

How Wartime Experiences Affect Beliefs About Military Power: Evidence from the 2008 Russo-Georgian War

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Abstract

How do actors learn from wars? Explanations for war that stress the presence of asymmetric information argue that fighting during a war provides information about the relative military power and costs of fighting for each side. But *how* fighting informs the different actors on each side is less clear. In this chapter, I argue that civilians who have direct experiences with enemy forces during a war should be more likely to negatively assess their own side's relative military power after the war compared to civilians who only have indirect experiences with the enemy. More direct experiences with the invasion provide both an unmanipulable signal of military weakness as well as a psychological shock that leads to significantly more negative assessments by civilians of their side's relative military power and costs of fighting compared to less direct wartime experiences. Such assessments may then play an important role in determining the future relations between the belligerent states, including the likelihood of conflict or peace.

The 2008 Russo-Georgian War is a unique opportunity to investigate this expectation about wartime experiences and learning in the context of a recent interstate war. Using nationally representative surveys in the country of Georgia from both before and after the war, I examine differences in expressed beliefs and attitudes relating to relations with Russia among Georgians in the regions invaded by Russia compared to those in the regions not invaded by Russia. Accounting for pre-war preferences and demographics, I find that survey respondents in regions invaded by Russia were significantly more likely to support reducing spending on the Georgian military and abandoning hope of competing militarily with Russia. Respondents in invaded regions were also significantly more likely to support giving up claims over disputed territory with Russia in exchange for obtaining security guarantees against future Russian encroachment. This result is robust to several alternative specifications. A region-by-region examination of the results suggests that direct experiences with political violence may prove particularly informative.

This sample is drawn from Chapter 4 of my dissertation. I hope to publish part of this as a stand-alone paper, but this also fits into my dissertation project as a test of a key mechanism from my overall theory of decisiveness. Chapter 1 of my dissertation defined decisiveness in war as the degree to which all actors at the end of a conflict hold strong, similar beliefs about the relative power—which includes both strength and the ability to inflict costs—of each side. Chapter 2 developed a theory of decisiveness and outlined its key propositions, among which were that more direct experiences should be more likely than indirect experiences to lead beliefs to change during a war. Chapter 3 found evidence for the theoretical expectations at the large-N level across the universe of interstate wars since 1816. Chapter 5 looks more closely at how political leaders and the military learn from wars using the case of a different war, the Franco-Prussian War. Chapter 6 provides additional paired case studies drawn from the Egyptian-Israeli Wars, the Gulf Wars, and the World Wars. Chapter 7 concludes with applications to current military strategy and foreign policy.

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1 Wartime Experiences and Beliefs About Relative Military Power

War is destructive and costly, so why both sides cannot resolve their issues peacefully instead of fighting a war has been one of the enduring puzzles of political science (Fearon, 1995; Reiter, 2003). Under one prominent explanation for war, fighting helps resolve the asymmetry in information between the warring sides that initially leads to the outbreak of a war (Blainey, 1988). Each side observes the outcome of fighting on the battlefield and learns more about the relative balance of power between the warring sides, ultimately converging on a war-ending agreement as the fighting reveals more information about strength and resolve (Filson and Werner, 2002; Slantchev, 2003; Smith and Stam, 2004; Reiter, 2009). Yet the process of *how* fighting on the battlefield leads to updated beliefs about relative power is not always clear and is empirically difficult to test.¹ Historical evidence suggests that battlefield results can be rejected as exceptions or minimized by psychological coping mechanisms rather than leading to accurate updating (Jervis, 1976; Gartner, 1999; Dolan, 2009; Lake, 2010; Dolan, 2016; Streich and Levy, 2016). Furthermore, most models and empirical studies focus primarily on how leaders learn from wars and neglect the role of civilians and their experiences.

Though recent research has examined the impact of wartime experiences among civilians on a variety of outcomes such as political party support (Getmansky and Zeitzoff, 2014), attitudes towards refugees (Braithwaite et al., 2018), and collective action (Bellows and Miguel, 2009), how civilian opinion about relative military power is shaped by wartime experiences remains an open question. Yet previous research suggests that civilian opinion matters. Even in authoritarian countries, civilians can threaten to remove leaders during a war (Goemans, 2000; Chiozza and Goemans, 2004; Croco, 2011). Civilians can also select new leaders after a war who may be more or less willing to re-fight a war (Wolford, 2007).² Leaders must consider the impact of what the public has learned

¹Several recent studies have sought to study learning processes during wars using detailed data on results and casualties from battles. These generally find support for the theory that fighting is informative, but they tend to focus on the perspective of leaders and generally study the timing of the termination of the war rather than the changes in beliefs over time (Weisiger, 2016; Min, 2018). Other work on how soldiers learn from different experiences during a war also suggests that soldiers too learn from the battlefield and update their beliefs about the likelihood of success that determine their decisions to fight or flee (Lehmann and Zhukov, 2017). See also Arnold (2013) for a novel method of tracking confidence by investors during war.

²The experience of Germany after World War I compared to World War II is illustrative. With the bulk of Germany untouched by the war, civilians greeted returning German troops with parades in late 1918. In a speech in front of the Brandenburg Gate on December 10th, 1918 to thousands of high-spirited returning soldiers, one speaker claimed that, “no enemy has overcome you.” (Jones, 2016, 121). After World War II, the situation was quite different. See Chapter 6 for more discussion.

from a war in making decisions both during and after a war (Tomz et al. 2018). How civilians learn during a war is thus a key question for understanding both the processes of war termination and the likelihood of war recurrence.

In this chapter, I study how different types of wartime experiences affect civilian beliefs about foreign policy. Specifically, I distinguish between *direct* and *indirect* experiences, with more direct experiences being more likely to lead to updating beliefs about relative military power in a negative direction than indirect experiences.³ Relative military power here includes not just the balance of raw military power between each side, but also the costs of using that power and the ability to use that power to inflict costs on the other side (Schelling, 1966). If individuals “treated” with more direct experiences during the war do not shift their beliefs about relative military power in a more negative direction, then this suggests that experiences with fighting may be uninformative or that there may be cross-currents such as emotions of anger or a desire for revenge that outweigh informational updating about relative power and costs.⁴ If, however, there is a difference in beliefs about relative military power among individuals with more direct compared to indirect experiences during the war, then this suggests that individuals not only learn from their experiences during war, but also a specific mechanism by which beliefs can be changed. This has important policy implications relating to strategy and force employment during wars if convincing hearts and minds requires more direct experiences.⁵

A unique opportunity to study differences in direct and indirect wartime experiences among civilians comes from a relatively recent case of interstate conflict: the August 2008 Russo-Georgian War. I use two nationally representative surveys conducted just before and after the war and focus

³In Chapters 1 and 2 of my dissertation, I outlined a theory of decisiveness that argued that how individual actors on each side experience the fighting during a war affects the decisiveness of the war’s outcome and, in turn, the likelihood of the war’s recurrence. Each of three major constituent groups within each side of a war—political leaders, civilians, and the military—will learn from the fighting through their direct and indirect experiences. More direct, consistent information over a longer period of time that affects a greater proportion of the individual actors on each side will help move the long-term beliefs of each side towards strong, similar agreement on relative military power. The most-decisive wars that end with both sides holding similar long-term beliefs about relative power in the future will thus have a lower chance of recurring and should see a stronger, more enduring post-war peace compared to a less-decisive war outcome. Note that the focus of this chapter is not whether or not the Russo-Georgian War was itself decisive; it likely was not very decisive according to my definition due to its brevity, the relatively small part of Georgia that was affected, and the intervention of outside powers to end it. But it does provide an opportunity to test the general theoretical mechanism crucial to my theory of decisiveness by which more direct experiences among one side’s population make a war’s outcome more decisive through shifts in beliefs about relative power.

⁴For several critiques of the assumption that fighting during a war will always be informative about relative power and lead to a war-ending agreement, see Fearon (2007); Langlois and Langlois (2009).

⁵See Chapter 7 for a more detailed discussion of the policy applications of this theory.

on differences among respondents in the regions⁶ of Georgia invaded by Russia during the war compared to respondents in regions not invaded by Russia during the war. I first show that before the war there were not significant differences in opinion about Georgian military strength between respondents in the invaded and non-invaded regions. After the war, I find that respondents in the regions invaded by the Russians were more likely to be against attempting to militarily compete with Russia in the future and more likely to be willing to give up claims over disputed territory in exchange for future security from Russian invasions compared to respondents in regions not invaded by Russia. Further evidence suggests these effects may have also persisted for several years until the next round of Georgian elections and negatively impacted the voteshare of the incumbent party that was seen as culpable for the war.

This chapter begins by introducing the case and discussing the geography of the conflict across the various regions of Georgia, particularly how civilians in different parts of the country experienced the war. I then derive specific theoretical expectations relating to the effects of direct and indirect experiences and apply those to this case. The next section describes the data available from the national-level surveys conducted both before and after the 2008 Russo-Georgian War⁷ and how the expectations are then translated into specific hypotheses that are testable with the available data. After the initial quantitative analysis, I conduct a number of robustness checks to test alternative specifications of the model and examine the results more closely by geographic region. I find that my theoretical expectations were generally confirmed, but with important variance between specific regions that provides additional insights to the effects of direct and indirect experiences.

2 The 2008 Russo-Georgian War: A Short, Sharp War

The Russo-Georgian War of 2008 was a relatively rare case of generally conventional fighting between the armed forces of two independent states in the twenty-first century.⁸ Although the war

⁶Note that a “region” in Georgia is the official name for the administrative equivalent of a state in the United States or a province in Canada.

⁷This war is also called the “Five-Day War” or the “August War” in some sources. I will call it the 2008 Russo-Georgian War since that is more descriptive than the other phrases.

⁸According to the Uppsala Conflict Data Program (UCDP) database, there have been only 7 interstate and 48 internationalized intrastate conflict episodes from 2000 to 2017. The latter category is what UCDP codes the Russo-Georgia case as due to the beginning of the war taking place over a breakaway internal region of Georgia, South Ossetia. Since almost all of the combat and most of the casualties during the war took place between Russian and Georgia military forces and South Ossetia had been heavily Russian-supported before the war, however, it seems apt to call it an interstate conflict as well (Felgenhauer, 2009, 167-173).

falls just below the traditional threshold of 1,000 combat deaths for inclusion in the Correlates of War database, it was substantively similar to other interstate wars in terms of conventional combat between two organized national armies.⁹ Given the relatively short duration of operations over less than five full days, the rate of casualties was considerable, particularly for a relatively small country like Georgia. There were pockets of pitched fighting between heavily armed military forces that included aircraft, armored vehicles, and artillery (Asmus, 2010, 168-172). In the discussion of the war that follows, I will devote particular attention to the geography of the conflict within Georgia as differences in where the Russians invaded play a key role in the empirical test that forms the remainder of this chapter.

2.1 Years of Tension, Five Days of War

Georgia is divided into eleven different administrative divisions consisting of nine regions and two autonomous republics. As the modern state of Georgia obtained political independence during the collapse of the Soviet Union in the early 1990s, two separate enclaves within the internationally recognized territorial borders of Georgia violently and successfully resisted the authority of the new Tbilisi-based Georgian government. Throughout the discussion in this chapter, I will describe the autonomous republic of Abkhazia and the northern part of the region of Shida Kartli known as South Ossetia as the “disputed regions” within Georgia. See Figure 1 below for a map of these regions and locations.

Abkhazia, in the far West of the country along the Black Sea, developed its own separate armed forces and government despite being nominally part of Georgia. South Ossetia, located just south of the main peaks of the Caucasus Mountains in the center-north of Georgia in the region of Shida Kartli, was mostly controlled by Russian-supported local leaders and later hosted a peacekeeping force of Russian and local South Ossetian militias (Asmus, 2010, 61-64). In their struggles against the Georgian government, the Abkhazians and the South Ossetians made use of Russian aid and a considerable number of “volunteer” military personnel from Russia in addition to being closely tied to Moscow politically. By the late 2000s, these disputed regions were essentially self-governing and fielded their own military forces. In South Ossetia, the local armed forces and the Russian

⁹See below for more details on the sources for the casualty numbers and the specific breakdown across each side. Also see Fazal (2014) for a discussion of the declining numbers of dead in war due to better modern medicine and Reiter et al. (2016) for a discussion of using lower thresholds of deaths in determining inclusion or exclusion from datasets of wars.

Map of Georgia's Regions

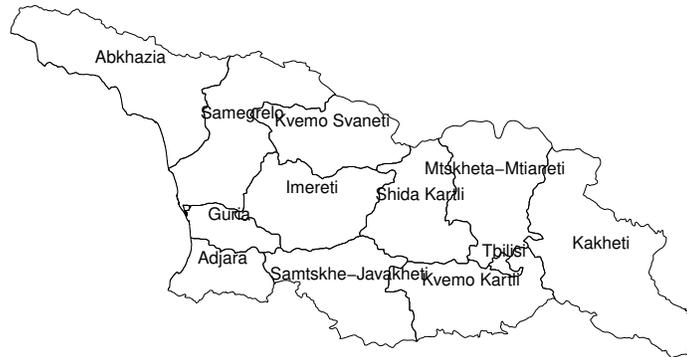


Figure 1: Georgia's administrative regions and autonomous republics. Abkhazia and Adjara are autonomous republics, but Adjara is under the control of the central Georgian government while Abkhazia is de facto independent. The northern part of Shida Kartli is also the de facto independent region of South Ossetia.

peacekeepers shared an uneasy cease-fire with Georgian troops stationed within South Ossetia to protect a number of ethnically Georgian villages found within the self-proclaimed South Ossetian state.

In early August 2008, Georgia's pro-Western President, Mikhail Saakashvili, faced a surge in incidents of local South Ossetian militia targeting ethnically Georgian villages in South Ossetia. Saakashvili had just won re-election in a strong performance earlier in 2008 and harbored dreams of bringing Georgia into the North Atlantic Treaty Organization (NATO) as well as potentially the European Union.¹⁰ Such pro-Western stances alarmed the Russians, who subsequently stepped up their military exercises and presence in the Caucasus region just north of Georgia over the summer of 2008. But by August, the Russian exercises had ended and only a small Russian peacekeeping force remained in South Ossetia. On the night of August 7th, Saakashvili decided to send in several brigades of the Georgian army to push away the South Ossetian militia and claim control of strategic territory in and around the South Ossetian capital city of Tskhinvali to bring a halt to the

¹⁰Saakashvili also cultivated close ties with a number of American politicians, including then-presidential candidate John McCain (Asmus, 2010).

attacks on the Georgian villages (Asmus, 2010, 19-23).

Fighting began with President Saakashvili's order for Georgian troops to clear out local South Ossetian militia in and around Tskhinvali on August 7th, 2008.¹¹ After temporarily pushing back the South Ossetian militia and Russian peacekeepers, the Georgians encountered regular Russian soldiers in force heading south from the Roki Tunnel that connects South Ossetia to North Ossetia (part of Russia) underneath the crest of the Caucasus Mountains. The Russian military response, encompassing land, naval, and air power, was aided by the large number of troops conveniently still in the area after recent war exercises that summer (Asmus, 2010, 179).¹² According to most estimates, approximately 40,000 Russian troops may have been involved with these military operations along with 10,000-15,000 local militia from South Ossetia and Abkhazia. The Georgian military at the time had approximately 17,000 personnel total and was under-strength, though it was aided to some degree by about 5,000 Georgian police and some additional reservists who made it to the front (Felgenhauer, 2009, 173).¹³

2.1.1 An Inadvertent War?

Most indications suggest that the Georgian political leadership simply did not calculate that their actions against the South Ossetians would provoke such an overwhelming response from the Russians. At the time the war began, the best American-trained Georgian troops were in Iraq aiding the American counter-insurgency and many other Georgian soldiers were on leave, leaving their brigades understrength (Asmus, 2010, 172). The Georgian military leaders also had no clear plan with which to respond to the Russian invasion. Conflict between the orders given by Saakashvili—

¹¹The debate over "who shot first" in this war has become extremely contested by Russian, Georgian, and foreign sources. While Asmus (2010) and Chitadze (2011) largely portray the war as a trap set by the Russians that the Georgians blundered into prematurely, Garhton (2010) and Hewitt (2013) claim that Russia was merely responding to Georgian provocations. Vendil Pallin and Westerlund (2009) point out that Russia likely had a contingency plan for a war against Georgia anyways as good operational practice. The presence of a surprisingly large number of Russian journalists in South Ossetia waiting for "something big" just before the war broke out on August 7th suggests, however, that even if Russia had not planned to begin the war on August 7th, a war may have been planned to begin not long after (Popjanevski, 2009).

¹²The Russian effort was soon personally directed from just North of the border by Russian Prime Minister Vladimir Putin after he returned from the opening ceremonies of the 2008 Olympics in China.

¹³The literature on the Russo-Georgian War is surprisingly sparse, particularly in terms of first-hand accounts in English of the actual conduct of the war rather than the lead-up to it and from sources that are not obviously biased towards one combatant or another. The most straightforward and comprehensive history of the war is found in Asmus (2010), who employs a keen journalistic sensibility and conducted interviews with many of the main players on the American and Georgian side but was unable to speak to sources within Russia. Felgenhauer (2009), as part of an edited volume quickly assembled after the war, provides an excellent account of the actual military operations and is heavily cited by nearly all subsequent analysis. An account produced by a group of Russian analysts, (Pukhov, 2010), gives some insight into the Russian movements during the war and calculus behind the intervention, but appears to draw on sources unavailable to Western audiences and has a heavily pro-Russian slant.

who took personal charge of directing operations throughout the war via his cell phone—and the wishes of Georgian army planners lasted throughout the war and well into the peace afterwards (Chivers, 2010). Though the Russian government attributed the outbreak of the war to Saakashvili being a war-monger (Pukhov, 2010), the Americans thought he was both excitable and reckless, but likely did not intend to cause a full-scale war with his actions (Asmus, 2010; Chivers, 2010).¹⁴ Thus it seems likely that one cause of the escalation that led to full-scale war was asymmetric information between the Georgians and Russians about the presence and strength of Russian troops close to Georgia as well as the Russian willingness to respond in force to Georgian military activity in South Ossetia. The Georgian leadership may have also overestimated the capabilities of the Georgian military to inflict losses on the Russians; there had been no direct, large-scale battles between Georgian and Russian forces before the war broke out, so a number of intangible variables like leadership skill and unit cohesion were unknown for sure to each side.

2.1.2 The War's End: Georgia Loses All Control Over South Ossetia and Abkhazia

Georgian forces put up resistance at first, using their artillery and ambushes against Russian forces advancing down the road to Tskhinvali to briefly slow the Russian advance (Asmus, 2010, 176). A few days after fighting broke out in South Ossetia, however, the Russians opened another front in the West along the Abkhaz-Georgian border, which the Georgians had left undefended in their focus on South Ossetia. In danger of being outflanked, the Georgian military then began a retreat to a last-ditch defense of the approaches to the Georgian capital of Tbilisi, causing a brief panic in the capital on August 11th (Nodia, 2012). Advancing Russian forces cut the main East-West highway through Georgia and occupied the city of Gori along with several Georgian army bases. Before the Russians could attack Tbilisi, however, European and American diplomatic pressure produced a cease-fire brokered by French President Nicholas Sarkozy on August 12th (Asmus, 2010, 200). It is unclear if the Russians assumed that the chastened Saakashvili government, which they detested, would fall soon in the aftermath of the war and thus saw no reason to continue on to Tbilisi to overthrow the regime or if they were more afraid of further damaging relations with the Europeans and Americans. After a series of additional agreements over the next two months, Russian forces departed from their positions in Georgia proper, but remained in Abkhazia and

¹⁴Filippov (2009) suggests a diversionary logic to the Russian escalation of the conflict to distract the Russian public from domestic woes. This might make sense at a larger level of continued Russian involvement in the Georgian enclaves, but does not explain the specific outbreak of full-scale war in this case.

South Ossetia as all sides promised to engage in talks in Geneva to later determine the status of the disputed territories.¹⁵ Although both sides had reached an official cease-fire, violent incidents along the border—some quite deadly—continued to sporadically occur (Chitadze, 2011, 106).

2.2 The Geography of the Russo-Georgian Conflict: Who Experienced the War?

Most of the conventional fighting during the war took place between Georgian and Russian troops in South Ossetia itself, but some fighting took place within and around the Georgian villages south of the border of South Ossetia and Georgia. Fighting developed primarily along the main road between Tskhinvali in South Ossetia and the Georgian city of Gori in the region of Shida Kartli but also spread along the border to the village of Khviti in the east along the Shida Kartli–Mtskheta–Mtianeti regional border (Asmus, 2010; Pukhov, 2010). See Figure 2 below for details. After Georgian troops abandoned Gori on August 11th, Russian troops occupied Gori and set up checkpoints along the roads nearby, including the main East-West highway across Georgia. Some South Ossetian militia forces also seem to have moved across the border and attacked civilians in villages within Georgia proper as well (Buchanan et al., 2009). Thus at least the Northern part of the region of Shida Kartli was “treated” with not only the Russian invasion, but also some level of actual fighting, troop movements, and political violence against civilians.

To the West, Russian troops invaded and occupied without resistance parts of the region of Samegrelo-Zemo Svaneti in a rough triangle stretching from the city of Zugdidi to the port of Poti (where most of Georgia’s naval assets were concentrated and sunk by the Russians) to the Georgian air base at Senaki further inland (Bilefsky, 2008).¹⁶ While the Russian occupation was significantly curtailed by the end of August, Russian forces remained in parts of Georgia proper, particularly around the South Ossetian border, until October (Chivers, 2010). Figure 2 shows the invaded and occupied regions of Georgia.

¹⁵The 44th round of these talks concluded in June 2018 with no major agreement. See <https://www.osce.org/chairmanship/385248> for the latest status of the talks.

¹⁶Russian patrols in this area may have reached almost as far as Khoni along the border of Samegrelo-Zemo Svaneti and the neighboring region of Imereti (Kramer and Levy, 2008).

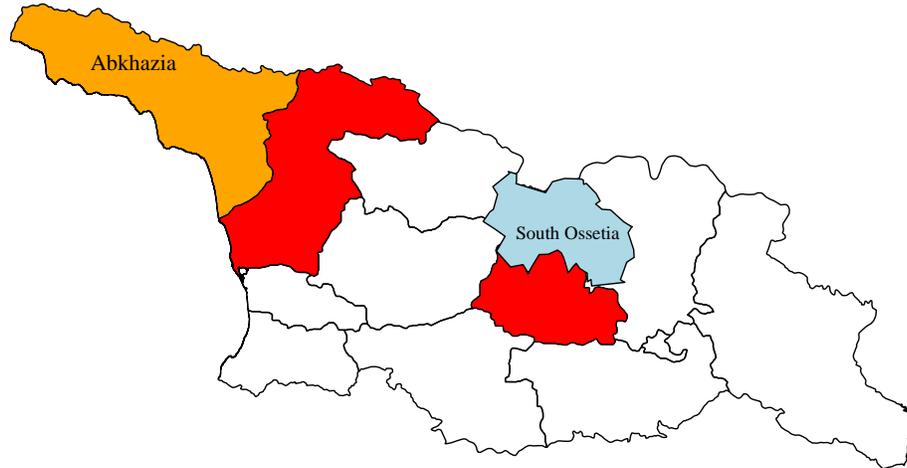


Figure 2: The disputed areas within Georgia. Orange shows the breakaway republic of Abkhazia and Light Blue the Russian-supported South Ossetia. Red indicates the regions of Georgia invaded by Russia during the war.

2.2.1 The Costs of War

After the war, the Georgian government claimed 180 dead members of its armed forces and police and 224 civilians killed along with approximately 1,500 wounded, both civilian and military. The Russians placed their casualties at 74 dead and 171 wounded, though this number would later fluctuate in later reports with the wounded number rising to 340 and the dead revised down to 48. Russian authorities also claimed 162 South Ossetian civilians were killed, though most of those may have been serving in militia units (Felgenhauer, 2009). Both sides disagree over the number of Russian planes shot down by Georgia's surprisingly strong anti-aircraft defenses during the war, but it seems to have been at least seven compared to three Georgian planes lost (Lefebvre and McDermont, 2009). Finally, an Amnesty International report claims that 192,000 people were displaced by the conflict, although most were able to return fairly quickly except for some Georgians who originally lived within South Ossetia and Abkhazia itself and were barred from returning after the war by the Russian-backed local governments (Amnesty International, 2008).¹⁷

¹⁷As a point of comparison, given that the population of Georgia in 2008 was just above 4 million and the population of the United States was over 304 million, Georgia's 404 deaths would be proportionately equivalent to over 30,700 Americans and the 192,000 displaced equivalent to just under 14.6 million Americans. Data obtained from country-level estimates via the World Bank's dataset at <https://data.worldbank.org/>.

3 Theoretical Expectations: How did the war affect beliefs about relative power?

This section turns to investigating how the war affected beliefs about relative military power and foreign policy among the Georgian citizenry. In the remainder of this chapter, I will focus on the experiences and beliefs of Georgians rather than Russians for three reasons. First, in most theoretical models of wartime updating, the expectation is that the winning side of a war should maintain the beliefs that they held before the war (Weisiger, 2016).¹⁸ This means that while both sides could have learned from the fighting, the Russians—having entered and won a war they expected to win—were less likely to change their beliefs about relative power compared to the Georgians. Second, Georgia is a far smaller country than Russia and the war had a proportionately larger effect on Georgia than on Russia, as discussed above. This should make it easier to detect changes within Georgian public opinion compared to Russia. And third, data on Georgia from both before, during, and after the war is far more readily available than similar data in Russia.¹⁹ I begin by outlining the distinction between direct and indirect experiences with the fighting and then discuss the theoretical impact that such differences could have on beliefs about relative military power.

3.1 Direct and Indirect Experiences

How did individual Georgians experience the war? I divide wartime experiences into *direct* or *indirect* types.²⁰ Direct experiences are those in which individuals are physically affected by the fighting during a war through the sustained proximity of enemy troops. This is not limited to observing the use of weapons, but rather encompasses a spectrum of experiences that may range from simply being in the presence of enemy troops, physically fleeing to avoid such physical proximity, or, at the most, being a victim of violence committed by the enemy. Jervis (1976) discusses several examples of how firsthand experiences during wars have later effects on how individuals perceive new information, citing a study that showed, “experience in which the subject took an active part exerted more influence on subsequent behavior than did the demonstration period in which the subject was a more passive spectator” (Jervis, 1976, 240). More broadly, other studies

¹⁸Though see Dolan (2016) for how unexpected versus expected developments during a war may have different effects on demands and beliefs via emotions.

¹⁹See Asmus (2010), p. 236 for an interesting discussion of the difficulties of obtaining information about the war from the Russian government.

²⁰This section is based on the discussion of decisiveness in Chapter 2 of the dissertation.

of crisis behavior have found that leaders at least are quite sensitive to history (Leng, 1983; Levy, 1994) and their own specific experiences (Horowitz et al., 2015).²¹ Personal experiences with war thus provide a clear avenue for information to potentially affect the beliefs of individual actors.²²

In contrast to direct experiences, indirect experiences during a war are those relating to information from the battlefield that is not directly experienced by actors. Sources of indirect experiences can include news reports, gossip, increases in wartime scarcities, or any other medium in which the actor receives information about the progress of the war secondhand. Assuming that actors want to learn the truth from the fighting during the war and accurately update their beliefs, it is likely to be more difficult to update accurately using indirect experiences compared to direct experiences. Given the wider range of sources for indirect information as well, there may be less accurate information provided as well as the potential for more contradictory information. Indirect experiences will need to take place over a longer period of time and be more overwhelming in terms of consistency in order to produce lasting shifts in beliefs.

What might direct experiences include in the case of the Russo-Georgian War? Civilians in the central region of Shida Kartli who were in the path of the Russian and South Ossetian forces advancing south from South Ossetia to Gori would have seen the Georgian army retreating, with some villages playing host to firefights between the Russian and Georgian troops (Felgenhauer, 2009, 173). In this same region, there were a number of atrocities committed by primarily by the Russian-allied South Ossetians such as summary executions or forced evictions (Bahrapour, 2008). The region of Samegrelo-Zemo Svaneti that bordered on Abkhazia saw a more hands-off occupation, in part because the Georgian military did not contest the Russian advance out of Abkhazia. The Russian occupation in Samegrelo-Zemo Svaneti consisted mostly of a series of checkpoints and a focus on looting the Georgian military bases in the region rather than harming the civilian population (Chivers, 2008). Though the post-war Russian occupation lasted for just under

²¹Interestingly, these studies often worry about over-learning from past experiences on the part of leaders. Other studies (and sometimes other parts of the same study in the case of Jervis (1976)) worry about leaders or publics not learning and updating their beliefs accurately due to overconfidence and psychological barriers to updating (Gartner, 1999; Johnson and Tierney, 2006).

²²A series of recent studies suggest that wartime experiences do lead to changes in a wide array of individuals' beliefs, behaviors, and identities (Bellows and Miguel, 2009; Blattman, 2009; Balcells, 2012; Getmansky and Zeitzoff, 2014; Grossman et al., 2015; Lupu and Peisakhin, 2017). As a whole, these studies show that fighting during a war drives a number of changes in both beliefs and behavior among those who are exposed to fighting firsthand, though none specifically examine the effect on beliefs about relative military power.

two weeks after the end the war in most of the two affected region, the Russians had plenty of time to destroy or requisition military equipment. In both of these invaded regions then, the information obtained from direct experiences with the fighting would have been strongly negative about the relative military strength of the Georgians compared to the Russians. The fighting revealed not only Russia's military superiority, but also a willingness on the part of Russia to actually attack Georgian territory after they moved out of the contested enclaves and onto firmly Georgian soil later in the war.

In contrast to the direct experiences of the Georgians in the path of the invasion, the rest of the population of Georgia indirectly experienced the war. These Georgians learned about the progress of the war mostly through local news, governmental reports, and online and text messages. Attempts by both the Georgian and Russian governments to win control of the narrative about the war led to sharply contrasting media reports (Garhton, 2010, 180).²³ Saakashvili for instance claimed in a live television address on August 8th that the Georgians had "full control" of Tskhinvali despite the Georgian military actually being bogged down in intense urban warfare while later Georgian reports claimed, without evidence, that the Georgians had destroyed forty Russian tanks.²⁴ Amid the fog of war, the Georgian government itself seemed paralyzed and even the Americans had difficulty getting through to Georgian leaders to discuss updates and share intelligence (Asmus, 2010, 176). Cyberattacks allegedly coordinated by Russia on Georgian websites and government servers during the war also led to some confusion, albeit not as much as they could have since Georgian officials were able to quickly make use of foreign servers to stay online (Beehner et al., 2018, Chapter 4). Due to a lack of reliable information during the war and some of the propagandist rhetoric from the Georgian government before, during, and after the war, it seems likely that Georgians who experienced the war indirectly would be less likely to update their pre-war beliefs about the relative power of each side, much less do so accurately.

One type of experience during the war is somewhat difficult to classify as direct or indirect. Russian rocket artillery and air strikes also took a toll on other areas of the country, including most of

²³Russia was widely seen to have run an efficient public relations operation during the war with a stable of effective talking heads and reporters sticking to their talking points (Goble 2009).

²⁴See <https://civil.ge/archives/116966> and <https://civil.ge/archives/116980> for contemporary news reports.

the major Georgian airbases (Pukhov, 2010).²⁵ Although previous studies have found some small but significant changes in voting behavior due to being within range of rocket attacks (Getmansky and Zeitzoff, 2014), other studies of airstrikes find that they are relatively ineffective at coercion through attacks on civilians (Horowitz and Reiter, 2001) and may be actively counterproductive (Kocher et al., 2011). The airstrikes launched by the Russians during this war were relatively scattered and not coordinated as part of a strategic bombing campaign against civilians (Lefebvre and McDermont, 2009). Almost all the airstrikes were aimed either at active military targets within the invaded region of Shida Kartli or against air bases and communications installations in the rest of the country.²⁶ Furthermore, airstrikes lack the physical staying power of a ground invasion; the Russian air sorties were contested by Georgian anti-aircraft defenses and their presence over Georgia was not constant in the way that a ground invasion might be. In the initial tests of my theory, I do not classify the regions that only received airstrikes as having directly experienced the war. I will, however, examine the potential effect of these airstrikes in later analysis.²⁷

The key difference theoretically between direct and indirect experiences is that direct experiences should be more likely to lead to changing the beliefs of individuals about the balance of power between Russia and Georgia in a way that is more negative towards Georgia's military power and more positive towards Russia's. Not all individuals might come to the same conclusion and some might over-learn from their experiences (Jervis, 1976), but in general those who experience the direct experience here of the Georgians losing should have a lower assessment of Georgia's military strength compared to others who only had indirect experiences. The primary independent variable in the analysis below will thus be potential direct experiences with enemy troops during the invasion and occupation based on an individual residing in the regions of Georgia that were invaded and occupied. The primary dependent variable will be beliefs relating to the relative power of Georgia compared to Russia, as seen through attitudes towards foreign policy.

²⁵One side effect of these attacks was a large forest fire near Borjomi sparked by Russian helicopters searching for Georgian tanks hidden in the forest (Felgenhauer, 2009).

²⁶The main exception to this may be the city of Gori in Shida Kartli which, by several accounts, received a large number of airstrikes during the war that hit civilian as well as military targets, though the extent to which this was intentional is unclear (Buchanan et al., 2009; Pukhov, 2010).

²⁷Three additional regions—Tbilisi, Kvemo Kartli, and Kakheti—are then included in the treatment if airstrikes are treated as direct experiences based on information from both Buchanan et al. (2009) and Pukhov (2010) that indicates that Georgian military bases in those regions including Shiraki (Kakheti), Tbilisi, Vaziani (Kvemo Kartli), and Bolnisi (Kvemo Kartli) were attacked. Classifying them as regions that directly experienced the fighting slightly increases both the effect size and precision of the estimate. See the Robustness Checks section below.

3.1.1 Consistency and Duration of Information from the Fighting

The duration of the initial invasion was relatively short, but the occupation afterwards extended from at least a few weeks in most areas into October for a few others (Chivers, 2008). This is a relatively short period of time then for beliefs to change, particularly since the majority of Georgians lived in regions that were not invaded or occupied by the Russians and thus only indirectly experienced the war. The greatest achievements of the Georgians appear to have been accurate artillery fire on Russian troops emerging from the Roki Tunnel at the start of the war, an ambush of some of the oncoming Russian forces just outside of Tskhinvali that was caught on camera, and downing several Russian planes, including a SU-22 strategic bomber (Felgenhauer, 2009).

4 Research Design

4.1 Case Selection

The 2008 Russo-Georgian War as a case presents several challenges in studying the effect of direct and indirect experiences with the war among civilians. First, it was a short war; combat operations lasted for only five days. This should increase the chances of failing to reject the null hypothesis of the effect of the “treatment” (direct experiences) in this case due to the relatively short amount of time that the treatment was administered. Second, the Russians tended to stick to urban areas and transportation routes during the course of their invasion, so not all of the Georgians in a given region would have actually received the treatment. Given the absence of individual-level data on who was directly in the path of the Russian invasion, the treatment effect itself will be difficult to untangle among all of the respondents in a given area that was invaded. This should again bias against finding a significant effect of the treatment. Finally, beliefs about relative power may be difficult to measure, especially at the individual level, as the average civilian is not usually asked to directly make comparisons of their own side’s military strength against an enemy. Overall, this seems like a hard case to find evidence of changes in beliefs about relative military power among the population.

But this case also has several advantages from a hypothesis-testing and external-validity perspective. As a largely conventional war between two coherent sides, it is easier to measure who

crossed whose borders and occupied what territory than in more ambiguous cases common to irregular wars. Even though there was some ethnic group intermixing within South Ossetia, the fighting and occupation in Georgia proper resulted in clear military front-lines and a known occupation zone within Georgia controlled by the Russians until they withdrew. The situation in Georgia is also practically relevant to several ongoing and potential future conflicts. A Russian invasion of other small states (or another invasion of Georgia) might unfold in a similar manner in the Caucasus, in Eastern Europe, or in the Baltics, which has led to particular attention paid to the results of the war by military analysts around the world.²⁸ Compared to hypothetical experiments or surveys that ask respondents to respond to an imagined conflict, this case has higher external validity since it represents a type of war that may very well break out again in the near future.

Another important factor in this case is that Georgia was a democracy, albeit a somewhat unstable and unconsolidated one at the time of the war with a Freedom House rating of “Partly Free” at the time the war broke out. This means that public opinion could have an effect then in holding the government accountable for its actions before, during, and after the war. The 2008 elections just before the war were described as being mostly free, albeit with some irregularities that were likely not fully intentional and not enough to change the outcome.²⁹ As a case then, Georgians could have some expectation that their opinion might matter and there was sufficient freedom of information that information about the war was available for the public to consume, albeit in a messy media environment.

4.2 Data and Dependent Variables

Perhaps the greatest advantage to using the 2008 Russo-Georgian War as a case though is good fortune in survey timing. A series of nationally representative surveys were conducted shortly before and after the war by the Caucasus Research Resource Centers (CRRC), a nonprofit, nonpartisan organization that conducts yearly surveys for the Caucasus Barometer opinion project as well as more specific surveys on various topics.³⁰ Each of these surveys was done with the intention of

²⁸In fact, during the war the Baltic states sent their leaders to Tbilisi in a show of solidarity with the Georgians against Russia. (Asmus, 2010, 205)

²⁹The full Congressional Research Service report on the 2008 elections in Georgia is available here: <https://fas.org/sgp/crs/row/RS22794.pdf>

³⁰The CRRC was founded in 2003 and receives funding from the Eurasia Foundation as well as various other organizations interested in social science research for the Caucasus region. See <http://www.crrccenters.org/> for more information. Driscoll and Maliniak (2016) use some of the same data in studying escalation dynamics. I thank Maliniak

providing a representative sample of opinion in Georgia on various topics and surveyed individuals in households within selected census units in each region of Georgia (Driscoll and Maliniak, 2016).³¹ Importantly, the disputed regions of Abkhazia and South Ossetia were *not* included in these surveys due to access issues. This is helpful since it limits the study's domain to only Georgians in areas controlled by the government and thus on one side of the war rather than potentially sweeping up both Abkhazian and South Ossetian residents who would have likely have been on the other side in the war.

All surveys were conducted in the form of in-person interviews by enumerators who attempted to follow-up if contact was not made at the initial time of survey. Two surveys, one (Survey 1) conducted five months before the war and one (Survey 2) two months after the war, will be the primary source of quantitative data for the remainder of this chapter. Building off the expectations outlined in the previous section, I review the relevant questions in each survey and develop specific hypotheses related to the responses to those questions. For Survey 1, I focus on potential significant differences in political beliefs or beliefs regarding Russia before the war occurred in the soon-to-be-invaded regions compared to the other regions within Georgia. For Survey 2, I focus on potential significant differences in beliefs regarding relative military power between the invaded regions and the non-invaded regions after the war occurred.

4.2.1 Survey 1: Before the War

Survey 1 was conducted in March 2008, just under five months before the war broke out.³² Though the main purpose of the survey was to assess parliamentary representation in Georgia at the time, several questions were included that are useful in assessing underlying beliefs about Georgia's relative strength to Russia. First, a question about the likelihood of war breaking out asked respon-

for providing a replication dataset that included elements of both Study 1 and Study 2 and for clarifying the identity and coding procedures for several variables. I also cross-checked their datasets with those provided by the CRRRC directly and found them to be largely the same except for some changes in the labels of certain variables.

³¹The exact methodology of these surveys varies, but this description from the 2008 Caucasus Barometer fieldwork report seems to be typical: "The survey sampling followed a stratified two stage sampling design. To ensure representativeness and to preserve comparability with previous Waves of the survey, the 2008 DI survey used 9 strata. Each country was divided into 4 geographical quadrants and the capital. Each of the 4 non-capital quadrants were divided into urban and rural strata. The number of PSUs in each stratum were selected proportional to the population of each stratum, according to census data in... Georgia." See: http://www.crrccenters.org/uploads/barometer_documentation/DI20200820Fieldwork20Report.pdf.

³²1538 interviews were conducted, though the exact number of respondents for each question varies in part because not all questions were given to all respondents in the survey. Some questions were rotated through different versions of the survey that were randomly assigned to smaller subsets

dents whether or not war was likely to break out over Abkhazia or South Ossetia in the next two years. Although not a direct indicator of expectations about relative military power, this question helps give some insight into whether or not individuals in different regions thought war was likely. Those who think war might have been more likely before the war might have different expectations about the likelihood of conflict again after the war, potentially also affecting estimates of the relative power of each side. Another question asked respondents to assess the importance of various potential budget priorities, with the budget for the military being one option and respondents asked how important they viewed spending on the military. Though neither of these two questions gets directly at the question of what respondents thought about Georgia's relative military power compared to Russia might be, they can help establish a baseline of whether or not differences existed with regard to expectations about the likelihood of war and opinions about spending on the military. In this case, being unable to reject the null hypothesis that there is a statistically significant difference between the invaded regions and the non-invaded regions in these opinions before the war suggests that these regions were not significantly different in terms of their beliefs about relative military power before the treatment was applied.

Null Hypothesis 1 [NH1]: There is no significant difference in beliefs about the likelihood of a forthcoming war between the invaded and non-invaded regions.

Null Hypothesis 2 [NH2]: There is no significant difference in the level of importance assigned to improving the military budget between the invaded and non-invaded regions.

4.2.2 Survey 2: After the War

Survey 2 was conducted in October 2008 just over two months after the war between Russia and Georgia ended.³³ The primary question of interest from this survey is a question in which respon-

³³Survey 2 was similar to Survey 1 in that it targeted respondents via the use of in-country enumerators who traveled directly to randomly-determined households (out of the 3143 targeted, 2471 responded and completed the survey for a response rate of just over 78%). Note, however, that Survey 2 was limited geographically to areas controlled by Georgia and deliberately did not survey some parts of Georgia with large groups of ethnic minorities. As Driscoll and Maliniak (2016) describe, "The sample was chosen to be representative of Georgian citizens who might vote against the [incumbent government], so no efforts were made to sample in Abkhazia, South Ossetia, or the non-Georgian ethnic enclaves." In general, none of these surveys sampled in Abkhazia or South Ossetia, so the only potential issue comes from the lack of sampling in the non-Georgian enclaves, which themselves are located in the South (Armenians and Azeris) far from the conflict zone. Following Driscoll and Maliniak (2016), I re-ran my analysis of Survey 1 to check to see if excluding these

dents were asked if they preferred spending more on defense to oppose Russia militarily or instead preferred spending the money on other services because Georgia could not defend against Russia anyways. Specifically, respondents were asked if they agreed more with “[the] Georgian government should keep spending money on the army so that country could be defended effectively in the future” or with “[the] Georgian government should redirect expenditures from the army to other public services, since our army will not be able to defend the country from the Russians anyway.”³⁴ The key part of this question is that it asks the respondents to consider the ability of Georgia’s military to defend the country against the Russians; if a respondent believes that the country cannot be effectively defended no matter how much increased spending by the government, then that implies that the relative power difference between Georgia and Russia is larger than if the respondent believes that the country could be effectively defended through more spending. This question also captures the guns-versus-butter trade-offs inherent in spending on military force—the addition of the “redirect” option forces respondents to consider not simply a general desire for more spending, but where spending should be allocated.

Hypothesis 1 [H1]: Respondents in invaded regions should be more likely than respondents in non-invaded regions to prefer to redirect expenditures from the army rather than challenge the Russians militarily.

A secondary dependent variable comes from a question about whether or not the respondent would give up the disputed regions in exchange for admission to NATO for its security guarantees. The question asked respondents to what extent they would consider supporting a hypothetical new political candidate for President of Georgia who sought to “formally re-draw the borders of Georgia to allow the territories of South Ossetia and Abkhazia to secede, so that he can more aggressively pursue NATO membership to secure Georgia.” The specific emphasis on security via membership in NATO in this question is key since it suggests that Georgia’s security would be most effectively secured by joining NATO, even at the cost of the disputed regions. That is, Georgia alone would not be strong enough to resist Russia and it would be worth trading-off two regions that most Georgians considered part of Georgia to be assured of security against Russia (IRI poll).³⁵

majority Armenian and Azeri areas changes the results significantly and did not find any substantive difference in the main results.

³⁴There was also an option that was recorded if the respondent did not accept either of the statements, but that was only coded if offered by the respondent.

³⁵Two polls by the International Republican Institute, one in 2007 and one in 2009, found that at both times “territorial

The promise of future security from Russian attacks—as opposed to attempting to take Russia on single-handedly again—should be more tempting to those who view the relative military balance of power as stacked against Georgia.³⁶

Hypothesis 2 [H2]: Respondents in invaded regions should be more likely than respondents in non-invaded regions to prefer to abandon the disputed regions in exchange for receiving the security of NATO membership.

These surveys have a few general limitations. First, they were conducted on different sets of individuals rather than the same individuals over time, so the data is not longitudinal. This means that any analysis must control for a number of demographic variables to help ensure that variances in samples between the surveys did not appreciably affect the results. Second, very few questions were held constant in wording across these surveys, so it is sometimes difficult to compare some of the responses to each other across the surveys. And finally, these questions are not direct questions about relative military power, though as discussed above they should be correlated with beliefs about relative military power. To address this final point, I will compare the changes in the responses to these questions with other questions about politics that do not have the same implications about relative military power. Though this will not on its own substitute for more direct questions, it can help determine if public opinion about politics more generally changes instead of the just the beliefs about military power.

4.3 Independent Variable: Invaded by Russia

The independent variable in both surveys is whether or not the respondent lived in a region that was invaded by the Russians. In both surveys, this is represented by a dummy variable for each individual respondent coded 1 for living in an invaded region and 0 for not. In Survey 1, 299 out of 1538 respondents (approximately 19.4%) lived in the invaded regions while in Survey 2, 385 out of 3143 respondents lived in the invaded regions (approximately 12.3%).³⁷ Refer again to Figure 1

integrity” was the 2nd-most important issue for Georgians behind unemployment. Data obtained via emails with the IRI.

³⁶A similar question administered to another subsection of the respondents asks if Georgia should give up seeking entry into NATO and closer ties with the West and instead seek closer relations with Russia, which provides an interesting point of contrast with this question. I include this variable in the robustness checks below.

³⁷This difference is likely due to Survey 2 oversampling within Tbilisi and other regions that were known to be more opposed to the current government in an attempt to understand how the war affected approval of Saakashvili among the opposition. See (Driscoll and Maliniak, 2016, 15).

(p.7) and Figure 2 (p. 11) for maps of these regions.

It is unlikely that every respondent in these invaded regions directly experienced the war, especially given the mountainous terrain in parts of these regions.³⁸ Thus, it is possible that the indicators for the invaded regions may understate the true effect of the treatment. As an illustration of this, in the region of Shida Kartli for Survey 2, the CRRC survey team was able to distinguish between some survey sites that were directly affected by the conflict and some that were not. Yet to keep uniformity between the pre-war and post-war treatments as much as possible, I have recoded all of those responses in the Shida Kartli region to be coded as affected by the invasion. Encouragingly, however, re-running the analyses with the original coding for this region leads to more precisely estimated results and to slightly larger estimated treatment sizes (see Appendix, Table 7).

Could the treatment effect be affected by internally displaced persons (IDPs) who fled the conflict-affected regions of the war to other parts of the country? Amnesty International reported in November 2008 that almost all the refugees from the 2008 war had moved back fairly quickly and most of the remainder were Georgians who formerly lived in South Ossetia and were concentrated in the capital of Tbilisi (Amnesty International, 2008).³⁹ If, however, refugees fled the invaded areas for regions that were not invaded, that would also stack the odds in favor of a null finding by adding “treated” individual respondents to unaffected regions.

5 Quantitative Analysis

This section proceeds in three steps. First, using data from Survey 1, I show that respondents in regions that were affected by the war were not significantly different from the rest of the country before the war began. Second, using data from Survey 2, I run the main statistical tests to measure the effect of directly rather than indirectly experiencing the invasion during the war on opinion about Georgia’s relative military strength compared to Russia. And third, I perform a number of robustness checks on the model specification using several alternative variables and looking more

³⁸Unfortunately the survey does not provide more detailed location data on respondents other than the region they lived in.

³⁹A number of Georgian refugees of the earlier 1990s wars in Abkhazia in particular still continue to live in Georgia proper, but are unlikely to have affected the results since most were concentrated in the capital city of Tbilisi and had adapted to living by that point.

Hypothesis	Expectation
Null Hypothesis 1	No difference between invaded/not invaded regions in expected likelihood of war
Null Hypothesis 2	No difference between invaded/not invaded regions in support for spending on military
Hypothesis 1	Invaded regions should support less spending on military due to not being able to compete with Russia militarily
Hypothesis 2	Invaded regions should be more willing to give up disputed regions in exchange for NATO protection

Figure 3: Brief Summary of Hypotheses. The first two are expected to show no significant differences to establish that there were not major pre-existing differences before the war on security-related issues, the other two are expected to show differences between the invaded regions and non-invaded regions on similar issues.

closely at region-by-region differences.

5.1 Pre-War Demographic Differences

The two regions of Georgia invaded by the Russians were Samegrelo-Zemo Svaneti and Shida Kartli. Samegrelo-Zemo Svaneti is across border from the breakaway region of Abkhazia on the Western side of Georgia along the Black Sea. The region of Shida Kartli is centered on the mostly flat central plain in the middle of Georgia south of the crest of the Caucasus Mountains. Table 1 shows some of the differences in demographics as of 2008 and 2002 between the invaded regions and the rest of Georgia. Note that the estimate for the population is from 2002 at the time of the last major census in Georgia while the other variables were updated based on Georgian governmental statistics in 2008 before the war began.⁴⁰

As Table 1 suggests, the two invaded regions are not exceptionally different compared to the rest of the country. Their average income is below the country average, but excluding the capital of Tbilisi they were quite close to the median among the other regions. Again, excluding the capital of Tbilisi, they also were about the median in terms of the percentage of the population that lived in rural areas. In short, these regions were not outliers from the rest of Georgia in demographic

⁴⁰The 2002 census data is available here: http://www.geostat.ge/cms/site_images/_files/english/census/2002/0320Ethnic20Composition.pdf. The next census in Georgia came in 2014—12 years after the 2002 census.

Region	Avg. Income/Month (USD\$)	Population	% Georgian	% Rural
Tbilisi	643.7	1,081,679	84.2	0.00
Imereti	287.1	699,666	98.5	53.7
Kvemo Kartli	511.2	497,530	44.7	62.5
Kakheti	224.6	407,182	83.9	79.2
Adjara	383.0	376,016	93.4	55.7
Samtskhe-Javakheti	290.7	207,598	43.4	68.4
Guria	273.0	143,357	96.9	73.8
Mtskheta-Mtianeti	375.7	125,443	92.9	74.3
Racha-Lechkhumi Kvemo Svaneti	311.6	50,969	99.2	81.2
Georgia (entire country)	519.8	4,371,535	83.8	47.7
Samegrelo-Zemo Svaneti	381.5	466,100	98.6	60.6
Shida Kartli	309.6	314,039	91.8	63.8

Table 1: Selected Pre-War Demographic Variables Across Regions. The two invaded regions are indicated at the bottom.

terms. To assess potential differences in political views, I turn to Survey 1, which was conducted in March 2008. The survey’s timing—just five months before the war broke out—can help answer the question of whether or not there was something fundamentally different about these invaded regions in terms of their political beliefs before the “treatment” of the invasion was applied.

5.2 Pre-War Differences in Beliefs

I conducted a series of simple linear regressions using Ordinary Least Squares (OLS)⁴¹ using Survey 1 with whether or not the respondent was in a region that was later invaded as the independent variable and a series of responses relating to beliefs about a potential future war as the dependent variable. Each of the dependent variables describes some expectation about a future war. Note that not all of the dependent variables were on all of the surveys; there were several versions of the survey with some of the questions given to a smaller random subsample. First, a random sample of approximately a quarter of all respondents ($n = 265$) was asked if they thought a war over South Ossetia or Abkhazia was likely to begin within the next two years. This variable was coded 1 if the respondent thought that at least one of the conflicts would resume and 0 if they did not think any of the conflicts would resume in the next two years. The second dependent variable asked the full sample ($n = 1294$) for the level of importance that respondents would place on spending on the

⁴¹Using ordered logit instead of OLS, as one might use because the dependent variable is ordinal and categorical does not appreciably change the results. See the Appendix, Table 4.

military for the next year. This was measured on a scale of 1-5, from “not important” to “very important.” The final dependent variable comes from the vignette about a scenario (n = 296) that most closely mirrors what ended up actually happening just a few months later: President Saakashvili sending troops into a disputed region and the Russians winning a war over the Georgians in response.⁴² This variable was coded on a 10-point scale from 1 (disapprove) to 10 (approve) of the president’s actions in that hypothetical scenario.

A number of control variables were included to account for differences in ethnicity and other demographic variables. First, the percentage of respondents who identified themselves as Georgian—as opposed to Armenian, Azeri, Abkhaz, or other minority groups—was included to account for potential existing differences among ethnic groups in attitudes towards Russia.⁴³ Second, measures of the levels of household income and education were included as well due to the potential differences between the regions in terms of those, which could affect both the interest in politics and the level of knowledge about foreign policy. Finally, a measure of the level of the respondent’s trust in Georgia’s President Saakashvili was included as well to account for pre-war political beliefs towards the Georgian government in particular.⁴⁴

5.3 Pre-War Results

The results, shown in Figure 4, suggest that the pre-war differences in beliefs about the likelihood of a future war, the need for additional military spending, and the approval of a President provoking a losing war with the Russians were not significant between the invaded regions and the non-invaded regions. Thus the null hypotheses for the two null hypotheses articulated above, *NH1* and *NH2*, cannot be rejected, which is encouraging since it suggests that there were not major differences between the invaded and non-invaded areas before the war broke out on key beliefs

⁴²The primary difference between this scenario and the actual scenario is that the hypothetical scenario imagined a conflict in Abkhazia while the actual scenario ended up taking place in South Ossetia in a shorter timeframe than the two weeks suggested in the scenario.

⁴³This is particularly relevant for two regions, as Table 1 shows: Kvemo Kartli and Samtskhe-Javakheti. In these regions, Azeri and Armenians, respectively, make up a large minority of the population.

⁴⁴In the results for the post-war analysis of Survey 2 below, I make sure to also control for all of these factors as well, though the specific scale and wording of the questions for each of them may differ slightly. For Survey 1, the controls are measured, respectively, as a dummy variable with 1 = Georgian, 0 = non-Georgian for ethnicity, a 1-8 level of income from lowest to highest income level for household income, a 1-7 level of educational achievement from lowest to highest, and a 1-5 level of trust in the President from full distrust to full trust.

Differences in Pre-War Beliefs from Survey 1

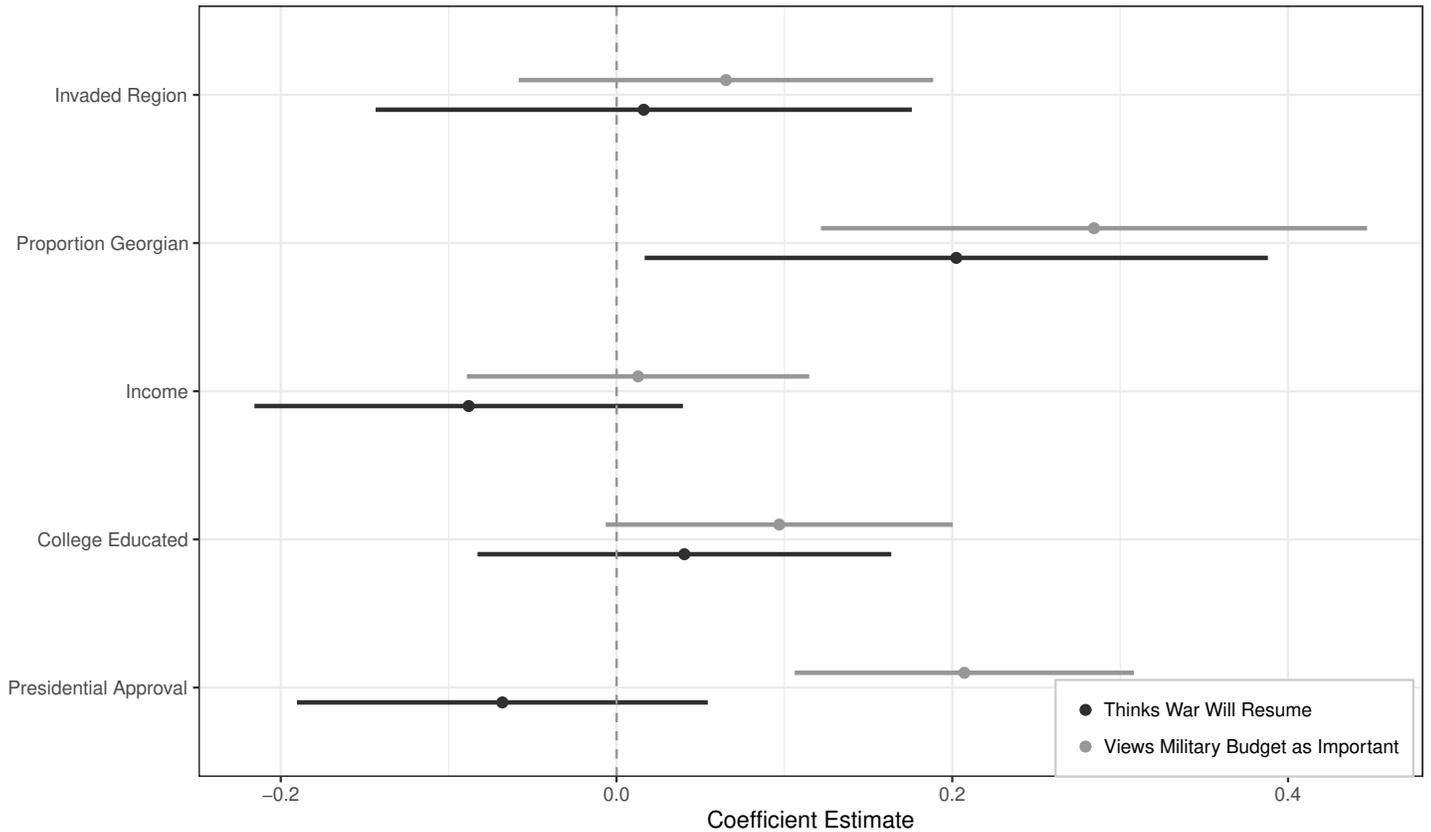


Figure 4: Pre-war comparison of invaded regions against non-invaded regions in terms of beliefs relating to future war and the importance of military spending using data from Survey 1. No significant difference between the invaded regions and the non-invaded regions is visible on these questions. All lines show 95% confidence intervals around the point estimates.

about war and spending.⁴⁵

5.4 Post-War Differences in Beliefs

In Survey 2, the independent variable is again potential exposure to the Russian invasion by living in one of the regions invaded by the Russians. The control variables and primary dependent variables, however, are all slightly different due to the surveys not including the exact same questions.

The primary dependent variable is the response to a question asking for the degree of agreement

⁴⁵Besides the Proportion Georgian, the Presidential Approval measure result is interesting to note; approval of the President does not have a significant effect on believing that war is likely to resume, but does significantly affect support for viewing spending on the military as important.

with spending more on the military in an attempt to compete with Russia (coded as 1 strongly agree or 2 for weakly agree) or not even attempting to compete militarily with Russia and re-directing the spending away from the military towards other purposes (coded as 4 for weakly and 5 for strongly).⁴⁶ A positive coefficient on the independent and control variables indicates that an increase in that variable then increases the desire to re-direct spending from the military, as outlined by *H1*.

A series of control variables similar to those employed in the pre-war survey were used as well in this analysis along with some additional control variables that were not available in the pre-war survey. The post-war survey did not include the exact same questions in many cases compared to the pre-war survey, but a series of control variables that includes Georgian ethnicity (coded 1 for Georgian and 0 for another ethnicity), employment (coded 1 for employed and 0 for unemployed), higher education (coded 1 for having completed at least a college degree of some kind and 0 for not), and approval of President Saakashvili (coded 1 for approve and 0 for not) were all included. Additional control variables available in Survey 2 include whether or not the respondent lived in an urban area (coded 1 for urban and 0 for not), the general age of the respondent (coded in groups of approximately 15 years each from 1 to 6, with 1 being the youngest and 6 being the oldest), and an indicator for whether or not the respondent had a family member serving in the Georgian armed forces or police (coded 1 for having one and 0 otherwise). All of these controls are used to help isolate political beliefs about military confrontation with Russia away from other demographic variables and attitudes that might have existed before the war.

5.5 Post-War Results

The results are presented in Figure 5. The two models were run using standard Ordinary Least Squares (OLS) regression. One model includes only similar controls to those run on the analysis of Survey 1 from before the war, the other includes additional controls that were unique to Survey 2 from after the war.⁴⁷ Since the primary variable of interest is ordinal, I re-ran the analysis using an ordered logit model. There was no substantive difference in the results for using the ordered

⁴⁶If respondents disagreed with both, they were coded as “neither” at 3. Including 3 as a middle-ground option does not change the results. See the robustness check section.

⁴⁷A graphical check for heteroskedasticity as well as a Breusch-Pagan test revealed no threat from heteroskedasticity in the results. See the Appendix, Figure 7.

Post-War Beliefs from Survey 2: Support for Lowering Spending on Army

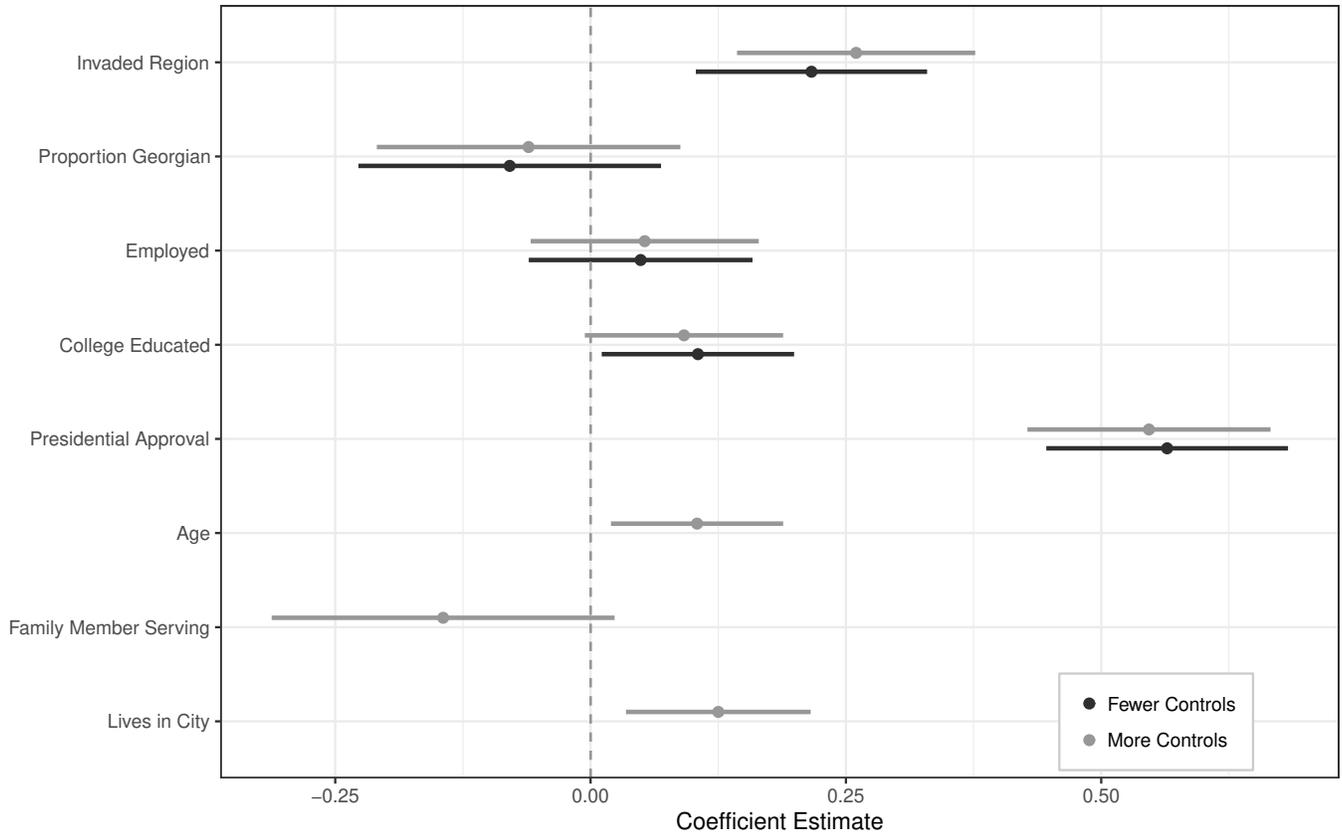


Figure 5: Main effects of the difference between the invaded and non-invaded regions on support for less spending on the military due to not being able to compete with Russia. Higher coefficients suggest support for less spending. Two models are shown, one with similar controls to the models used in Table 2, the other with additional controls. All lines show 95% confidence intervals around the point estimates.

logit or several other specifications (see Appendix, Table 6). In both of the specifications presented in Figure 5, the Invaded Regions indicator is significant at the $p < .01$ level and positive. This suggests that those respondents in the invaded regions were more likely to prefer not to compete with Russia militarily and instead support shifting funding away from defense compared to those respondents in the non-invaded regions. Hypothesis 1 (*H1*) is supported in this case.⁴⁸

The secondary dependent variable is whether or not the respondent would support a potential new presidential candidate who claimed that Georgia should give up trying to reclaim Abkhazia and South Ossetia in exchange for receiving the security of being a NATO member.⁴⁹ Note that this question was only given to a subset of the main sample in the survey, so the N is smaller (N = 528). This variable was coded from 1-4 with 1 being very unlikely to support that candidate to 4 being very likely to support that candidate. A positive effect would indicate more support for giving up the disputed regions in exchange for the security of NATO. As Table 2 indicates, there was also a significant and positive effect for the invaded regions indicator on this dependent variable in both OLS and an ordered logit. This suggests that those respondents in the invaded regions were significantly more likely to support giving up reclaiming the disputed region in exchange for the security of NATO than those respondents in the non-invaded regions. Thus Hypothesis 2 (*H2*) appears to be supported.

The results of some of the control variables are also worthy of comment. As might be expected, respondents who had a family member serving in the armed forces or police were less likely to support less spending, though the effect is just below the significance threshold. Older respondents were slightly but significantly more likely to support lowering spending on the military as were respondents from urban areas. One of the most striking results, however, comes from how much increases in approval of the President were associated with lowering support for spending on the military.⁵⁰ I investigate this finding as part of the robustness checks below.

⁴⁸Note that this is somewhat remarkable in that one might expect the regions that were just invaded to support more military spending for their own defense at the very least. I re-checked the coding on this variable and it appears to be correct and in line with the other variables.

⁴⁹It should be noted the the security rationale was explicitly given as the reason behind giving up contesting control of these areas in the question itself, Q33M.

⁵⁰Excluding this control variable from the results has almost no effect on the results, with the estimated coefficient on the invaded regions variable changing by less than .01 and the t-value for that same variable by .02. The other controls are also mostly unaffected.

	OLS	Ordered Logit
Invaded Region	0.31** (0.12)	0.76** (0.24)
Proportion Georgian	0.09 (0.16)	0.29 (0.30)
Age	0.03 (0.02)	0.07 (0.05)
Family Member Serving	-0.12 (0.16)	-0.21 (0.34)
Urban	0.14 (0.09)	0.27 (0.18)
Employed	0.10 (0.11)	0.28 (0.22)
College Educated	0.03 (0.09)	0.04 (0.19)
Presidential Approval	0.32** (0.11)	0.66** (0.22)
Num. obs.	528	528
Log Likelihood		-647.91

** $p < 0.01$

Table 2: Alternative Dependent Variable. Differences between the invaded regions and the non-invaded regions hold for this question, indicating that the invaded regions are significantly more likely to support abandoning the claims on the disputed regions in exchange for the security guarantees of NATO. Model 1 is ordinary least squares, Model 2 is ordered logit

5.6 Robustness Checks

5.6.1 Alternatives to the DV and other Variables

One possible alternative explanation for these results is that the dependent variables used are simply proxying for other political differences across regions. This could be the result of undetected differences between the regions before the war or as a result of the war affecting all kinds of political opinions beyond just beliefs about relative military power. To investigate this alternative, I conduct a robustness check to see if the difference between the invaded and non-invaded regions also applies to two other political belief variables: 1) a question asking whether Georgia’s future foreign policy should be more pro-Western or more pro-Russian and 2) prospective electoral support for Saakashvili. For the former, respondents were asked to choose between “strongly agreeing” or “agreeing” with one statement suggesting that Georgia should pursue closer ties with Russia compared to another statement suggesting pursuing closer ties with the West. Higher values mean more support for increased ties with the West, lower values mean more support for increased ties with Russia. For the latter question, the respondents were asked to choose how likely they would

	Pro-Western	Saakashvili Prospective Support	Excluding Tbilisi
Invaded regions	-0.07 (0.07)	-0.03 (0.03)	0.36*** (0.09)
Georgian	0.35*** (0.10)	0.01 (0.04)	-0.10 (0.13)
Age	-0.07*** (0.02)	-0.00 (0.01)	0.03 (0.02)
Family_serve	0.02 (0.11)	-0.09* (0.05)	-0.29* (0.15)
Urban	0.20*** (0.06)	0.18*** (0.03)	0.26*** (0.07)
Employed	-0.00 (0.07)	0.02 (0.03)	-0.05 (0.10)
Higher_ed	0.15* (0.06)	0.04 (0.03)	0.19* (0.09)
Pres_approve	-0.51*** (0.08)		0.93*** (0.12)
Num. obs.	1762	1522	1559

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 3: Results of several robustness checks. All are OLS regressions similar to those conducted before.

be (on a scale of 1-5) to vote for Saakashvili in a future election.⁵¹ Note that as described in the questionnaire, both questions make no mention of security concerns or of the wisdom of going to war with Russia again. As seen in Table 3, there was no significant difference between the invaded regions and the non-invaded regions in both support for pursuing closer ties with Russia compared to the West or in prospective voting for Saakashvili.

One further consideration is that including the capital city, Tbilisi, in the analysis could bias the results due to Tbilisi being so different from the rest of Georgia, as Table 1 showed it has higher levels of income, education, and urban-dwellers than the rest of Georgia. Excluding all respondents from Tbilisi from the dataset does not change the results appreciably from those initially reported.

⁵¹For this model, current approval of Saakashvili was removed from the control variables due to it being strongly associated with predicting future support for Saakashvili. Including the current approval of Saakashvili in this model and using current approval of Saakashvili as the dependent variable both do not change the results.

Region	Coef.	Standard Error	Controls
Tbilisi	-0.08	(0.06)	✓
Kakheti	0.26***	(0.07)	✓
Kvemo Kartli	0.25**	(0.09)	✓
Samtskhe Javakheti	-0.41***	(0.12)	✓
Guria	-0.35***	(0.09)	✓
Imereti	-0.11*	(0.05)	✓
Mtskheta Mtianeti	-0.42*	(0.18)	✓
Samegrelo	0.07	(0.08)	✓
Shida Kartli	0.38***	(0.08)	✓

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 4: Testing each region separately on support for decreasing military spending. The two invaded regions are at the bottom. Control variables are the same as in the “Fewer Controls” specification of Figure 5.

5.6.2 Regional-Specific Differences

It may be possible that pooling all of the regions that were invaded by Russia along with the regions that were not invaded together obscures some more individual-level differences among each of the regions. For instance, given the differences between the direct experiences with the contested Russian invasion from South Ossetia and the less-contested invasion from Abkhazia, it is possible that there might be differences in the level of the treatment on those invaded regions, with Shida Kartli receiving a stronger “dosage” of the treatment than Samegrelo-Zemo Svaneti. It is also possible that within the regions that were not invaded there might be some differences as well, perhaps depending on how they indirectly experienced the results of the fighting⁵² or based on some other unaccounted-for pre-existing difference in opinion and beliefs about the dependent variables that I had been unable to detect beforehand.

In a final set of tests, I break down all of the regions into separate dummy variables to investigate whether or not pooling the invaded and non-invaded areas masked some differences within them with respect to the dependent variable. Table 4 shows the impact of the dummy variable for each region on the main dependent variable of support for decreased military spending. The results of this region-by-region test suggest that the results for the invaded regions as a whole are being primarily driven by respondents in Shida Kartli. Although the other invaded and occupied region of Samegrelo-Zemo Svaneti does have a positive coefficient, it is not significant. This makes

⁵²For instance, some of the regions might have been affected by other aspects of the war including the mobilization of troops, the flow of refugees, and airstrikes.

sense, however, given that Shida Kartli saw more intense fighting while Samegrelo-Zemo Svaneti was essentially abandoned by the Georgian military without a fight. This implies that the occupation of territory, if done peacefully and without resistance, might not be as likely to change beliefs about relative power by itself.

The regions of Kakheti and Kvemo Kartli also cut against the rest of the non-invaded areas by showing significantly increased support for decreasing military spending.⁵³ There may be an explanation for this, however, that was hinted at above in the discussion of which regions directly experienced the war. These two regions, along with the invaded regions and the capital of Tbilisi, were the site of Russian airstrikes during the war (Pukhov, 2010).⁵⁴ Including those five regions that were affected by either airstrikes or the ground invasion as the independent variable and re-running the results yields a coefficient of .35 and a t-value of 5.7—essentially the same substantive effect and even more precisely estimated. This suggests that the airstrikes may, in fact, have had a similar effect to the ground invasion. See Figure 6 for a map that shows the new set of “treated” regions here in red.

Finally, the region of Mtskheta Mtianeti (represented in pink on Figure 6) is also worthy of attention. Mtskheta Mtianeti is the site of the only other possible mass invasion route into Georgia from Russia through the Darial Gorge. Thus, if the effect of the fighting in the war was simply limited to border regions that could envision a future invasion by Russia, one would expect respondents in Mtskheta Mtianeti to respond similarly to those in the regions actually invaded. But instead, Mtskheta Mtianeti respondents were significantly more likely to respond in the opposite direction from those in the invaded regions, though there were relatively few respondents from this remote region in the survey (N = 30). This suggests, however, that the effect is not simply an element of being in a potential invasion path, but actually experiencing the invasion.

⁵³Conducting the same test on the secondary dependent variable of abandoning the territories for NATO reveals a similar pattern.

⁵⁴Georgian sources are less clear about which areas were actually affected by all of the airstrikes, though it generally appears that the Russians simply targeted the areas with the largest airfields and communications equipment.

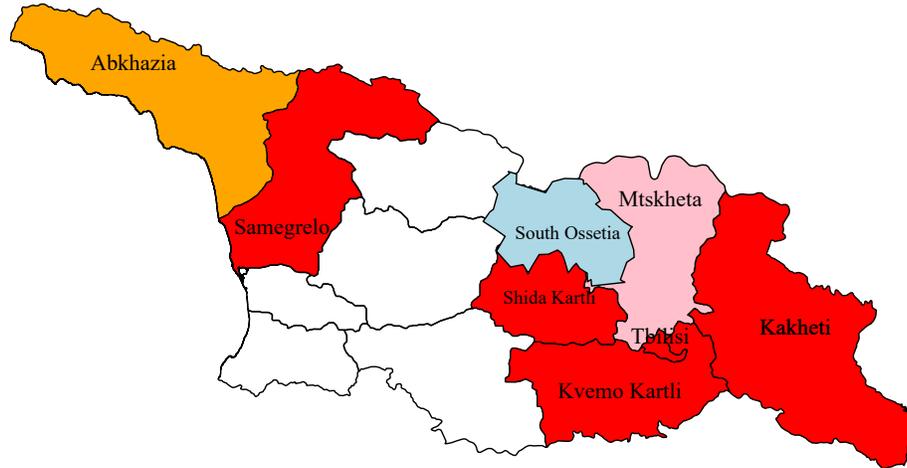


Figure 6: Additional regions of interest. Red in this figure indicates the regions of Georgia either invaded or hit with airstrikes by Russia during the war. Pink is the region of Mtskheta Tianeti.

5.7 Discussion of Empirical Results

The results of these quantitative tests suggest that, in general, there were significant differences in the beliefs of Georgians after the war in the regions directly affected by the war compared to those that were not directly affected by the war. Whether or not those differences were directly caused by the war cannot be said for certain given data limitations, but the evidence presented in this chapter suggests that there were not major differences in at least several beliefs relating to military spending and the likelihood of war before the war began. It also appears that the strongest driver of these differences appears to be from the respondents in Shida Kartli who suffered the most directly during the war and subsequent Russian occupation. But rather than wanting to go to war against Russia again to get revenge for the treatment by the Russians, those residents in Shida Kartli were in fact more willing than residents in other regions to abandon trying to compete with Russia militarily and more willing to give up attempting to restore control of the disputed territories in exchange for security guarantees. This finding may seem counter-intuitive, but makes sense in the context of these respondents learning more from their direct experiences during the war about the relative military power of Georgia—specifically, that it was far inferior to Russia.

Importantly, these differences between the directly affected and indirectly affected were limited

primarily to beliefs about the wisdom of confronting Russia over the disputed territories again. The war did not suddenly change the opinions of all the inhabitants of the affected regions on all topics, as the robustness tests show, but rather on one specific set of beliefs that were very relevant to those who lived on ground recently trod by Russian tanks. The suggestive results that airstrikes might also have similar effects to on-the-ground experiences with the fighting is also intriguing. Untangling the differential impact of airstrikes compared to occupations compared to fighting compared to attacks on civilians on beliefs about relative power remains a task for future work, but the strength of the result from Shida Kartli suggests there may be degrees of difference between the different types of direct experiences in the war. Future work may also want to examine the political impact of the war and these different experiences on voter behavior. Unfortunately, in the case of Georgia the next major country-wide presidential elections did not take place until 2013, well after other factors like the global financial crisis, later sanctions and border disputes with Russia, and other domestic political events had time to intervene.

5.8 Suggestive Electoral Evidence

One of the implications of the theory outlined at the start of this chapter and in previous chapters of this dissertation is that civilian beliefs about relative military power matter because they can use their positions in democracies to hold their leaders accountable. If the leaders hold different beliefs than their constituents about their side's relative military power, the citizens may seek to replace the leader, particularly in the aftermath of an unsuccessful war caused by the leader.⁵⁵ In this case, given that the Georgians lost the war, those Georgians who experienced the war more directly may be more likely to vote against the leader who led them into the disastrous war in future elections. President Saakashvili, however, had just won re-election in January 2008 and would not have to face the voters for another five years. Georgia as a whole did not hold another national election until 2012 when parliamentary elections removed Saakashvili's incumbent party from power. In 2013, Saakashvili was term-limited out and the presidential election led to a runaway victory for a reclusive billionaire from a different party who appeared to have a more moderate attitude towards Russia. Saakashvili's party's candidate finished a far distant second.

⁵⁵For an interesting recent set of experiments that show legislators seem to take into account the preferences of the public on foreign policy, see Tomz et al. (2018).

Did the experience of the 2008 Russo-Georgian War affect voting patterns in the 2013 election? Many events took place between the end of the war in August 2008 and the presidential election in early 2013, particularly the global economic downturn that, along with Russian sanctions against Georgia implemented in the aftermath of the war, hit the Georgian economy hard. Yet we can attempt to recover at least some suggestive evidence using the change in the percentage of votes for Saakashvili in 2008 and his party's candidate in the 2013 election.⁵⁶ Overall, Saakashvili won in 2008 with 53.7 % of the vote while his party's candidate in 2013 received 21.7 % of the vote, a decline of approximately 32 percentage points. In the invaded regions, however, support for Saakashvili's party fell by approximately 42.4 points. So though Saakashvili's party lost support all across the country, the effect may have been particularly strong within the regions that suffered the worst of the Russian invasion back in 2008.

6 Conclusion

This chapter sought to study how individual experiences during war affected beliefs about relative military power. Using a pair of nationally representative surveys from before and after the 2008 Russo-Georgian War, I found that survey respondents in regions invaded by Russia were more likely to oppose spending on the military to challenge Russia in the future and were more likely to support abandoning the disputed regions in exchange for security guarantees than those in regions that were not invaded by Russia. These results were robust to a number of different empirical specifications and, coupled with qualitative evidence of how events on the ground unfolded, suggest that negative direct experiences may have a more pacifying effect than indirect experiences in this case. Additional research is necessary to examine how long this effect may persist and to what extent more direct experiences could also lead to a greater desire for revenge and future conflict. Further research could also directly compare the effects of direct experiences to other types of conflict-management and peace-building strategies in the aftermath of a war to examine the degree of effectiveness of each. Finally, more detailed micro-level studies of individuals affected by war that focus on changes in beliefs about relative military power may also help reveal how individuals learn from a variety of different experiences and how the information gained from war is balanced against emotional responses.

⁵⁶The Presidential election should be a better measure than the far more complicated parliamentary elections wherein votes for parties and candidates are harder to tell apart across districts.

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APPENDIX

	War Resumes	Increase Mil Spending
Invaded Region	0.07 (0.33)	0.19 (0.15)
georgian_eth	0.86* (0.41)	0.64*** (0.18)
hh_income	-0.12 (0.09)	0.02 (0.04)
pres_approve	-0.09 (0.08)	0.13** (0.04)
ed_level	0.07 (0.10)	0.09 (0.05)
Num. obs.	265	1294

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 5: Logit and Ordered Logit analysis of Survey1 main variables (contrast with Figure 4). There is no significant difference between the results using Logit, Ordered Logit, and OLS.

	Ordered Logit	OLS
Invaded Region	0.42*** (0.11)	0.31*** (0.08)
georgian	-0.12 (0.15)	-0.12 (0.11)
employed	0.08 (0.11)	0.07 (0.08)
high_ed	0.19* (0.09)	0.17* (0.07)
Saak_approve	1.10*** (0.12)	0.78*** (0.08)
Num. obs.	2035	2129

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 6: Comparison of Main Results in OLS (as reported in Figure 5) versus Ordered Logit. No major differences are seen between the two models.

Studentized Breusch-Pagan test result for the linear regression reported in Figure 5.

BP = 0.77669, df = 5, p-value = 0.9785

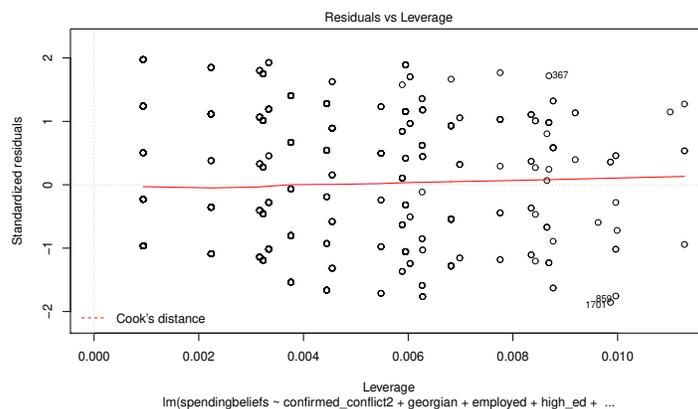


Figure 7: Graphical plot of the residuals from the main effects of the linear regression reported in Figure 5. There does not appear to be heteroskedasticity in the residuals.

	Original Model	Airstrikes Included in Treatment	More Precise Coding of Conflict
Affected Region	0.31*** (0.08)	0.35*** (0.06)	0.37*** (0.08)
georgian	-0.12 (0.11)	-0.08 (0.11)	-0.15 (0.10)
employed	0.07 (0.08)	0.04 (0.08)	0.07 (0.08)
high.ed	0.17* (0.07)	0.10 (0.07)	0.17* (0.07)
Saak_approve	0.78*** (0.08)	0.73*** (0.08)	0.78*** (0.08)
Adj. R ²	0.05	0.06	0.05
Num. obs.	2129	2129	2129

***p < 0.001, **p < 0.01, *p < 0.05

Table 7: Comparison of original model, model that includes airstrike-affected regions, and original model that include more precise coding of treatment in Shida Kartli.