in 1996 and of other major groups of the Northern Alliance (Dschunbisch-o Islami, Dschamiat-i Islami, Hizb-i Wahdat). More details on the georeferencing of this variable can be found in Gehring et al. (2018).

Vegetation Health Index (VHI): I use the Vegetation Health Index (VHI) provided by the FAO (van Hoolst et al. 2016) as an objective indicator of climatic shocks. It is a composite index based on the Vegetation Condition Index and the Temperature Condition Index (Kogan 1995). The index can be used as a proxy for droughts as low values indicate drought conditions. The VHI is calculated from data of Advanced Very High Resolution Radiometer (AVHRR) sensors on board the National Oceanic and Atmospheric Administration (NOAA) and Meteorological Operational Satellite (METOP) satellites. I will also use rainfall data and take the deviation from longer term means to measure fluctuations in rainfall. I use data from NOAA (2016).

Wheat Suitability: The FAO-GAEZ (2012) model provides for each crop/Land Utilization Type (LUT) a comprehensive soil suitability evaluation for all the soil units contained in the Harmonized World Soil Database. Source: Global Agro-ecological Zones (GAEZ v3.0) by the Food and Agriculture Organization of the United Nations (FAO-GAEZ 2012). Details are provided on the website <http://www.fao.org/nr/gaez/about-data-portal/agricultural-suitability-and-potential-yields/en/> (accessed 12.10.2016).

Living standards

In the following I describe in detail the construction of each indicator which I use to measure living standards. For most indicators I follow Deaton et al. (2002), D'Souza and Jolliffe (2013) and Wiesmann et al. (2009). All these variables are derived from the NRVA survey (CSO, 2005, 2007/08, 2011/12).

Asset Index: Rather than applying principle component analysis I use the number (constant over waves) of assets the household possesses. This is done without using any weights representing the quality of the asset because of lack of information. I therefore prefer this transparent and easy-to-interpret measure. I highlight the role of electricity and phones by including them separately as binary variables indicating the possession of

these items.

Food Diversity: According to [Wiesmann et al. \(2009\)](#) “Dietary diversity is defined as the number of different foods or food groups eaten over a reference time period, which in my case is one week, not regarding the frequency of consumption.” I categorize food items into eight food groups following [Wiesmann et al. \(2009\)](#) and the World Food Programme. These groups are staples, pulses, vegetables, fruit, meat/fish, milk/dairy, sugar, and oil/fat. The variable varies between zero and eight, with eight indicating a high food diversity and thus higher standards of living.

Calorie Intake and Food Insecurity: I restrict the construction of the calorie intake on information provided in section 15 of the NRVA household survey, which is part of the woman’s questionnaire and contains amounts, frequencies and sources of a large set of food items. Unfortunately, I could not include for instance how much food they received in the course of food-for-work programs as no amounts are provided.⁸¹ I use kcal values provided by the CSO/Worldbank report.⁸² Amounts consumed are then multiplied by kcal values for that type of food and the sum represents the total household calorie intake.

Besides including the calorie intake as a continuous variable, I construct a binary indicator of food insecurity. For an individual the reference value would be 2100 calories per day as recommended by the FAO. To evaluate whether each individual in the household would reach the threshold I divide the total household daily calorie intake by the number of members that were resident and ate at least dinner regularly in the household during the last seven days. I adjust this number of resident household members by how many guest meals have been reported and how many person-meals have been eaten outside home.

Food Consumption Expenditures: As discussed in [Deaton et al. \(2002\)](#), consumption- or expenditure-based measures are regarded to be more appropriate as compared to income as they are smoother as well as less variable (e.g., due to seasonality). Besides that reason, income sources among the poor are usually more spread and thus difficult to measure, especially when households draw income from self-employment or are subsistence farmers ([Deaton et al., 2002](#), p.14; [Jolliffe et al., 2004](#), p.558). Finally, households might be more willing to give information about their expenditures as compared to their income situation ([Jolliffe et al., 2004](#), p. 558). Following [Deaton et al. \(2002\)](#) I include food items from all possible sources (purchased, gifts, etc.). The NRVA

⁸¹Note, however, that only few households participated in any such programs.

⁸²For a few items, i.e. number of eggs, nan pieces and maize(corn) I use kcal values reported in <http://siteresources.worldbank.org/AFGHANISTANEXTN/Resources/305984-1326909014678/8376871-1334700522455/NRVA0708-Quality.pdf>, accessed 30.06.2018.

survey includes a separate section of local prices at the district-level which are merged to the household-level dataset on food consumption (section 15, women’s questionnaire).

I adjusted for spatial price differences, since households in different districts face different prices. I use the Paasche and Laspeyre’s Price indices to account for that. As underlined in the literature (Deaton et al., 2002, p. 42) the median is preferred to the mean due to its lower sensitivity to outliers, which might have been caused by misunderstandings about values etc. For missing values regarding district prices I have generated the province median, which in case of missing values has been replaced by the national median price. For almost all the reported food items in the women’s questionnaire prices have been given by the district questionnaire. Food expenditure is measured in constant prices. I compare both in 2005 and 2011/12. While the 2005 wave includes more districts, the 2011/12 wave is more complete with respect to price data availability for each food item.⁸³ I only include food items that are surveyed in all three waves to allow for comparability across waves.

I add expenditures (adjusted for inflation and regional price differences) of food and drinks consumed outside home from the men’s questionnaire.⁸⁴ Unfortunately I could not account for guest meals as it is not clear of which food items they are composed of. As for the calorie intake I measure per capita expenditures by dividing the total household food consumption measure with i) the number of households (resident and ate at least dinner regularly in the household during the last seven days) and ii) the number of resident household members adjusted by guest meals.

Food Consumption Score: The Food Consumption Score has been developed by the World Food Program as an alternative measure of food diversity. The food consumption score differs from the simple food diversity measure to the extent that each food group gets a weight representing the food group’s quality. I therefore multiply the frequency of each food group with those weights and take the sum over all food groups. Food frequency, in this context, is defined as the frequency (in terms of days of consumption over a reference period) that a specific food item or food group is eaten at the household level. For a detailed description see Wiesmann et al. (2009) and World Food Programme.⁸⁵

Wheat Consumption: The Afghan food consumption is to a large extent based on wheat consumption. I construct a continuous variable representing the per capita wheat consumption within a household. According to D’Souza and Jolliffe (2013), calorie

⁸³When using constant 2005 prices I replace missing prices for few food items with the 2011/12 data.

⁸⁴Unfortunately no amounts and sources on drinks consumed at home are provided in the 2005 survey such that I also disregard those for the 2007/08 and 2011/12 survey as well.

⁸⁵See http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf, accessed 30.06.2018.

intake from wheat makes up more than half of total calorie intake.

D. Descriptive statistics

TABLE 8
Descriptives: 2005-2012

	Observations	Mean	Stand. Dev.	Min	Max
Community Help	55865	0.17	0.37	0.00	1.00
Community Help+Loans	55865	0.25	0.44	0.00	1.00
Council Member	55865	0.12	0.32	0.00	1.00
Climate Shock	55865	0.36	0.48	0.00	1.00
Any Shock	55865	0.60	0.49	0.00	1.00
Insecurity	55865	0.10	0.30	0.00	1.00
(log) BRD	55865	1.22	1.64	0.00	6.63
IED	55865	7.45	24.24	0.00	450.00
Direct Fire	55865	17.33	80.43	0.00	1625.00
Indirect Fire	55865	6.77	21.46	0.00	433.00
ISAF Mandate	55865	0.64	0.48	0.00	1.00
PRT	55865	0.30	0.46	0.00	1.00
Any Base	55865	0.29	0.45	0.00	1.00

Notes: Sample based on [Table 1](#), columns 4-6. For the definition of the variables see [Appendix C](#).

TABLE 9
Descriptives: 2005, Bandwidth 50km

	Observations	Mean	Stand. Dev.	Min	Max
Community Help	3554	0.05	0.23	0.00	1.00
Community Help+Loans	3554	0.17	0.38	0.00	1.00
Council Member	3554	0.28	0.45	0.00	1.00
Climate Shock	3554	0.46	0.50	0.00	1.00
Any Shock	3554	0.56	0.50	0.00	1.00
Insecurity	3554	0.01	0.07	0.00	1.00
(log) BRD	3554	0.07	0.46	0.00	4.04
IED	3554	0.08	0.39	0.00	4.00
Direct Fire	3554	0.46	3.29	0.00	40.00
Indirect Fire	3554	0.38	1.89	0.00	18.00
ISAF Mandate	3554	0.32	0.46	0.00	1.00
PRT	3554	0.22	0.42	0.00	1.00
Base	3554	0.21	0.41	0.00	1.00

Notes: Sample based on [Table 5](#), column 1. For the definition of the variables see [Appendix C](#).

TABLE 10
Descriptives all variables: 2005, Bandwidth 50km

	Observations	Mean	Stand. Dev.	Min	Max
Aid (WB)	3554	0.73	0.63	0.03	2.45
Aid (AFG)	3554	11.37	20.35	0.36	85.36
VHI	3554	125.71	19.02	76.90	164.05
Nighlight	3554	0.25	0.79	0.00	4.29
Loan	3554	0.46	0.50	0.00	1.00
Remittances	3554	0.12	0.33	0.00	1.00
Agricult. Income	3418	0.76	0.43	0.00	1.00
Any CDC	3554	0.57	0.49	0.00	1.00
Any Shura	3554	0.51	0.50	0.00	1.00
CDC Member	3554	0.13	0.34	0.00	1.00
Shura Member	3554	0.16	0.37	0.00	1.00
Age (HH Head)	3190	44.73	13.13	0.00	99.00
Sex (HH Head)	3240	0.01	0.10	0.00	1.00
HH Members	3539	7.36	2.71	1.00	22.00
HH Children	3190	7.34	2.62	1.00	22.00
Employed by Gov.	3418	0.09	0.29	0.00	1.00
Employed by Military	3554	0.01	0.12	0.00	1.00
Employed by State/NGO	3554	0.00	0.06	0.00	1.00
Cash for Work	3526	0.05	0.23	0.00	1.00
Food for Work	3457	0.04	0.18	0.00	1.00
Pashtuns	3554	0.42	0.49	0.00	1.00
No. Ethnic Groups	3554	2.23	0.98	1.00	4.00
Native Language: Dari	3329	0.63	0.40	0.00	1.00
Native Language: Pashto	3329	0.14	0.26	0.00	1.00
Native Language: Uzbeki	3329	0.15	0.30	0.00	1.00
Economic Improve	3488	2.76	0.90	1.00	5.00
Wheat Consumption	3554	23.18	12.78	0.00	99.00
Food Expenditure	3554	1316.51	812.79	0.00	9729.89
Dietary Diversity	3533	6.43	1.54	1.00	8.00
Food Insecurity	3488	0.23	0.42	0.00	1.00
Sum Assets	3554	1.28	1.04	0.00	8.00
Ruggedness	3554	414.37	211.67	17.21	855.89
Wheat Suitability	3554	0.43	0.23	0.01	0.87
Opium Revenue	3554	469.05	899.41	0.00	3361.81
Opium Eradication	3554	0.06	0.23	0.00	1.00
Travel Time	3554	549.11	366.70	88.52	1965.92
Share Rural	3554	0.98	0.09	0.57	1.00

Notes: Sample based on [Table 5](#), column 1. For the definition of the variables see [Appendix C](#).

TABLE 11
Descriptives: Survey of the Afghan People 2007-2014

	Observations	Mean	Stand. Dev.	Min	Max
Confidence	56664	0.70	0.46	0.00	1.00
Trust	47628	0.80	0.40	0.00	1.00
(log) BRD	56664	0.74	3.77	-4.61	8.20
Base	56664	0.34	0.47	0.00	1.00
Aid (WB)	49678	1.24	3.07	0.00	23.26
Aid (AFG)	56664	6.25	18.08	0.00	134.90
VHI	56664	129.69	22.23	61.30	191.99
Nightlight	47644	4.93	12.15	0.00	58.01

Notes: Sample based on [Table 2](#), column 1. For the definition of the variables see [Appendix C](#).

E. Additional results

Panel regressions

TABLE 12
Panel results - based on NRVA (2005-2008 and 2005-2012)

	2005-2008			2005-2012		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Mandate Enlargement						
ISAF	-0.145*** (0.036)	-0.110*** (0.035)	-0.106*** (0.035)	-0.119*** (0.032)	-0.089*** (0.031)	-0.089*** (0.031)
Contestation (t-1)		-0.025*** (0.008)	-0.027*** (0.008)		-0.025*** (0.007)	-0.026*** (0.007)
Adj. R-squared	0.291	0.313	0.302	0.285	0.305	0.296
Panel B: PRT						
ISAF	-0.116*** (0.035)	-0.076*** (0.028)	-0.061** (0.027)	-0.099*** (0.033)	-0.073*** (0.027)	-0.058** (0.027)
Contestation (t-1)		-0.029*** (0.009)	-0.031*** (0.009)		-0.027*** (0.007)	-0.027*** (0.007)
Adj. R-squared	0.289	0.312	0.301	0.283	0.305	0.295
Panel C: Military Bases						
ISAF	-0.070* (0.040)	-0.067** (0.033)	-0.050* (0.030)	-0.039 (0.035)	-0.039 (0.031)	-0.022 (0.028)
Contestation(t-1)		-0.035*** (0.008)	-0.036*** (0.008)		-0.031*** (0.007)	-0.031*** (0.007)
Adj. R-squared	0.290	0.317	0.306	0.285	0.309	0.299
Observations	51260	44052	48614	56995	49785	54347
Control variables	No	No	Yes	No	No	Yes
Restricted Sample	No	Yes	No	No	Yes	No
District, Year FE	No	No	Yes	No	No	Yes

Notes: The dependent variable is community cohesion measured by Community Help. The set of control variables includes aid (t-1), VHI (t-1), nightlight (t-1), hh shock, hh food insecurity, hh agricultural income, hh remittances, hh loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 13
Panel results based on the survey of the Afghan People, 2007-2014

	(1)	(2)	(3)
Panel A: Confidence in Council			
ISAF	-0.061 (0.047)	-0.014 (0.067)	-0.019 (0.061)
Contestation	0.001 (0.002)	0.002 (0.002)	-0.001 (0.003)
Observations	56676	56632	28926
Adj. R-squared	0.046	0.069	0.079
Panel B: Trust in Council			
ISAF	-0.097*** (0.024)	-0.027 (0.039)	-0.110* (0.065)
Contestation	0.001 (0.002)	0.001 (0.002)	-0.003 (0.003)
Observations	48998	48971	29413
Adj. R-squared	0.063	0.092	0.097
Control variables	No	Yes	Yes
District, Year FE	No	Yes	Yes
Province*Year FE	No	Yes	Yes
Restricted sample	No	No	Yes

Notes: The dependent variable is indicated in the Panel heading. The set of control variables includes aid (t-1), VHI (t-1) and nightlight(t-1). Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 14
Panel results - PRT using province FE

	2005-2008		2005-2012	
	(1)	(2)	(3)	(4)
ISAF	-0.025** (0.011)	-0.025*** (0.005)	-0.027*** (0.010)	-0.027*** (0.005)
Contestation (t-1)	-0.014*** (0.005)	-0.014*** (0.002)	-0.014*** (0.005)	-0.014*** (0.002)
Observations	50123	50123	55865	55865
Adj. R-squared	0.280	0.280	0.275	0.275
Control variables	Yes	Yes	Yes	Yes
Province,Year FE	Yes	Yes	Yes	Yes
SE cluster	District	Robust	District	Robust

Notes: The dependent variable is community cohesion measured by Community Help. ISAF presence is defined according to the presence of a PRT in district i or its neighboring districts. All regressions include province- and year-fixed effects. The set of control variables include aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level in columns (1) and (3) and robust standard errors in column (2) and (4).). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 15
Panel results - alternative conflict measures (SIGACTs)

	2005-2008			2005-2012		
	Mandate	PRT	Base	Mandate	PRT	Base
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: IED Explosion						
ISAF	-0.093*** (0.034)	-0.066** (0.026)	-0.046 (0.029)	-0.069** (0.032)	-0.058** (0.026)	-0.004 (0.031)
Contestation (t-1)	-0.061*** (0.015)	-0.063*** (0.015)	-0.069*** (0.015)	-0.041*** (0.013)	-0.042*** (0.012)	-0.045*** (0.012)
Adj. R-squared	0.303	0.302	0.301	0.295	0.294	0.293
Panel B: Direct Fire						
ISAF	-0.109*** (0.035)	-0.083*** (0.026)	-0.056** (0.028)	-0.077** (0.031)	-0.065** (0.026)	-0.025 (0.032)
Contestation (t-1)	-0.020* (0.011)	-0.024** (0.011)	-0.028** (0.011)	-0.028*** (0.008)	-0.028*** (0.008)	-0.031*** (0.008)
Adj. R-squared	0.300	0.299	0.298	0.294	0.293	0.292
Panel C: Indirect Fire						
ISAF	-0.106*** (0.034)	-0.079*** (0.026)	-0.030 (0.026)	-0.073** (0.031)	-0.062** (0.026)	-0.006 (0.029)
Contestation (t-1)	-0.019 (0.012)	-0.024* (0.012)	-0.028** (0.012)	-0.024** (0.010)	-0.025** (0.010)	-0.029*** (0.010)
Adj. R-squared	0.300	0.299	0.297	0.293	0.293	0.292
Observations	50123	50123	50123	55865	55865	55865
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
District, Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is community cohesion measured by Community Help. ISAF presence is defined according to the column heading. All regressions include district- and year-fixed effects. The set of control variables include aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

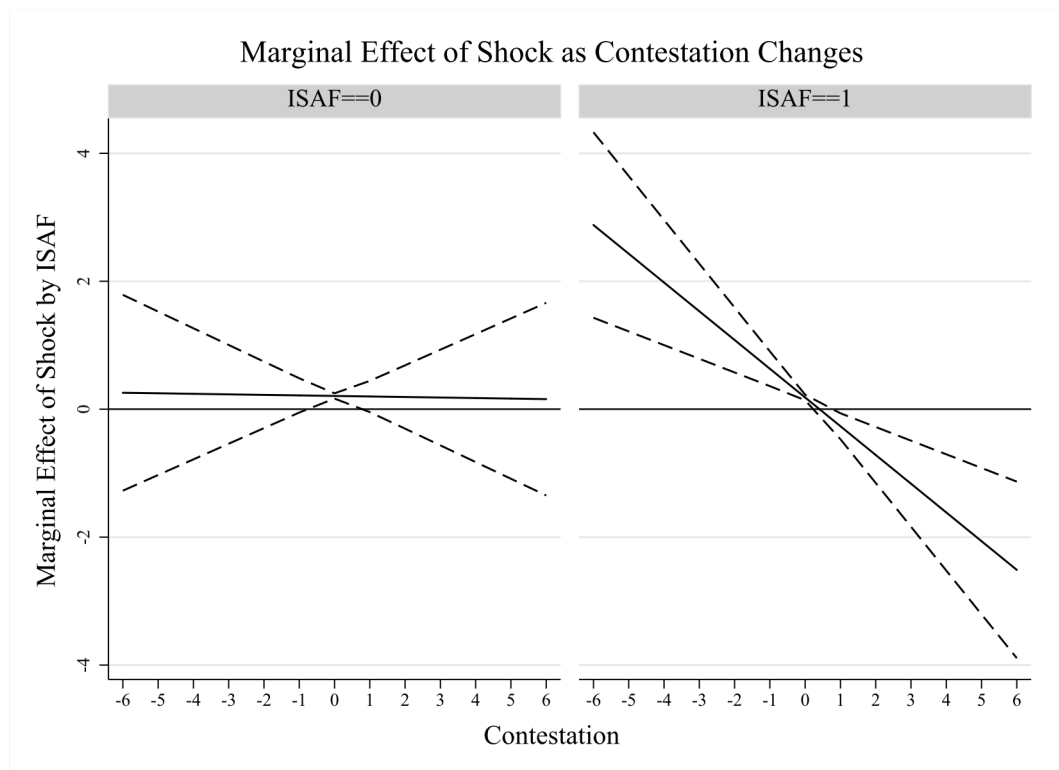
Heterogeneous effects given an exogenous shock

TABLE 16
Triple interaction - Different conflict measures

	log log BRD (1)	IED Attacks (2)	Fire Direct (3)	Indirect (4)
Panel A: No Control variables				
Shock (t-1)	0.073*** (0.015)	0.081*** (0.016)	0.051*** (0.018)	0.069*** (0.015)
ISAF	-0.013** (0.005)	-0.018*** (0.006)	-0.018** (0.007)	-0.016*** (0.005)
Shock*ISAF	0.009 (0.019)	0.005 (0.020)	0.031 (0.022)	0.014 (0.019)
Contestation	-0.004 (0.003)	-0.009*** (0.003)	-0.007* (0.004)	-0.006*** (0.002)
Shock*Contestation	0.034* (0.020)	0.024 (0.028)	0.050** (0.021)	0.040 (0.028)
ISAF*Contestation	-0.001 (0.003)	0.010* (0.006)	0.006 (0.005)	0.004 (0.005)
Shock*ISAF*Contestation	-0.095*** (0.022)	-0.042 (0.038)	-0.050 (0.038)	-0.159*** (0.035)
Observations	30916	30916	30916	30916
Adj. R-squared	0.048	0.045	0.051	0.049
Panel B: Control variables				
Shock (t-1)	0.069*** (0.015)	0.079*** (0.017)	0.050*** (0.018)	0.069*** (0.016)
ISAF	-0.009 (0.006)	-0.013** (0.006)	-0.012* (0.007)	-0.008 (0.007)
Shock*ISAF	0.010 (0.019)	0.005 (0.021)	0.031 (0.023)	0.012 (0.020)
Contestation	0.006 (0.004)	0.001 (0.008)	0.002 (0.005)	0.013 (0.014)
Shock*Contestation	0.031 (0.019)	0.021 (0.028)	0.046** (0.021)	0.031 (0.026)
ISAF*Contestation	-0.000 (0.013)	-0.000 (0.008)	0.001 (0.006)	0.012 (0.017)
Shock*ISAF*Contestation	-0.087*** (0.021)	-0.042 (0.039)	-0.051 (0.037)	-0.177*** (0.040)
Observations	29785	29785	29785	29785
Adj. R-squared	0.053	0.047	0.055	0.054

Notes: The dependent variable is community cohesion measured by Community Help. Panel B includes as control variables aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

FIGURE 5
 Marginal effect of climatic shocks as contestation changes (2005):
 Community Help+Loan as DV



Notes: Contestation is measured by the logarithm of battle-related deaths. Income shock is the indicator variable of whether a household has been exposed to a negative income shock measured by climatic shocks. Marginal effects are plotted along with 90% confidence intervals.

Regressions discontinuity

TABLE 17
Balancing tests at district-level

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A						
	log BRD	Fire Direct	Fire Indirect	IED Attack	VHI	Nightlight
ISAF treat	0.194 (0.226)	-0.002 (0.014)	0.202 (0.208)	0.126 (0.128)	-2.236 (6.830)	0.036 (0.034)
Adj. R-squared	0.098	-0.029	-0.056	-0.061	0.142	-0.020
Panel B						
	Development WB	Aid AFG	Military Bases	Wheat Suit.	Popu- ation	Share Rural
ISAF treat	0.465 (1.157)	-0.025 (0.133)	0.576 (0.582)	0.109 (0.130)	27.772 (64.370)	-0.016 (0.016)
Adj. R-squared	0.059	-0.073	-0.061	0.208	0.169	-0.083
Panel C						
	Rugged- ness	Opium Revenue	Travel Time	Territory Control	Pashtuns	No. Ethnic Groups
ISAF treat	-217.095* (122.084)	859.860 (558.612)	26.495 (173.864)	-0.264 (0.379)	0.326 (0.203)	0.433 (0.534)
Adj. R-squared	0.516	0.164	0.285	0.710	0.261	0.169
Observations	51	51	51	51	51	51
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Restricted sample	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is indicated in the column heading of each Panel. Regressions are at the district-level. Robust standard errors are in parentheses. Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 18
Placebo tests - Community Help

	50km Bandwidth (1)	75km Bandwidth (2)	100km Bandwidth (3)
Panel A: Linear polynomial in distance to boundary			
ISAF treat	-0.055 (0.037)	-0.046 (0.037)	-0.029 (0.029)
Adj. R-squared	0.021	0.008	0.009
Panel B: Linear polynomial in longitude and latitude			
ISAF treat	-0.043 (0.029)	-0.033 (0.028)	-0.023 (0.027)
Adj. R-squared	0.020	0.008	0.010
Observations	1630	2471	3483
Number of clusters	51	86	114
200km segments	Yes	Yes	Yes
Restricted sample	Yes	Yes	Yes

Notes: The dependent variable is community cohesion measured by Community Help. All regressions include as control variables hh shock and segment-fixed effects. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 19
Dependent variable: Community Help+Loan

	(1)	(2)	(3)	(4)	(5)	(6)
	Bandwidth 50		Bandwidth 75		Bandwidth 100	
Panel A: Linear polynomial in distance to boundary						
ISAF treat	-0.251*** (0.056)	-0.289*** (0.063)	-0.224*** (0.059)	-0.219*** (0.057)	-0.162*** (0.052)	-0.185*** (0.052)
Adj. R-squared	0.211	0.233	0.168	0.176	0.157	0.157
Panel B: Linear polynomial in longitude and latitude						
ISAF treat	-0.158*** (0.039)	-0.181*** (0.043)	-0.165*** (0.038)	-0.166*** (0.041)	-0.145*** (0.040)	-0.161*** (0.042)
Adj. R-squared	0.206	0.226	0.168	0.175	0.160	0.157
Panel C: Quadratic polynomial in distance to boundary						
ISAF treat	-0.239*** (0.059)	-0.279*** (0.065)	-0.220*** (0.060)	-0.214*** (0.058)	-0.157*** (0.053)	-0.184*** (0.053)
Adj. R-squared	0.212	0.236	0.168	0.177	0.158	0.157
Panel D: Quadratic polynomial in longitude and latitude						
ISAF treat	-0.216*** (0.056)	-0.232*** (0.061)	-0.181*** (0.053)	-0.181*** (0.050)	-0.129** (0.049)	-0.153*** (0.049)
Adj. R-squared	0.211	0.230	0.173	0.178	0.165	0.160
Observations	3554	3148	7495	5882	11810	8426
Number of clusters	74	64	120	103	166	144
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Restricted sample	No	Yes	No	Yes	No	Yes

Notes: The dependent variable is Community Help+Loan. 200km segment-fixed effects are included. The set of control variables include aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 20
Dependent variable: CDC/Shura Member

	(1)	(2)	(3)	(4)	(5)	(6)
	Bandwidth 50		Bandwidth 75		Bandwidth 100	
Panel A: Linear polynomial in distance to boundary						
ISAF treat	-0.096 (0.081)	-0.124 (0.085)	-0.213*** (0.069)	-0.180** (0.072)	-0.141* (0.085)	-0.164* (0.093)
Adj. R-squared	0.187	0.213	0.105	0.126	0.065	0.073
Panel B: Linear polynomial in longitude and latitude						
ISAF treat	-0.094* (0.056)	-0.121** (0.059)	-0.151*** (0.051)	-0.142*** (0.052)	-0.088 (0.064)	-0.112 (0.068)
Adj. R-squared	0.187	0.215	0.106	0.129	0.065	0.072
Panel C: Quadratic polynomial in distance to boundary						
ISAF treat	-0.081 (0.076)	-0.117 (0.083)	-0.186** (0.073)	-0.158** (0.075)	-0.142 (0.087)	-0.164* (0.093)
Adj. R-squared	0.188	0.214	0.109	0.132	0.065	0.073
Panel D: Quadratic polynomial in longitude and latitude						
ISAF treat	-0.152* (0.082)	-0.189** (0.090)	-0.204*** (0.067)	-0.193*** (0.070)	-0.137* (0.080)	-0.151* (0.086)
Adj. R-squared	0.189	0.218	0.112	0.136	0.067	0.077
Observations	3554	3148	7495	5882	11810	8426
Number of clusters	74	64	120	103	166	144
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Restricted sample	No	Yes	No	Yes	No	Yes

Notes: The dependent variable is CDC/Shura Member. 200km segment-fixed effects are included. The set of control variables include aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. I additionally control for the presence of a council. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 21
Alternative specifications

	Segment FE		Covariates	
	No	12 a 100km	No	Long Set
	(1)	(2)	(3)	(4)
Panel A: Linear polynomial in distance to boundary				
ISAF treat	-0.111** (0.049)	-0.121** (0.053)	-0.109** (0.052)	-0.111** (0.048)
Adj. R-squared	0.094	0.106	0.065	0.107
Observations	3148	3148	3148	2446
Number of clusters	64	64	64	64
Panel B: Linear polynomial in longitude and latitude				
ISAF treat	-0.065** (0.029)	-0.079** (0.032)	-0.061** (0.024)	-0.100*** (0.034)
Adj. R-squared	0.092	0.104	0.063	0.110
Observations	3148	3148	3148	2446
Number of clusters	64	64	64	64
Panel C: Direct neighbors				
ISAF treat	-0.081** (0.030)	-0.104*** (0.028)	-0.081* (0.039)	-0.120** (0.044)
Adj. R-squared	0.112	0.176	0.114	0.164
Observations	1986	1986	1986	1599
Number of clusters	28	28	28	28
Panel D: Distance to boundary interaction with treatment				
ISAF treat	-0.111** (0.049)	-0.119** (0.053)	-0.107** (0.051)	-0.113** (0.049)
Adj. R-squared	0.093	0.106	0.065	0.107
Observations	3148	3148	3148	2446
Number of clusters	64	64	64	64
200km segments	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Restricted sample	Yes	Yes	Yes	Yes

Notes: The dependent variable is community cohesion measured by Community Help. The long set of control variables includes aid(t-1), VHI(t-1), nightlight(t-1), military bases(t-1), presence of a CDC, distance to Kabul, hh shock, hh head age, hh head sex, hh members, hh number of children, food insecurity, agricultural income, remittances, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 22
Control for Contestation

	(1)	(2)	(3)	(4)	(5)	(6)
	Insecurity HH	District	UCDP log BRD	Fire Direct	Fire Indirect	IED Attack
Panel A: Linear polynomial in distance to boundary Control for Contestation						
ISAF treat	-0.124** (0.051)	-0.126** (0.051)	-0.124** (0.051)	-0.127** (0.055)	-0.124** (0.052)	-0.137*** (0.051)
Contestation (t-1)	-0.030 (0.093)	0.214 (0.290)	0.007 (0.022)	0.008 (0.038)	-0.007 (0.024)	0.076*** (0.018)
Adj. R-squared	0.097	0.098	0.097	0.097	0.098	0.108
Panel B: Linear polynomial in distance to boundary Control for Contestation and Interaction with treatment						
ISAF treat	-0.124** (0.051)	-0.129** (0.053)	-0.126** (0.051)	-0.133** (0.053)	-0.125** (0.050)	-0.138*** (0.051)
Contestation (t-1)	-0.023 (0.115)	0.199 (0.301)	0.025 (0.039)	-0.053 (0.075)	-0.019 (0.036)	0.081*** (0.017)
ISAF*Contestation	-0.040 (0.115)	0.904 (1.296)	-0.031 (0.050)	0.087 (0.085)	0.049 (0.058)	-0.049 (0.049)
Adj. R-squared	0.097	0.098	0.098	0.099	0.099	0.108
Panel B: Linear polynomial in longitude and latitude Control for Contestation						
ISAF treat	-0.083*** (0.027)	-0.083*** (0.027)	-0.082*** (0.027)	-0.082** (0.033)	-0.082*** (0.027)	-0.098*** (0.027)
Contestation (t-1)	-0.029 (0.095)	0.192 (0.296)	0.005 (0.025)	0.001 (0.042)	-0.006 (0.025)	0.078*** (0.018)
Adj. R-squared	0.095	0.096	0.095	0.095	0.095	0.106
Panel B: Linear polynomial in longitude and latitude Control for Contestation and Interaction with treatment						
ISAF treat	-0.083*** (0.027)	-0.086*** (0.029)	-0.081*** (0.029)	-0.092*** (0.032)	-0.095*** (0.036)	-0.098*** (0.028)
Contestation (t-1)	-0.025 (0.116)	0.176 (0.308)	0.013 (0.045)	-0.080 (0.093)	-0.022 (0.039)	0.081*** (0.017)
ISAF*Contestation	-0.025 (0.116)	0.862 (1.297)	-0.014 (0.055)	0.118 (0.119)	0.063 (0.075)	-0.032 (0.057)
Adj. R-squared	0.095	0.096	0.095	0.097	0.097	0.106
Observations	3148	3148	3148	3148	3148	3148
Number of clusters	64	64	64	64	64	64
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Restricted sample	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is community cohesion measured by Community Help. The long set of control variables includes aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. 200km segments included in all regressions. Contestation is measured as indicated in the column heading. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 23
Different ways of clustering SE: Community Help (2005)

	(1)	(2)	(3)
SE Cluster:	District	Village	Robust
Panel A: Linear polynomial in distance to boundary			
ISAF treat	-0.124** (0.051)	-0.124*** (0.038)	-0.124*** (0.019)
Panel B: Linear polynomial in longitude and latitude			
ISAF treat	-0.082*** (0.027)	-0.082*** (0.022)	-0.082*** (0.013)
Observations	3148	3148	3148
Adj. R-squared	0.095	0.095	0.095
200km segments	Yes	Yes	Yes
Control variables	Yes	Yes	Yes
Restricted sample	Yes	Yes	Yes

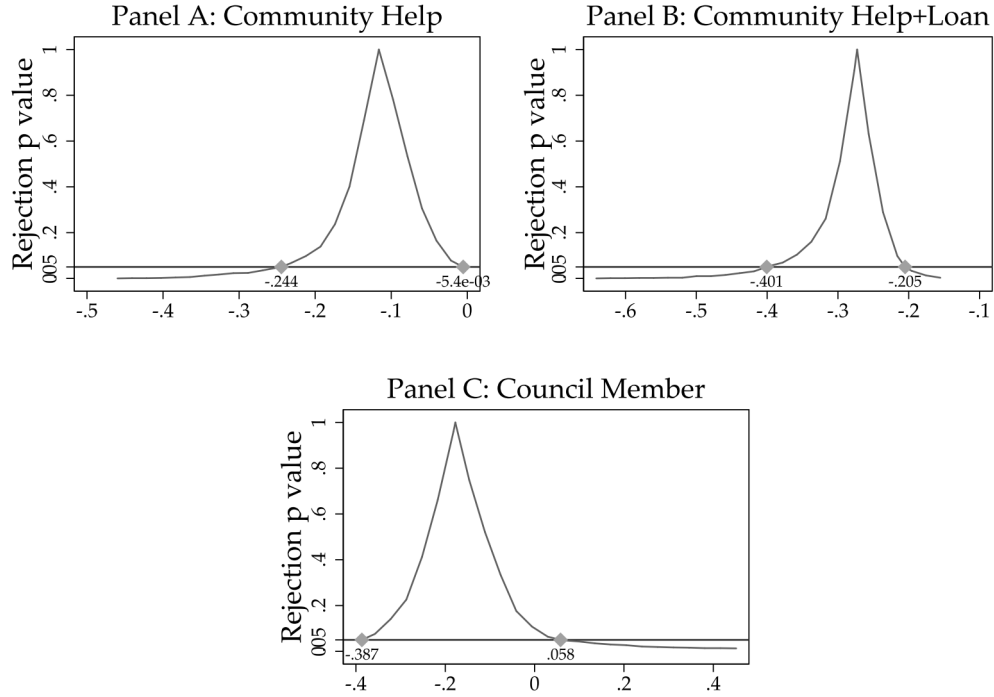
Notes: The dependent variable is community cohesion measured by Community Help. The set of control variables includes aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 24
No household weights

	(1)	(2)	(3)	(4)	(5)	(6)
	Communit Help	Community Help+Loan	Community Help+Loan	Community Help+Loan	Council Member	Council Member
ISAF treat	-0.095** (0.044)	-0.124** (0.051)	-0.251*** (0.056)	-0.289*** (0.063)	-0.109 (0.090)	-0.161* (0.093)
Adj. R-squared	0.083	0.098	0.211	0.233	0.152	0.181
Observations	3554	3148	3554	3148	3554	3148
Number of clusters	74	64	74	64	74	64
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Restricted sample	No	Yes	No	Yes	No	Yes

Notes: The dependent variable is indicated in the column heading. 200km segment-fixed effects are included. All regressions are including households within the 50km bandwidth. The set of control variables include aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

FIGURE 6
Wild-cluster Bootstrap



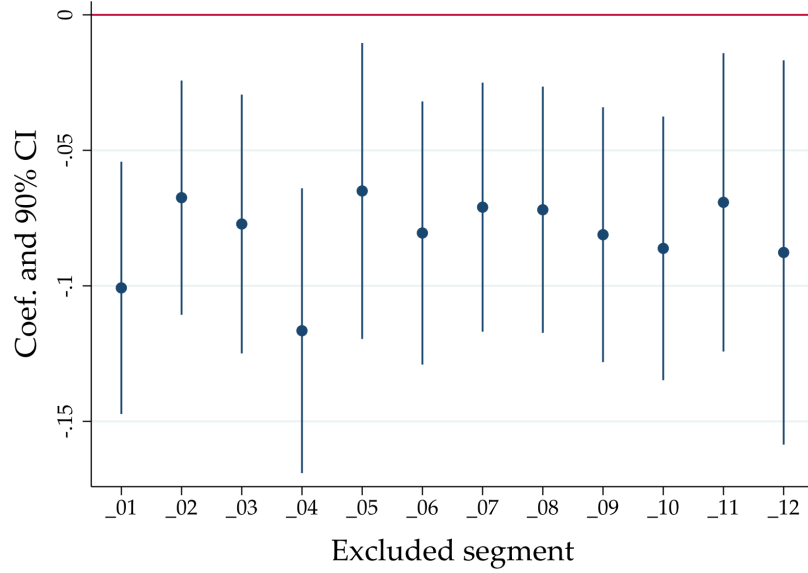
Notes: All panels show the distribution of bootstrapped estimates for province-level clustered standard errors with the null imposed with 1000 replications. The panel heading indicates the dependent variable. Results are shown for the most rigorous specification, including 200km segment fixed effects and the set of control variables for the restricted sample as in column (4) of [Table 5](#). The numbers indicate the left and right 95%-confidence interval. The Null hypothesis at the 5%-level is whether this interval contains 0.

TABLE 25
New boundary after administrative reorganization

	(1)	(2)	(3)	(4)	(5)	(6)
ISAF treat	-0.093* (0.047)	-0.115** (0.053)	-0.124** (0.051)	-0.050 (0.030)	-0.067* (0.035)	-0.082*** (0.027)
Observations	3555	3208	3148	3555	3208	3148
Adj. R-squared	0.087	0.098	0.098	0.086	0.096	0.095
200km segments	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Restricted sample	No	Yes	Yes	No	Yes	Yes
Exclude 2 districts	No	No	Yes	No	No	Yes
Border	New	New	Old	New	New	Old

Notes: The dependent variable is community cohesion measured by Community Help. The set of control variables includes aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Column (3) and (6) apply the old boundary but exclude 2 districts (Kahmard and Sayghan), which have been shifted across the border after the change of administrative units in 2005. For more details on the administrative reorganization see [Appendix A](#). Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

FIGURE 7
Drop a boundary segment at the time



Notes: The figure plots coefficient estimates of the treatment variable for 12 separate regressions. Regressions are as in [Table 5](#) Panel B column (2).

TABLE 26
Exclude western/eastern command

	(1)	(2)	(3)	(4)
	No Western Command		No Eastern Command	
ISAF treat	-0.173** (0.078)	-0.136* (0.071)	-0.062 (0.040)	-0.068*** (0.023)
Observations	2785	2785	1483	1483
Adj. R-squared	0.110	0.107	0.054	0.055
200km segments	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Restricted sample	Yes	Yes	Yes	Yes
GRD type	Linear	Long & Lat	Linear	Long & Lat

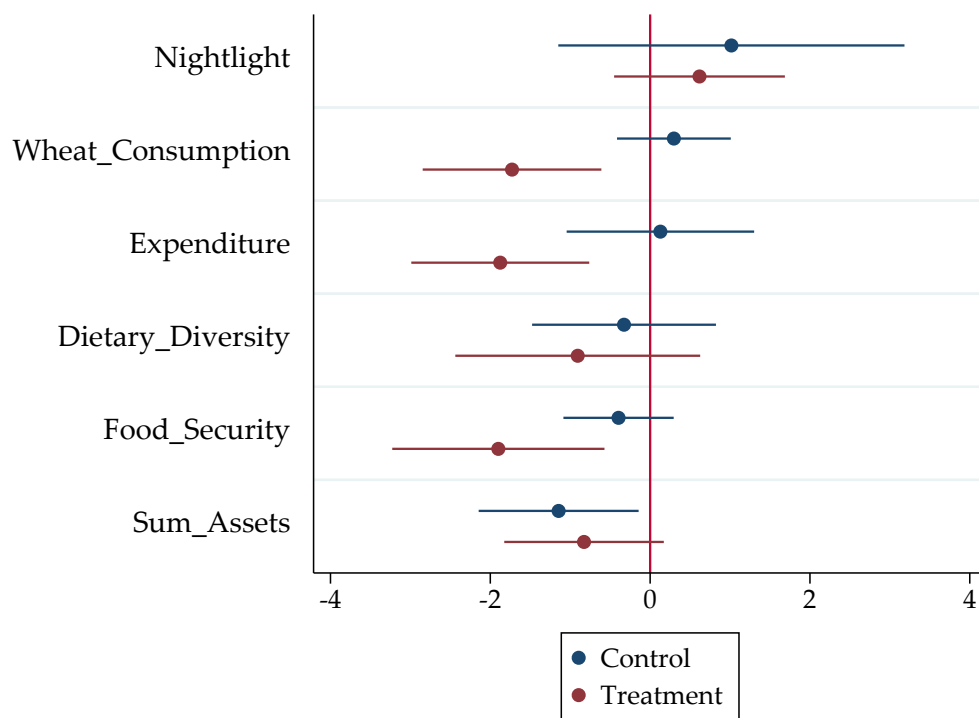
Notes: The dependent variable is community cohesion measured by Community Help. The set of control variables includes aid(t-1), VHI(t-1), nightlight(t-1), hh shock, loan. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

TABLE 27
Potential mechanisms (2005)

	(1)	(2)	(3)	(4)	(5)
Panel A: Government Employment + Coping					
	Cope State Military	Loan	Gov. Employ.	Agricult. Income	Opium Eradication
ISAF treat	-0.022 (0.016)	-0.146 (0.137)	-0.064 (0.045)	0.218 (0.141)	-0.007 (0.032)
Observations	3262	3148	3084	3084	3262
Adj. R-squared	0.064	0.093	0.057	0.035	0.141
Panel B: Living Standards					
	Wheat Consumpt.	Food Expend.	Dietary Diversity	Food Insecurity	Sum of Assets
ISAF treat	-5.103 (4.358)	-297.066 (310.410)	0.261 (0.600)	-0.110 (0.213)	0.079 (0.272)
Observations	3262	3262	3224	3185	3262
Adj. R-squared	0.036	0.065	0.242	0.075	0.015
Panel C: Aid + Economic Improvement					
	Cash for Work	Food for Work	Any CDC	Nightlight	Economic Improve
ISAF treat	-0.105** (0.046)	0.063 (0.042)	-0.280 (0.212)	0.174 (0.352)	0.144 (0.176)
Observations	3233	3147	3262	3262	3179
Adj. R-squared	0.025	0.038	0.144	0.208	0.089
Panel D: Conflict + Insecurity					
	HH Insecurity	HH Theft	(log) BRD	Fire Direct	Indirect
ISAF treat	-0.014 (0.013)	0.001 (0.008)	0.204 (0.152)	0.006 (0.411)	0.265 (0.232)
Observations	3262	3262	3262	3262	3262
Adj. R-squared	0.023	0.000	0.238	0.068	0.077
200km segments	Yes	Yes	Yes	Yes	Yes
Control variables	No	No	No	No	No
Restricted sample	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is indicated in the column heading of each Panel. Standard errors are in parentheses (clustered at the district-level). Significance levels: * 0.10 ** 0.05 *** 0.01

FIGURE 8
Heterogeneous effects of aid



Notes: The figure plots the marginal effects of aid on various outcome variables (as indicated on the y-axis) depending on whether ISAF is present (Treatment, in red) or not (Control, in blue). The effects are measured in in standard deviations. The regressions follow the baseline GRD estimation strategy as presented in [Table 5](#), column 2. The outcome is replaced with measures on nightlight and living standards in 2005, and the treatment is interacted with Aid from the WB in (t-1).

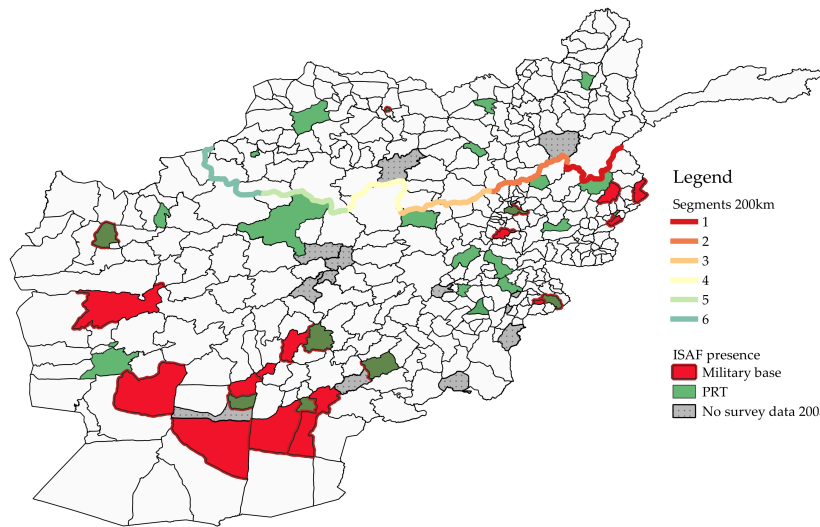
F. Additional maps

FIGURE 9
Regional commands and province names



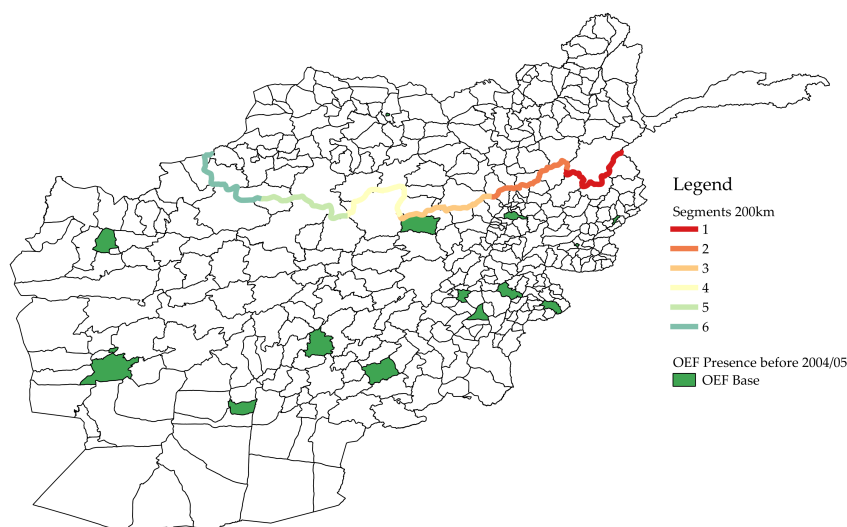
Notes: The boundary splits the country into the northern command (treated), where ISAF's mandate has been extended to in December 2003 (completed end of 2004) and the rest of the country (control), where ISAF has been deployed to after the survey wave of 2005 has been conducted. I plot the new boundary after the administrative reorganization in 2005 as described in [Appendix A](#). Highlighted are the four regional commands as described in https://www.globalsecurity.org/military/ops/oef_orbat_isaf_091000.htm (accessed 27.06.2018). The shapefile for the 34 provinces is from <https://data.humdata.org/dataset/afg-admin-boundaries>, accessed 27.06.2018.

FIGURE 10
Presence of military bases and PRTs



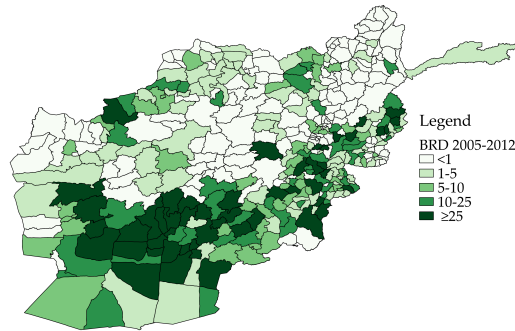
Notes: The boundary splits the country into the northern command (treated), where ISAF's mandate has been extended to in December 2003 (completed end of 2004) and the rest of the country (control), where ISAF has been deployed to after the survey wave of 2005 has been conducted. Highlighted are the six boundary segments of 200km, and the districts for which there is no survey data available in the 2005 survey wave. Districts highlighted in red (and surrounded by red) are characterized by a military base (any time within my sample period) and districts marked in green show the location of a PRT. Note that in some districts, as for instance in the district Masar-e Scharif, both a PRT and a military base is present. While the data on PRTs is complete, the data on military bases has to be considered with some caution since it covers not the entire spectrum. For more details on the collection of this data see [Gehring et al. \(2018\)](#).

FIGURE 11
OEF bases before 2005



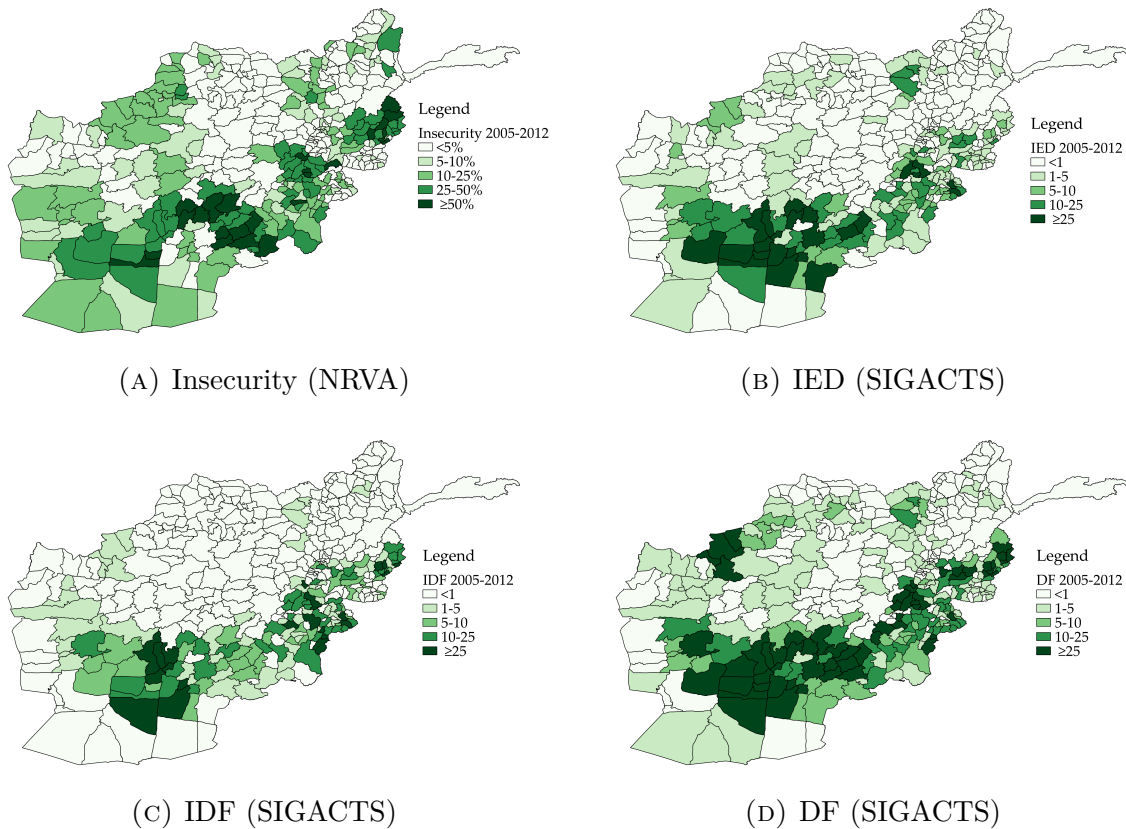
Notes: The map highlights districts with US facilities (including minor facilities) from OEF as of 01 January 2005. Source: <https://www.globalsecurity.org>, accessed 25.03.2018.

FIGURE 12
Battle-related deaths: Mean value 2005-2012



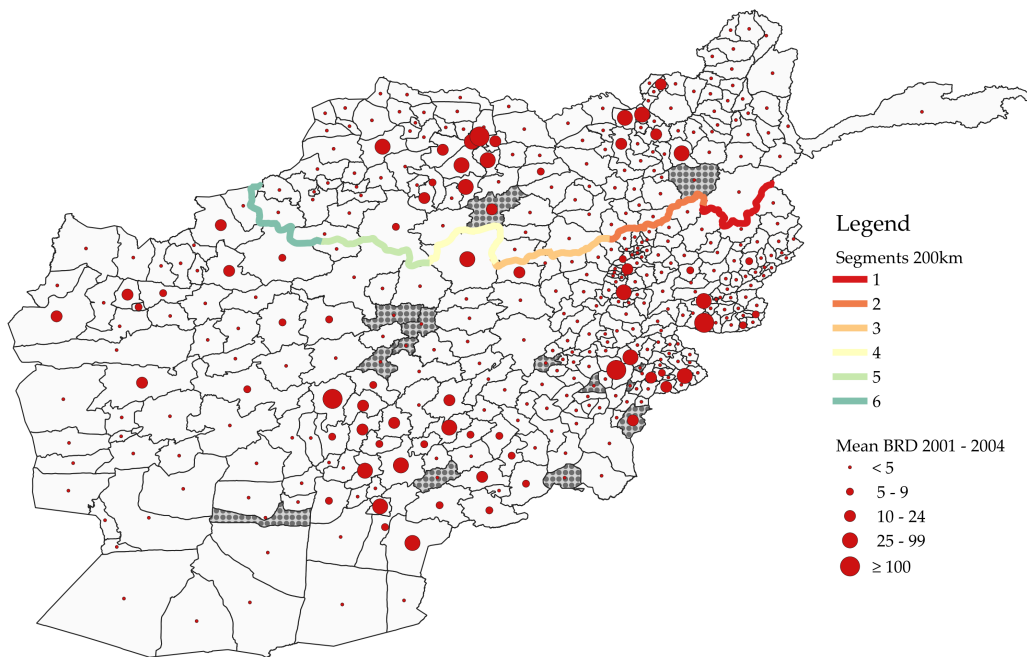
Notes: The figure plots the distribution of the number of battle-related deaths (no logarithms) from UCDP/GED in averages per district over the 2005-2012 period.

FIGURE 13
Alternative Conflict Measures: Mean Values 2005-2012



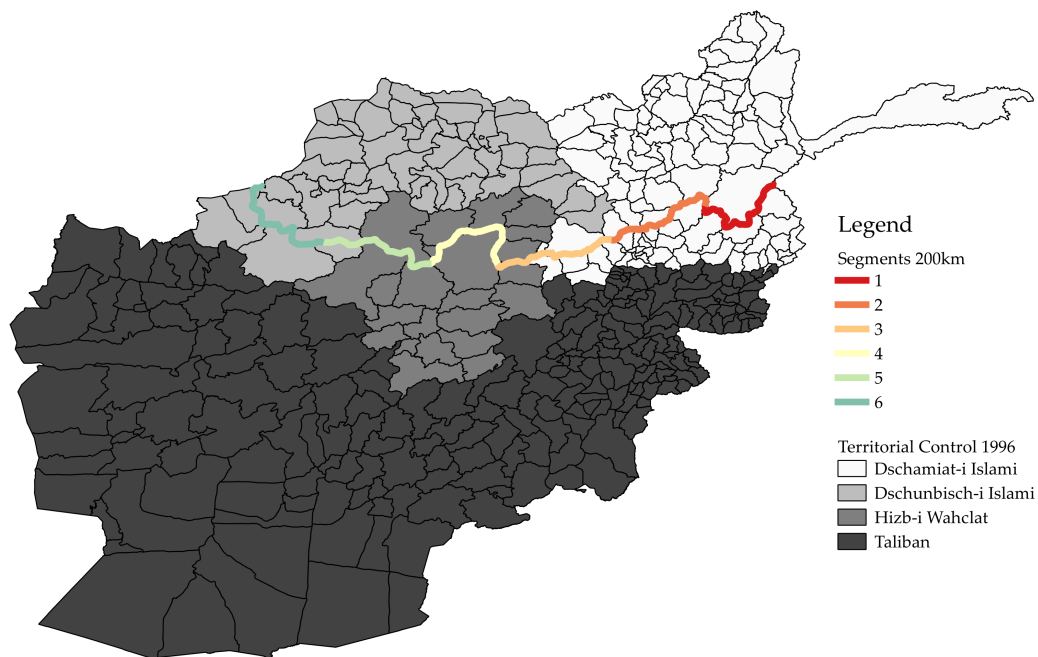
Notes: The figure plots the distribution of alternative conflict measures provided by NRVA (Panel A) and SIGACTS (Panel B-D). While Panel A shows a subjective conflict measure (Insecurity: share of households per district that experienced an insecurity shock), Panel B-D cover events tracked by the military and provide numbers (no logarithms) of three types of events: IED, Indirect Fire (ID) and Direct Fire (DF). All values are averages per district over the 2005-2012 period.

FIGURE 14
Conflict and missing survey data



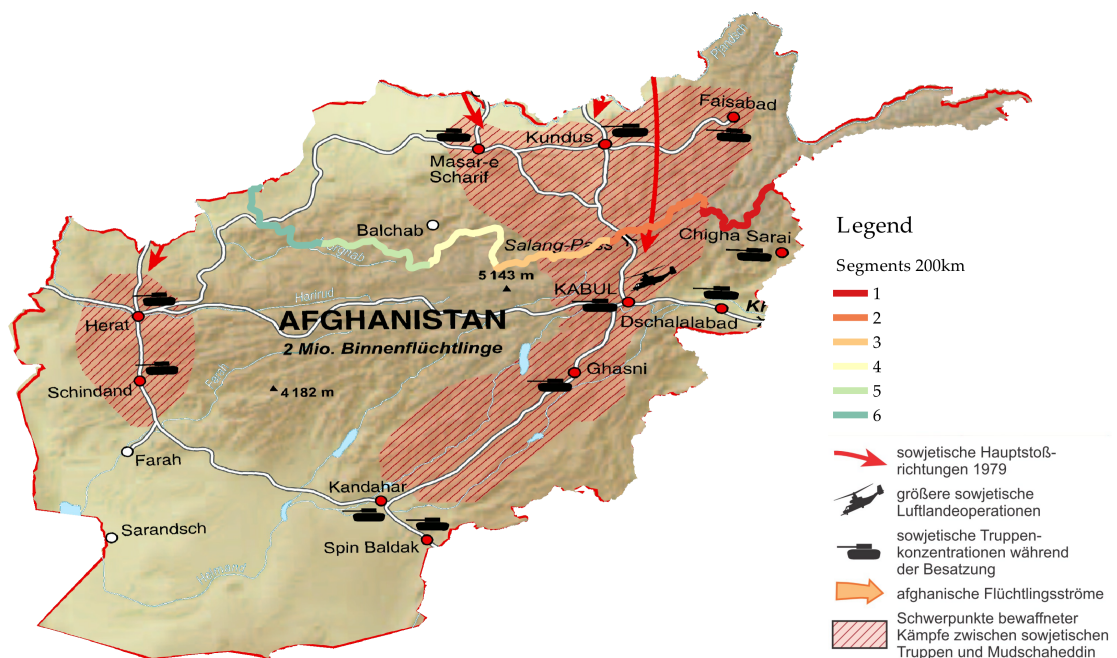
Notes: The boundary splits the country into the northern command (treated), where ISAF's mandate has been extended to in December 2003 (completed end of 2004) and the rest of the country (control), where ISAF has been deployed to after the survey wave of 2005 has been conducted. Highlighted are the six boundary segments a 200km, and the districts for which there is no survey data available in the 2005 survey wave. The red dots present the conflict intensity measured by the number of battle-related deaths (BRD). The dots present the mean BRD per district over the four prior years to 2005 (2001-2004).

FIGURE 15
Territorial control 1996



Notes: The source for the classification of the territorial control in 1996 is [Dorronsoro \(2005\)](#).

FIGURE 16
Soviet invasion 1979-1989



Notes: I georeferenced the map on the soviet invasion from <http://www.zmsbw.de/html/einsatzunterstuetzung/downloads/0592404.pdf> (accessed 26.06.2018) and overlaid it with the shapefile from <https://esoc.princeton.edu/country/afghanistan> for the 398 districts. This allows for the inclusion of the treatment boundary in this original map on the soviet invasion. The red arrows show the main directions of the invasion and the fighting (orange arrows as indicated in the legend are not on the map as they show the direction of refugee flows out of the country). Helicopters present bigger airborne landing operations and battle tanks show main troop concentration while the occupation. The red dashed areas are the focal points of fighting between soviet troops and the mujaheddin.