Strongmen Cry Too: The Effect of Aerial Bombing on Voting for The Incumbent in Competitive Autocracies

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Abstract

How does exposure to aerial bombing influence voting for the target country's leadership? Despite the question's historical and contemporary relevance, there are only a few studies in the air-power literature arguing that strategic bombing produces a temporary rally effect but no subsequent political consequences other than political apathy. This article analyzes the effect of the 1999 NATO bombing of Yugoslavia on Serbian local elections using difference-in-differences identification strategy and identifies the effect of air strikes on the vote-share of Slobodan Milosevic's regime. The results show that the regime's vote-share is 2.6% lower in municipalities exposed to the bombing. Challenging prior studies, this finding demonstrates that retrospective voting applies to aerial bombing even in competitive authoritarian regimes.

Keywords: aerial bombing, elections, serbia, nato, competitive authoritarianism, difference-in-differences

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Introduction

How does exposure to aerial bombing influence voting patterns? Do voters tend to punish incumbents for policy failure? These questions are relevant for understanding the target country's post-war politics because aerial bombing remains one of the deadliest and most widely used military options for coercive bargaining (Pape, 1996; Horowitz and Reiter, 2001; Allen and Vincent, 2011). Existing knowledge provides few explicit predictions about the effect of aerial bombing on the incumbent's approval in the aftermath of air strikes; much less about whether air strikes shape voting patterns absent free and fair elections in a similar way they do in electoral democracies. Most studies ignore important variation within states even though leadership responsibility can vary tremendously on the sub-state level (Croco and Weeks, 2016). Those studies that examine the use of aerial bombing for coercive bargaining argue that punishment strategies produce a rally effect during the operation but no tangible post-war political consequences other than political apathy (Pape, 1996; Horowitz and Reiter, 2001; Slantchev, 2003). Other studies analyze how exposure to terrorist bombings influences voting for incumbents in democracies: some argue that such bombings shore up right-wing incumbents (Kibris, 2011; Getmansky and Zeitzoff, 2014), while others provide evidence to the contrary (Montalvo, 2011).

This study improves on the existing work in several ways. It examines the 1999 NATO bombing of Serbia, which lasted for 78 days, claimed 754 lives (Humanitarian Law Center, 2014), and damaged or destroyed over 1,000 objects (Smiljanić, 2009: 72–73). The magnitude of this event exceeds average terrorist bombings, offering a unique opportunity to analyze the effect of a prolonged exposure to violence on voting. This is the case of competitive autocracy that deters domestic upheaval in the aftermath of defeat only to lose in the elections. Competitive autocracy is a non-democratic form of government in which multiparty elections are subject to government manipulation through media censorship, voter intimidation, and fraud (Schedler, 2015: 1). While these regimes are non-democratic, they are also different from full-blown authoritarianism in that competitive authoritarians are unable

to eliminate elections or reduce them to a formality and prefer institutional harassment to physical elimination of political opponents (Levitsky and Way, 2002). The literature finds that Milosevic's government resembles competitive authoritarian regimes (Levitsky and Way, 2002; Schedler, 2015; Vladisavljević, 2016). Such cases as post-war Serbia are rare among the non-democratic governments because the military defeat usually unseats authoritarian leaders (Bueno De Mesquita and Siverson, 1995; Goemans, 2000).

Following retrospective voting theory (Achen and Bartels, 2008; Kayser and Peress, 2012),[1] this article argues that the electorate attributed the responsibility for the failure to remedy the negative economic consequences of the bombing to Slobodan Milosevic's regime. Analyzing the results of the local elections in 1992 and 1996 versus 2000 using the difference-in-differences (DID) identification strategy, this article shows that the incumbent's vote-share dropped in municipalities exposed to the bombing. The estimated effect of being bombed is a decrease of 2.6 percentage points in Milosevic's vote-share; in comparison, Milosevic lost the 2000 election by a 4 percentage points margin. Furthermore, the article finds that the bombing also led to a 3.8 percentage-point decline of Milosevic's junior coalition partner, the right-wing Serbian Radical Party (SRS), showing that the incumbent suffers as a result of policy failure irrespective of its ideology. The results also show that the bombing had no effect on voter turnout, ruling out a possibility that Milosevic's electoral decline was driven by the abstention of his voting base. Finally, this article demonstrates that the incumbent's vote-share was not driven by either population change or immigration.

These findings contribute to the theory of retrospective voting, suggesting that accountability mechanisms might apply even in non-democratic regimes. This study also contributes to the air-power literature: while punishment strategies may not be the most effective tool of coercion (Pape, 1996; Horowitz and Reiter, 2001; Slantchev, 2003), this article shows that aerial bombings could damage the regime politically after the war. Regarding the literature on the Kosovo war, this study corroborates anecdotal evidence by Byman and Waxman (2000) that NATO's selection of targets aimed to

1. See Healy and Malhotra (2013) for a thorough literature review.

undermine public support for the regime ultimately harmed Milosevic's electoral performance. But, contrary to Allen and Vincent (2011), who suggest that NATO's degradation of Milosevic's political structures weakened the regime's ability to perpetuate electoral fraud in the affected localities, this article finds that voters punished the regime for suffering the fallout from the bombing. Finally, this article contributes to an emerging literature on audience costs in post-war environment (Croco, 2011, 2015; Croco and Weeks, 2016). The local effects of the bombing are under-explored in this body of work, even though they occupy a prominent place in the literature's theories. Using a within-country research design, this article sheds more light on the mechanisms under which competitive authoritarians face punishment in the aftermath of war.

Voting in the Aftermath of Bombings

How does exposure to bombings affect voting for the incumbent? There are two strands of the literature that address this question: 1) general studies on the effect of war devastation on post-war public support for war-time leaders; and 2) specific studies on how terrorist bombings influence the government's vote-share.

More general studies on war devastation and post-war public support for the incumbent arrive at inconclusive findings. While Douhet (2019: 53–54) posits that strategic bombing may ruin the morale of target population and brew into a domestic uprising against the defending government, the air-power literature counter-argues that such punishment strategies are bound to fail as affected leaders can resist the domestic political consequences of bombing (Pape, 1996; Horowitz and Reiter, 2001; Allen, 2007; Allen and Martinez Machain, 2019). The latter holds that a more intense bombing campaign boosts domestic support for the incumbent irrespective of the nation's political system (Pape, 1996; Horowitz and Reiter, 2001: 25). For instance, the British public rallied around Churchill during the 1940 Battle of Britain while German workers continued to work in factories under heavy Allied bombing even after their disillusionment in government propaganda (United States Strategic Bombing Survey, 1947).

However, the air-power literature concurs that rallies are short-lived. For instance, President George H. W. Bush enjoyed public approval during and shortly after the 1991 Gulf War, but 18 months later he was voted out of office. A similar rally effect may have favored the Serbian leadership during the bombing and shortly after. But, the elections took place 15 months after the war was over, and the rally effect could have diminished, leading the public to embrace a retrospective assessment. Indeed, previous work shows that individuals in democracies are more sensitive to rise in local- than national-level war losses (Gartner et al., 1997; Gartner, 2004; Gartner and Segura, 2008). Glaurdić (2017a) shows that German communities that were more exposed to Allied bombing were more likely to vote for the Social-Democratic establishment for decades after the end of World War II, whereas German voters who experienced violence of World War I were more likely to reject the left and the right and support the successive Weimar governments (Glaurdić, 2017b).

Moreover, there is evidence of shift in support for wartime leaders even in non-democratic contexts. Driscoll and Maliniak (2016), for instance, find that Georgian respondents who lived in close proximity to areas impacted by the 2008 Russo-Georgian war had a more negative opinion of Saakashvili's regime. Other studies show that exposure to violence may empower incumbents. The electorate may, therefore, punish or reward leaders for their involvement in a war. Culpable leaders—senior state officials perceived to be responsible for the results of war—are particularly vulnerable to evaluation (Croco, 2011, 2015). Those who handle the war badly are sending a signal to their electorate that they are incompetent at selecting and prosecuting wars (Croco and Weeks, 2016). Mishandling or losing wars might damage the public support for the culpable leader in those areas where the population has suffered the most. Failure to protect the population from violent death and material destruction should influence public opinion more than government attempts to transfer culpability to their foes.

Some of these findings concerning democracies are echoed in the second strand of the literature on terrorist bombings and electoral politics. One segment of this literature finds that terrorist bombings favor the opposition parties in the elections. Bali (2007) and Montalvo (2011) show that the 2004 Madrid bombings mobilized pro-left opposition voters against the government. Another

segment of this literature employs valence theory, which posits that terrorist bombings tend to empower right-wing parties at the ballot box as they might be viewed as more competent in dealing with terrorism (Berrebi and Klor, 2008; Kibris, 2011; Getmansky and Zeitzoff, 2014). Kibris (2011) shows that the electorate rewards the Turkish nationalistic parties following attacks by Kurdish militants against the police. In the context of the Israeli-Palestinian conflict, Getmansky and Zeitzoff (2014) show that being in a range of rocket attacks increases the share of right-wing votes both for the opposition and government. However, there is also evidence that bombings are likely to harm the incumbent's vote-share because they fail to protect the population, as *retrospective voting theory* would expect (Montalvo, 2011).

Following retrospective voting theory, this study argues that voters might scrutinize the incumbent's performance retrospectively in the aftermath of aerial bombing even in a non-democratic context (Achen and Bartels, 2008; Kayser and Peress, 2012). In democracies, voters tend to evaluate the government's economic performance one year prior to the election (Arnold and Samuels, 2011), so governments could attribute misfortunes to the enemy, and exploit casualties for the rally effect (Pape, 1996). But these attempts may fail to win over the population that was exposed to such a devastating event as aerial bombing. Voters might observe negative results from the bombing (for example, high inflation, poverty, and unemployment) and remedial policies enacted by the incumbent (Healy and Malhotra, 2013). Once the affected electorate has formed its opinion about the incumbent, it may seek to attribute responsibility to war maladies to particular officials in power. In democracies, voters may translate their competence assessment into voting decisions, punishing poor performers in elections, seeking leaders that would be most competent for the job or falling prey to their own cognitive and emotional biases (Healy and Malhotra, 2009). The electorate might seek to replace the culpable leader in order to prevent them from repeating the mistake and deterring prospective leaders from similar reckless behavior (Bueno De Mesquita and Siverson, 1995).

A largely overlooked possibility is that aerial bombing may expose competitive authoritarian lead-

ers to similar scrutiny.[2] For these leaders, elections serve as the most effective tool to allocate the spoils of office among members of the elite (Gandhi and Lust-Okar, 2009).[3] Elections provide a legalistic façade to this process and legitimize the regime (Levitsky and Way, 2002). Competitive authoritarian regimes are essentially non-consolidated regimes that organize and compete in multi-party elections with a possibility of losing at the ballot box (Schedler, 2015). Therefore, winning elections is a priority in order to avoid elite defections and opposition unification (Reuter and Gandhi, 2011).

While such elections are fraught with irregularities, using electoral fraud may be insufficient to stay in power as many incumbents have learned in Yugoslavia (2000), Georgia (2003), Ukraine (2004), and Kyrgyzstan (2005). To ensure regime survival, the regime must provide public goods and services even in more authoritarian contexts such as Algeria, Egypt, Jordan, and the Palestinian territories (Lust-Okar, 2009). The control over these resources often tilts votes in favor of incumbents as voters seek to remain sufficiently close to the regime to reap patronage benefits (Gandhi and Lust-Okar, 2009: 408–409). The opposition voters, too, may not be immune to such distributive policies even if it means no change in power (Gandhi and Ong, 2019). Thus, failure to provide employment, timely salaries, and pensions may undermine state patronage networks and, ultimately, deplete public support for the regime.

This study argues that air strikes disrupt these essential services, and that, in turn, voters will tend to punish competitive authoritarians in the elections. This article contributes to understanding the link between air strikes and voting in several important ways. First, aerial bombings overshadow terrorist bombings in durability and magnitude allowing for a more direct test of the effect of violence on voting patterns. Second, the focus on a competitive authoritarian context sheds light on potential political changes in nearly one third of the countries with formal yet rigged elections.[4] This the-

2. The cross-national work on war outcomes and leadership tenure across different regimes arrives at inconclusive findings. For instance, Colaresi (2004) demonstrates that democratic regimes are most vulnerable to leadership turnover following a military defeat; Chiozza and Goemans (2011: 68–74) suggest that war outcomes affect leader tenure more acutely in autocracies; and other studies show that military defeat threatens the political survival of all leaders equally (Bueno De Mesquita and Siverson, 1995; Goemans, 2000).

3. This does not preclude the use of state-sponsored repressive measures such as media censorship, opposition harassment and the elimination of political opponents (Bhasin and Gandhi, 2013).

4. This figure originates from the Varieties of Democracy (V-DEM) Dataset and refers to the share of electoral autoc-

ory does not seek to explain how aerial bombing affects leadership tenure in full-blown autocracies such as Nazi Germany, Imperial Japan, North Korea, North Vietnam, or Iraq under Saddam Hussein because the government either does not organize elections or there is no de facto competition (Lührmann et al., 2018). Third, the article applies the DID empirical strategy to analyze the impact of the bombing on voting on the municipal level. The benefit of the focus on municipalities is that it captures where the regime is becoming vulnerable by analyzing how its electoral performance varies over space.

Political Context

The dissolution of socialist Yugoslavia in 1991/1992 heralded the emergence of parallel institutions in Kosovo under Ibrahim Rugova, a key Albanian political leader, in opposition to the nullification of Kosovo's political autonomy within Serbia, one of Yugoslavia's federal units. Following the 1995 Dayton Peace Agreement, Rugova's non-violent approach was challenged by the militant Kosovo Liberation Army (KLA) who launched attacks against Serb civilians and police stations in Kosovo. Initially, the United States tacitly supported the Yugoslav government against the KLA (Woodward, 2007). However, sporadic clashes had erupted into a full-blown insurgency by 1998, and the White House changed its course, putting a pressure on the warring sides to accept a cease-fire. After a US-brokered cease-fire deal failed (Crawford, 2001: 500), Western powers forced both sides to show up at the Rambouillet peace talks in early 1999. The talks broke down after the Serbian delegation refused to sign the final document that envisioned the stationing of NATO troops in the province as well as the right to a referendum vote within three years.

On March 24, 1999, NATO intervened on the KLA side and launched air strikes against the Yugoslav military, factories, transport and communications infrastructure, and government buildings. On June 9, the Yugoslav military representatives signed the Kumanovo Treaty agreeing to withdraw their forces from Kosovo in return for the cessation of the bombing and stationing of NATO troops

racies (32 %) among the regimes of the world in 2018. (See Lührmann et al., 2018: 9)

in the province. The conflict officially ended on June 10, 1999 with the adoption of UN Resolution 1244, which granted the deploying NATO troops a UN mandate and confirmed the sovereignty and territorial integrity of the Federal Republic of Yugoslavia, while also emphasizing "a political process designed to determine Kosovo's future status" (UN, 1999).

The NATO bombing dealt a strong blow to Yugoslavia's economy. The industrial production went down by 21 percentage points in 1999 compared to 1998, and by 40 percentage points compared to 1989 (Teodorović, 2000). Dozens of factories were either damaged or destroyed, including some owned by Milosevic's close associates (Hosmer, 2001: 67). NATO hit the country's two biggest oil refineries in Pancevo and Novi Sad, the Zastava car factory in Kragujevac, which employed around 15,000 workers as well as chemical, cigarette, drug, shoe, and light aircraft factories (Dobbs, 1999). The destruction of the industry left 230,000 workers jobless, with a further 2 million affected by this loss of employment (Teodorović, 2000). A group of 17 independent Yugoslav economists found an estimated $3.8 billion in direct damage excluding Kosovo, a formidable amount for a country under Western sanctions (Vreme, 2000). This report also found that Milosevic's government allocated $191 million to reconstruct bridges, roads, military, and industrial objects, mostly from Chinese loans. The government managed to reconstruct 35 bridges, replenish 15 percentage points of the electric power infrastructure, and recover 3.8 percentage points of the communications infrastructure (Vreme, 2000). At this pace, the government would have needed at least 15 years to restore its economy to the pre-bombing level (Hosmer, 2001: 68).

The destruction of the economy had a negative impact on the overall quality of life. According to an opinion poll from August 1999, the majority of respondents were afraid of permanent blackouts, loss of income, and rampant inflation (Vreme, 1999b). The collapse of the electric grid system led to blackouts and cold homes in the winter of 1999 (Vreme, 1999c). An average salary declined by 34 percentage points (Teodorović, 2000), while the inflation rate was the worst since the 1993 hyperinflation. The government ran out of money for pensioners—its core base of supporters in previous elections—who went on strike shortly after the end of the bombing (OCHA, 1999). Moreover, the

government owed salaries to army reservists who set up roadblocks in protest (Glas Javnosti, 1999). The regime introduced price controls and levied a 2 percentage points tax to alleviate national defense costs, the measures that would hit hard the remaining small business owners (Vreme, 1999a).

Some studies highlight the crippling impact of these economic consequences on the regime's public approval, forcing Milosevic to cave in to NATO's demands (Byman and Waxman, 2000; Hosmer, 2001); other studies emphasize the damage dealt to the group of individuals that fueled Milosevic's hold onto power as a major reason for Belgrade's decision to concede (Gray, 2001; Lambeth, 2001). Among the latter, Allen and Vincent (2011) suggest that the degradation of the ruling party's headquarters, pro-government TV and radio stations, and police forces may have weakened Milosevic's capacity to hold onto power. This theory rests on an assumption that Milosevic did not require mass popular support as he depended on a small coterie of economic elites.

However, existing anecdotal evidence shows that none of the regime's key members defected from Milosevic and that the repression accelerated after the bombings. While the NATO attack on the USCE business building, a headquarters of companies owned by Milosevic's family members, friends, and close political associates, harmed the interests of his close circle of loyalists, the regime offset the damage through illegal activities. The government distributed concessions for a state-sponsored heroine, cigarette, and gasoline transnational smuggling network to politicians, businessmen and security officials (Vasić, 2006). This might explain why the regime's leading figures remained loyal until Milosevic's electoral demise. Moreover, the degradation of the police forces did not weaken the regime's capacity for repression. Quite the contrary, the state repression was much deeper compared to the pre-bombing period and included blatant censorship of the remaining pro-opposition media; the harassment of academic staff, including many scholars of international repute; and political assassinations (Antonić, 2001). If the regime's reliance on its inner circle and repressive apparatus remained stable post-1999, then the subsequent political shift owes to the economic fallout from the bombing.

This article paints a picture of the incumbent faced with a difficult economic situation but lack-

ing policies to remedy the economic fallout. Due to the bombing, the provision of public services was severed. These conditions are favorable to retrospective voting, which expects voters to seek to reduce moral hazard on the part of the incumbent by punishing the ruling parties at the ballot box.

Research Design

The NATO bombing of Yugoslavia, which lasted from March 24, 1999 until June 10, 1999, was the largest air campaign in Europe since the bombing of Britain and Germany in World War II. The air raids lasted for 78 days and hit 108 out of 160 municipalities, excluding Kosovo and Montenegro. As Figure 1 shows, the bombing was spread out and largely aimed at military barracks, industrial facilities, transportation networks, and communication lines.

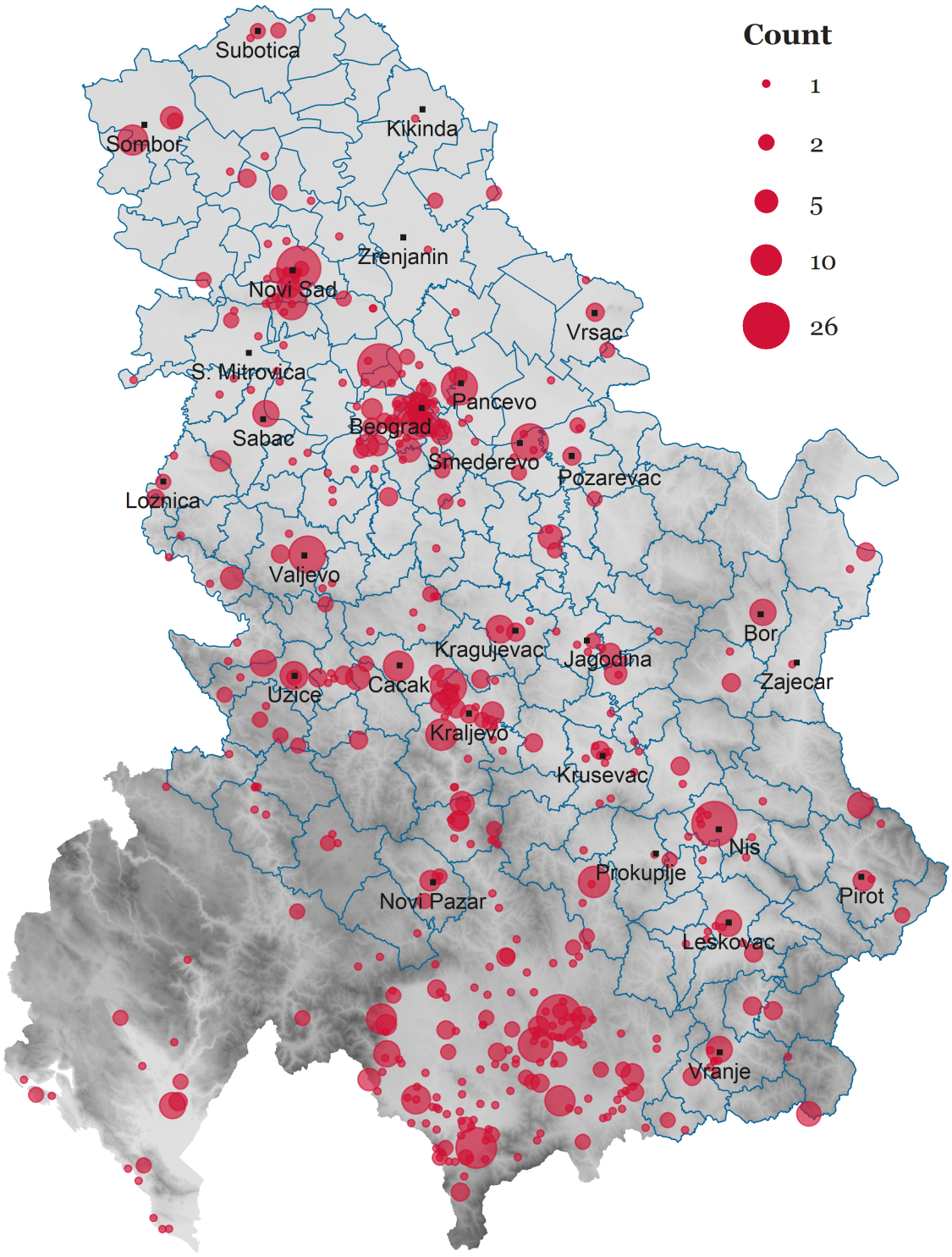
This article uses a novel dataset with information on over 1,000 targets in the Federal Republic of Yugoslavia, including the date, location, target type, and fatalities.[5] It is, by far, one of the most comprehensive and precise datasets on the NATO bombing of Yugoslavia.[6] The dataset was manually coded and includes information on the location of bombings as reported in the media from March 24 until June 10, 1999. In specific, the information on bombed municipalities mainly comes from then pro-opposition Serbian daily ("Glas Javnosti") and two major Serbian weeklies ("NIN" and "Vreme"). Reports from the state-owned news agency "Tanjug", the Human Rights Watch and the Database on casualties of the Humanitarian Law Center (HLC) in Belgrade were used for data triangulation as well as the identification of under-reported strikes against the army.

While the dataset does not necessarily include the universe of all strikes, the level of under-reporting is restricted to targets in Kosovo and especially attacks on military forces. The under-reporting in Kosovo originates from limited media presence in the province since the outset of the conflict. Because Kosovo is excluded from the analysis, this issue does not affect the results of this study. The under-reporting of attacks on military units is due to restricted access to the placement of

5. The majority of targets were military objects and forces (63%) followed by the industry (13%), transport infrastructure (9%), civilian (7%), communications facilities (7%), and other targets (1%).

6. Other essential datasets include Human Rights Data Analysis Group's dataset on killings in Kosovo (Ball, 2002), and Humanitarian Law Center's database of NATO bombing victims (Humanitarian Law Center, 2014).

Figure 1: Bombing Events (**red** dots), Major Serbian Towns (**black** squares with labels), and Municipal Boundaries (**blue** lines)



Yugoslav security forces in the field as well as their mobility in attempts to avoid NATO strikes. Some of these attacks were not reported by the media while others were reported but lacked information on the exact location. In the latter's case, the media vaguely referred to strikes in a "wider area" of a region or across a mountain range. Such cases were omitted from the analysis. Fortunately, such occurrences were rare, less than 10 or equivalently less than 1% of all strikes, and I was able to pin down a few unreported locations using the HLC database of casualties. Any remaining bias from the omission of strikes on military forces may not necessarily affect the inference because the focus of this article is on the bombing events that directly impact on the lives of voters.

The Voting Data

In the 1990s, elections in Serbia were held for assembly, presidency, and local councils at the federal, state, and local level, using the majoritarian or proportional electoral systems. Milosevic and his Socialist Party of Serbia (SPS) usually ran alone or in coalition with the Yugoslav Left (JUL), the party of Milosevic's spouse Mirjana Markovic. The opposition was roughly split into a right-wing Serbian Radical Party (SRS), and the democratic bloc composed of the Serbian Renewal Movement (SPO) under Vuk Draskovic, Democratic Party (DS) headed by Dragoljub Micunovic and Zoran Djindjic, The Civic Union of Serbia (GSS) under Vesna Pesic, and the Democratic Party of Serbia (DSS), a DS offshoot, presided by Vojislav Kostunica. These parties were the core members of the democratic bloc although coalitions would come and go by electoral cycle.[7] Because SRS defected to the regime twice—after the 1992 and 1997 elections—the democratic bloc was ultimately the main challenger to Milosevic. Analyzing electoral support for the Milosevic regime, therefore, requires that the democratic bloc ran in elections. This has occurred in the 1992 general elections on all levels, 1993 state assembly elections, 1996 local elections, and 2000 general elections on all levels.[8]

Another important condition for sample selection is that the voting system is more or less con-

7. There were exceptions to this rule because DS opted out from the DEPOS bloc in 1992/1993, while SPO left DEMOS in 1997.

8. In the 1990 state presidential elections, the democratic bloc had several candidates. The bloc boycotted the 1997 parliamentary elections except for Draskovic's SPO.

sistent across the electoral cycles so that the vote share can reasonably be modeled. Federal and state presidential elections could be the closest proxy for electoral support for Milosevic because of direct voting for the leader. Milosevic ran three times in presidential elections: he was a candidate in the 1990 election, and the incumbent running for re-election in the 1992 and 2000 elections. The opposition united around its candidate twice: in the 1992 and 2000 presidential elections,[9] but these were held on different levels.

The local elections offer the most consistent sample in terms of the democratic challenger and voting system. There is a total of three local elections (1992, 1996, and 2000) in which the united opposition participated under a majoritarian system. Except for the 2000 election, which used simple plurality, the local elections were based on the runoff voting. This article accounts for this discrepancy by analyzing the results from the first round of each local election. This approach is also reasonable given the electoral fraud in the second round of the 1996 election that triggered nationwide anti-government protests. Therefore, the main dependent variable is *Vote* and measures the vote-share for the party of Slobodan Milosevic in the local elections (1992, 1996, and 2000). Additional dependent variables, the vote-share for SRS as well as the Serbian democratic opposition, are measured in the identical fashion. *Vote* is transformed from percentages into a continuous measure, ranging from 0 to 1.

Elections under Milosevic entailed robust competition and participation, which was accompanied with fraud, intimidation, and restricted access to state-owned media for the opposition parties (Antonić, 2001; Goati, 2001; Pavlović, 2001). VDEM data on the free and fair elections index shows that the value for Serbia for 1992–2000 is stable at 1.6–2, which indicates that Serbian elections were a host to substantial competition and freedom of participation but with irregularities that had an unclear effect on the outcome of elections.[10] Similarly, VDEM data on Election Management Body (EMB) autonomy from government suggests that Serbian EMB had some autonomy in the observed

9. Both SPO and DS had their own candidates in the 1990 election. Two years later, the democratic bloc also known as DEPOS supported renegade Prime Minister Milan Panic who ran against Milosevic, but DS opted out.

10. See the data for *v2elfrfair_osp* in Coppedge et al. (2020).

period, but was also partial with ambiguous influence on the outcome of the elections.[11] These characteristics suggest that the fraud and conditions for fraud did not change much over time. At the same time, Milosevic's vote-share considerable fluctuated in the same period, to the point that he eventually lost the election despite the fraud. Absent a straightforward way to address the fraud on the municipal level, this article rests on the assumption that any effect of the fraud on the elections was not substantial enough to drastically alter the regime's vote-share.

The Bombing

To assess the effect of bombing on preferences, I construct *Bombed* variable, indicating whether a municipality was bombed or not. Cruise missile strikes and air raids were included if the source entailed information on the exact location of incident. To determine whether an attack falls within municipality boundaries, I intersected each point coordinate with the municipality polygon using a GIS intersection function from QGIS v. 3.6.3. If the point fell within the municipality polygon, then the municipality was regarded as bombed and coded 1 and 0 otherwise. Figure 2 shows the geographic breakdown on the municipality level (108 bombed versus 52 non-bombed).

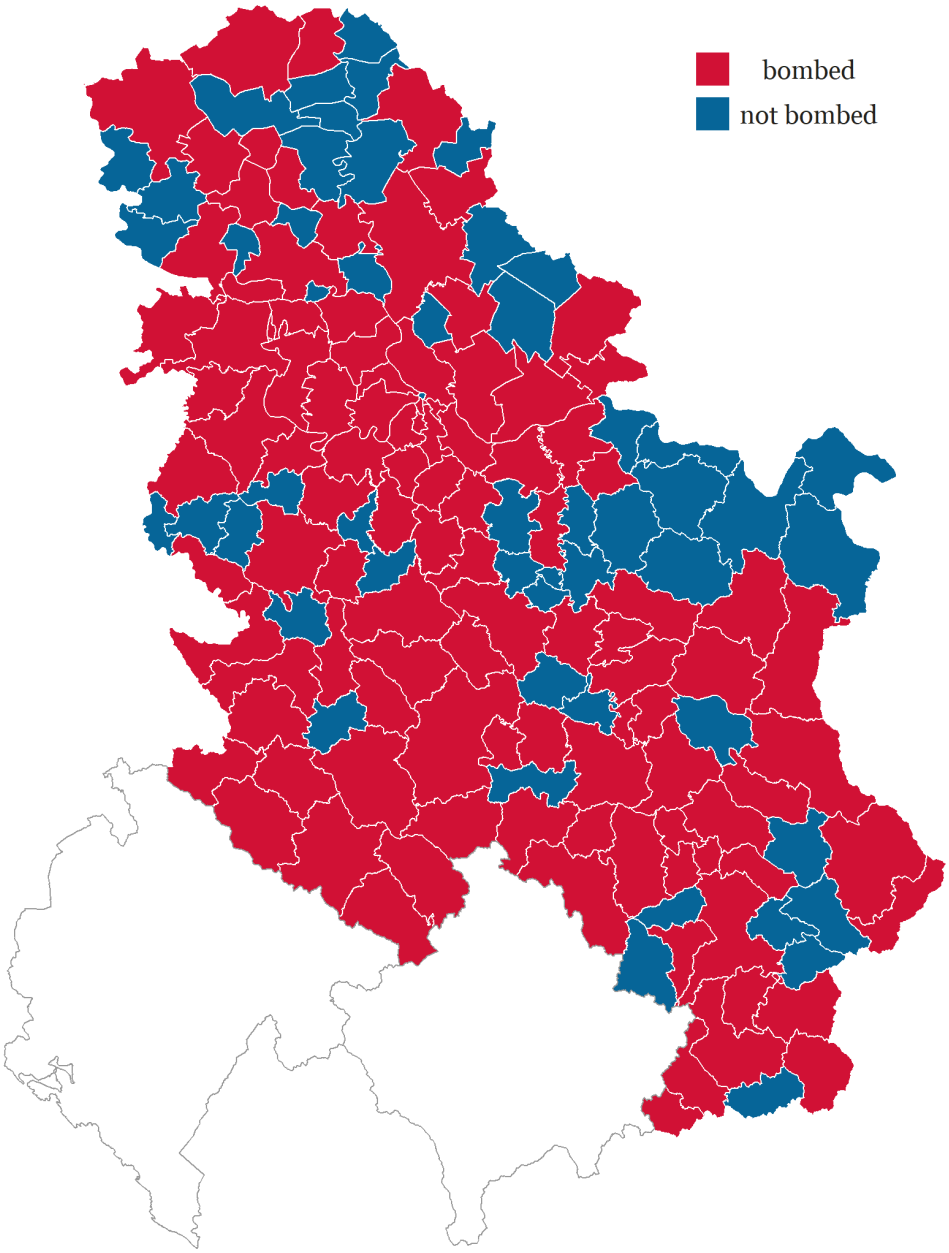
Control Variables

This article follows previous research on Serbian elections in the selection of control variables. Specifically, this article controls for the developmental, economic, and demographic features of Serbian municipalities (Milanović, 2004; Konitzer, 2008). All the control variables are pre-treatment and time-invariant as social and economic factors are very likely to be affected by bombings, and introduce post-treatment bias.

First, this article uses inhabitants per medical doctor and the share of refugees as proxies for development. The *Population per doctor* variable measures the number of inhabitants per medical doctor of a municipality, and originates from annual publications on Serbian municipalities (Serbian Statistical Office, 1996, 348–351; Serbian Statistical Office, 2000, 336-339). This indicator is the average value for 1995 and 1998. To control for the effect of the wars of Yugoslav succession on voting

11. See the data for *v2elembaut* in Coppedge et al. (2020).

Figure 2: Bombing By Municipality



patterns, this article includes the percentage of refugees in the total population of a municipality, which comes from Commissariat for Refugees and Migration of the Republic of Serbia (2018) and is labeled *Refugees (%)*. This measure is in decimal form, and is calculated by dividing the total number of refugees from former Yugoslavia in the period 1991–1995 by the 1991 population count for every municipality.

Second, this article measures the economic status of municipalities using information on unemployment. *Employed per 100,000 inhabitants* indicates the number of employed individuals per 100,000 members of the active population. This proxy is the average value for 1995 and 1998 and comes from the annual publications on Serbian municipalities (Serbian Statistical Office, 1996, 112–115; Serbian Statistical Office, 2000, 100-103). Finally, this article controls for the demographics using the share of minority population and females in the total population. *Minority (%)* shows the percentage of non-Serb inhabitants in the overall population in decimal form, while *Females (%)* denotes the percentage of females in the total population. Both covariates are presented in decimal form and originate from the 1991 population census.

Table 1: Average Values of Pre-Treatment Variables by Bombing

	Not bombed	Bombed
Employed per 1000 inhabitants	211	240
Population per doctor	754	578
Refugees (%)	5.1	6.2
Minorities (%)	22.4	19.3
Females (%)	50.6	50.6
Urban population (%)*	32	43
Population ages 20-34 (%)*	18.1	19.3
Illiterate (%)*	4.7	4

* Values are from the 1991 census. Excluded from the main analysis.

Table 1 displays the average values of the pre-treatment variables used to compare bombed versus non-bombed municipalities. The values are similar across the affected and non-affected communities especially regarding the demographic features (illiterate and young population, females, minorities and refugees). Some developmental variables introduce a certain imbalance among the municipali-

ties. The employment rate and the share of urban population are higher in bombed municipalities, but not markedly. Municipalities that experienced bombings have fewer people per doctor, implying a higher level of development. Although these variables are not perfectly balanced, many bombed municipalities are similar to non-bombed municipalities. Additional tests show little association between being bombed and the developmental variables.[12]

Empirical Strategy

The main identification strategy of this article is to estimate the effect of bombing by comparing the changes in electoral outcomes over time between municipalities that were bombed and municipalities that were not bombed, using DID identification strategy. This specification estimates the effect of bombing, a non-randomly assigned treatment, by comparing the regime's vote-share in municipalities that were bombed to municipalities that were not bombed, using pre-bombing local elections data (1992, 1996) and post-bombing elections data (2000).

The treatment in this study yields the effect on the voting that results from being exposed to the bombing. Therefore, the linear model structure is as follows:

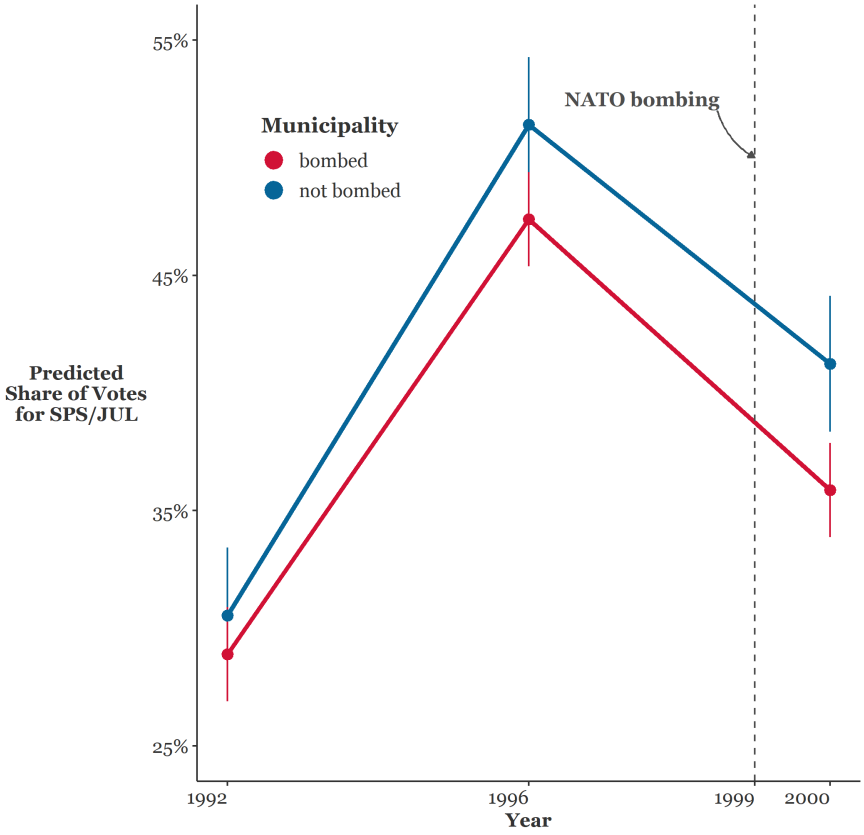
$$Y_{mgt} = A_m + B_t + cX_{mgt} + \beta I_{gt} + \varepsilon_{mgt},$$

where *m* denotes municipalities, *g* indexes groups, that is, bombed or non-bombed, and *t* indexes time. Y is the outcome variable, that is, the share of votes for the incumbent by municipality; A are the district fixed effects for every municipality;[13] each period has its own fixed effect, represented by B; cX are municipality-level, pre-treatment, and time-invariant controls to assure that these are not influenced by the treatment; and βI is a dummy equaling 1 for bombed municipality in the after period (otherwise it is zero); and ε is the error term. This article estimates the parameter β. The esti-

12. Table A4 (see Appendix) shows that only population per doctor is associated with bombing. In Table A5 (see Appendix), this variable is removed and the full model re-run but there is no change to the bombing coefficient.

13. Due to a high number of municipalities the models with municipality fixed effects are unable to converge, requiring the use of district fixed effects. A district (*okrug* in Serbian) is the administrative unit one level higher than the municipality. There are 25 districts, including the Belgrade district, which serves as the base value in all the models.

Figure 3: Adjusted linear prediction of voting for pro-government parties with mean point estimates and 95% confidence intervals



mate of this parameter should be negatively associated with vote-share for the incumbent in order to demonstrate that Milosevic lost votes in municipalities that were bombed compared to municipalities that were not bombed.

DID method yields more reliable estimates if the difference between the bombed and non-bombed municipalities is constant over time. The predicted probabilities based on a bivariate model of voting as a function of an interaction term between the bombing and election year support this expectation. Figure 3 depicts parallel trends in the observed electoral outcome for the two groups of municipalities. Although the gap between the treated and controlled municipalities widens between 1992 and 1996, their respective intervals do not overlap only in 2000, indicating no discernible effect of the bombing on regime's electoral performance prior to 1999. The difference between treated and

controlled municipalities started to emerge in 1996. This is because key Serbian opposition parties managed to coordinate their efforts in the 1996 local election when they formed the Zajedno coalition. This coalition won mayoral seats in several major towns and forced the regime to concede defeat following month-long rallies in the aftermath of voter fraud.

While the polls conducted by the Institute of Social Sciences corroborate a nationwide decline in public support for the regime following the 1996 protests, it was by no means a watershed moment in Milosevic's electoral performance. In fact, Milosevic's public approval doubled in 1998 compared to 1997 with the onset of the KLA insurgency in Kosovo and mounting Western pressure on Belgrade,[14] which could be attributed to the rally effect. It is only in the aftermath of the bombing that Milosevic's public standing reached its lowest point. Following the emergence of the united opposition bloc in January 2000, Milosevic's public approval slightly increased but short of the pre-1999 level.

Results

Main Findings

Table 2 displays the effect of being bombed on the incumbent's vote-share. The findings provide evidence that the bombed municipalities are different from non-bombed municipalities with an estimated negative effect of being bombed on Milosevic's vote-share. I begin with a base model without controls in column 1. The coefficient of -0.026 for *Bombed* $\times$ *Year2000* indicates that the government's vote-share decreased by 2.6 percentage points in municipalities that experienced bombing. Column 2 features the main model specification. The estimated coefficient of being bombed preserves the direction and effect size despite the inclusion of additional covariates. Although small in size, this point estimate has a potentially relevant magnitude. The median share of votes for Milosevic in the 2000 election was 37 percentage points versus 40 percentage points for the opposition in bombed municipalities, and 41 percentage points for Milosevic versus 34 percentage points for the opposition in non-bombed municipalities. If the bombing had not occurred, then the margin could

14. See Figure A2 in the Appendix.

have been even narrower, perhaps even tilting the results in Milosevic's favor.

Table 2: Linear regression models (DV: Vote-share for the incumbent)

	DV: Milosevic's vote-share			DV: Radical's vote-share
	(1)	(2)	(3)	(4)
Bombed × Year2000	−0.025*	−0.026*		−0.038**
	(0.012)	(0.012)		(0.010)
Bombed × Year1996			−0.022	
			(0.019)	
Bombed	−0.010	−0.006	0.001	0.023**
	(0.014)	(0.015)	(0.015)	(0.008)
Year2000	0.099**	0.099**		−0.080**
	(0.009)	(0.010)		(0.009)
Year1996	0.193**	0.192**	0.207**	−0.113**
	(0.009)	(0.009)	(0.016)	(0.008)
Employed per 100,000 inhabitants		−0.0003	0.001	−0.001
		(0.004)	(0.005)	(0.002)
Population per doctor		−0.001	−0.011	−0.031
		(0.053)	(0.057)	(0.017)
Refugees (%)		−0.011	−0.008	0.428**
		(0.120)	(0.135)	(0.065)
Minority (%)		−0.135*	−0.131	−0.055*
		(0.067)	(0.075)	(0.022)
Females (%)		−1.304	−1.438	−0.713
		(1.121)	(1.287)	(0.476)
Constant	0.238**	0.920	0.981	0.548*
	(0.019)	(0.589)	(0.675)	(0.244)
Observations	480	477	318	463
Adjusted R^2	0.593	0.612	0.627	0.556
F Statistic	25.896**	23.711**	17.624**	18.554**

Note: Reported are coefficient estimates with robust standard errors clustered on the municipal level in brackets. All models include district-level fixed effects. P-value: *p<0.05; **p<0.01

Column 3 returns to the parallel trend assumption, which is the fundamental assumption for the identification of the DID effect. To examine this hypothesis, I run a placebo experiment. I estimate

the basic specification on a placebo bombing taking place in the year of 1996. For this estimation, I discard the year of 2000 from the data. If the parallel trend assumption holds, then the results should show that the coefficient for *Bombed* $\times$ *Year1996* is not different from zero. Column 3 displays the results of this estimation and the main finding is that the coefficient on the placebo bombings is indistinguishable from zero. The similarity of the coefficient estimates for controls in columns 2–3 is also present.

Retrospective voting theory expects every member of the ruling coalition to lose votes for policy failure despite their ideology. The radical party was the member of the Milosevic government on several occasions, most notably during the bombing. If the theory holds, then the radicals should also experience a drop in their vote-share and defy the alternative expectation from valence theory that right-wing parties should benefit from security salient issues even when their own electorate is exposed to violence. Table 2, column 4, shows the effect of bombing on the share of votes for the radical party using the main model specification. The results demonstrate, in congruence with retrospective voting theory, that exposure to bombing has a negative effect on SRS. The radical party loses an additional 3.8 percentage points in municipalities that were bombed. Furthermore, the estimated negative effect of being bombed is not substantially higher for SRS compared to Milosevic's party. This result demonstrates that other members of the government equally suffer at the ballot box for the failure to enact remedial policies in the wake of aerial bombing irrespective of their ideology. The democratic opposition coalition experiences a minor increase in its vote-share in municipalities exposed to bombing, but this effect is indistinguishable from zero.[15]

Another possibility is, as Allen and Vincent (2011) argue, that NATO's destruction of Milosevic's political structures weakened the regime's ability to pursue electoral fraud. To test this mechanism, the bombing variable is re-coded to include only attacks against the communications, government, and police targets. This measurement is then plugged into the full model specification from Table 2. The results demonstrate no statistically meaningful effect of the coefficient measuring the targeting

15. See Table A2 in the Appendix.

of political structures.[16]

Changes in the Composition of the Electorate

Does Bombing Influence Voter Turnout?

The decline in pro-Milosevic votes as a function of the bombing could be related to fluctuations among the pro-regime voters and abstainers. One alternative mechanism to retrospective voting is that the bombing encouraged pro-regime voters to abstain from voting in the election. In turn, a lower turnout led to the drop in the pro-Milosevic vote-share. For instance, some erstwhile supporters could have refused to back Milosevic because they became dissatisfied with the ailing economy in the aftermath of the bombing; others were perhaps disillusioned nationalists who decided to abstain from voting because Milosevic lost Kosovo. To rule out this mechanism, the bombing should have no effect on voter turnout. To analyze this possibility, I re-run the model specification from column 2 in Table 2 using voter turnout for every local election (1992, 1996, and 2000) as the dependent variable. The results reported in Table 3 column 1 show no effect of being bombed on turnout. The coefficient estimate for being bombed is positive but not different from zero, indicating that the bombing did not affect the overall voter mobilization.

This finding, nevertheless, does not eliminate the possibility that residing in the affected municipality encouraged abstention among the pro-Milosevic voters. The bombing could have led to changes in the turnout among Milosevic's supporters, resulting in a lower vote-share. To rule out this possibility, the model should have no effect on turnout and Milosevic's vote-share combined. I re-estimate the main specification using the share of votes for Milosevic multiplied by voter turnout as a dependent variable. Column 2 reports the effect of being bombed on Milosevic's vote-share multiplied by voter turnout. The coefficient estimate for being bombed is again positive but not different from zero, indicating that the bombing did not affect the voter mobilization of Milosevic's supporters.

16. See Table A3 in the Appendix.

Table 3: Linear regression models of electorate changes

	DV: Turnout	DV: Turnout × Milosevic's vote-share	DV: Milosevic's vote-share	
	(1)	(2)	(3)	(4)
Bombed × Year2000	0.015	−0.013	−0.026*	−0.026*
	(0.009)	(0.010)	(0.012)	(0.012)
Bombed	−0.023**	−0.015	−0.006	−0.006
	(0.009)	(0.012)	(0.016)	(0.015)
Year2000	−0.013	0.070**	0.099**	0.099**
	(0.008)	(0.008)	(0.010)	(0.010)
Year1996	−0.072**	0.114**	0.192**	0.192**
	(0.008)	(0.007)	(0.009)	(0.009)
Employed per 100,000 inhabitants	0.004	0.002	−0.0002	−0.0004
	(0.002)	(0.003)	(0.004)	(0.004)
Population per doctor	−0.028	−0.015	−0.0002	−0.002
	(0.021)	(0.042)	(0.046)	(0.051)
Refugees (%)	−0.073	−0.047	−0.017	−0.009
	(0.085)	(0.094)	(0.130)	(0.121)
Minority (%)	−0.167**	−0.149*	−0.133	−0.136*
	(0.038)	(0.060)	(0.076)	(0.067)
Females (%)	−0.640	−1.418	−1.289	−1.301
	(0.616)	(0.887)	(1.091)	(1.126)
Population change (1998-2001)			0.016	
			(0.170)	
Displaced from Kosovo (%)				−0.053
				(0.226)
Constant	1.085**	0.922*	0.913	0.921
	(0.315)	(0.467)	(0.572)	(0.590)
Observations	477	477	477	477
Adjusted R^2	0.413	0.543	0.611	0.611
F Statistic	11.145**	18.122**	22.964**	22.967**

Note: Reported are coefficient estimates with robust standard errors clustered on the municipal level in brackets. All models include district-level fixed effects. P-value: *p<0.05; **p<0.01

Is Milosevic's Vote-Share Affected by Population Change?

Another potential objection to my argument could be that the composition of municipal population shifts in the aftermath of the bombing, affecting the vote-share for the incumbent party. For example, a proportion of elderly persons who were identified as Milosevic's staunchest supporters might have died between 1998 and 2000. Additionally, there could have been an inflow or outflow of municipality residents in the same period, changing the composition of the electorate. Apart from accounting for the refugee influx in the follow-up to the bombing, my previous estimations do not consider this possibility.

To rule out the possibility that population change rather than the bombing influenced the incumbent's vote-share, there should be no statistically meaningful relationship between population change and Milosevic's vote-share. I account for this possibility using the percentage change in municipal population between the year of 1998 (one year prior to the bombing) and 2001 (one and a half years after the bombing). Information on the population for 1998 is an official estimate of the Serbian Statistical Office, taking into account the natural change of the population (Serbian Statistical Office, 2001: 93–97), while the 2001 data originate from the 2002 census. Column 3 in Table 3 reports the regression results of the main specification with an estimate for population change. The coefficient for population change is small and positive but not different from zero. In contrast, the effect-size of the bombing coefficient estimate shows that municipalities exposed to bombing experience a 2.6 percentage point decrease in the incumbent's vote-share.

Accounting for the effect of net migration on the incumbent's vote-share is more difficult because Serbian authorities did not publish information on resident movement for the observed period. While the movement of Serbians outside of their municipal residence to a foreign country was strongly limited due to Western sanctions during the period 1998–2000, there is no information about the inter-municipality movement more than an observation that rural population gravitates toward towns. The only publicly available movement of people concerns the influx of internally displaced persons (IDPs) from Kosovo in the aftermath of the bombing. The data on 187,302 IDPs was

compiled by the Commissariat for Refugees and Migration of Serbia in 2000 and is broken down by municipality (Commissariat for Refugees and Migration of the Republic of Serbia, 2018). The use of these data rest on a strong assumption that IDPs from Kosovo constitute the major population inflow. The expectation of my theory is that this effect does not affect voting patterns. I measure *Displaced from Kosovo (%)* as the percentage of the IDPs in the total population for every given municipality. This covariate is included in the main specification in column 4 of Table 3. The results show that the coefficient estimate for IDPs has a small, negative, but non-substantial effect on the incumbent's vote-share. Simultaneously, both the direction and effect-size of the bombing coefficient are preserved: municipalities exposed to bombing experience a 2.6 percentage point decrease in the pro-government vote-share.

Taken together, these results produce several implications. First, there is evidence that incumbents are punished for policy failure when their constituency is exposed to aerial bombing because Milosevic's vote-share dropped in the 2000 election compared to the 1992 and 1996 elections. Second, any member of the incumbent coalition irrespective of their ideology will also lose votes. The radical party experienced a drop in vote-share despite being a right-wing party. Third, alternative mechanisms are ruled out: the bombing does not have a statistically meaningful effect on turnout and proxies for population change are not associated with the incumbent's vote-share. These results are consistent with retrospective voting theory: the incumbent is poised to lose votes if they fail to remedy the negative consequences of aerial bombing.

Conclusion

This study investigates whether aerial bombing affects the election results of competitive authoritarian regimes by modeling the vote-share for Slobodan Milosevic's regime both before and after the 1999 NATO bombing. The bombing of Serbia provides an unparalleled opportunity to examine the public's tolerance for paying the costs of war in a competitive authoritarian setting. This study demonstrates that competitive autocratic leaders suffer political consequences for poor war

outcomes. It runs against the expectation that mixed regimes are bound to be forcibly removed in the wake of military defeat rather than at the ballot box (Bueno De Mesquita and Siverson, 1995; Goemans, 2000; Colaresi, 2004; Chiozza and Goemans, 2011). While this article does not rule out the possibility that punishment strategies are generally ineffective tools of coercion (Pape, 1996; Horowitz and Reiter, 2001), it demonstrates that aerial bombardment may harm the strongmen politically in the post-war context.

The results indicate that the NATO air strikes decisively tilted Serbia's post-war voters away from the regime. As predicted by retrospective voting theory, affected municipalities to vote for Milosevic in the post-bombing election. Perhaps most surprising, and against previous held beliefs in valence theory, the bombing had also a negative effect on the right-wing radical party. In addition, the results show that the bombing had no effect on voter turnout alone or in combination with pro-Milosevic votes. This implies that the destruction did not encourage pro-government voters to abstain at a critical time for the regime. Ultimately, the models show that certain changes in the population composition also had no effect on Milosevic's vote-share.

The picture that emerges from this analysis is one of war bringing political changes even to authoritarian regimes with competitive elections. These results are in line with Reuter and Gandhi (2011) who show that competitive authoritarian political outcomes including elections are affected by economic conditions and that autocrats who perform poorly are punished politically. When the war hits home it destroys the economic foundation of society. High unemployment, miserable wages, and mounting prices lead to crumbling confidence in the regime's competence to ever bring better life. While the regime offers payments and perks to its inner circle, the population is offered little relief. As the regime turns to repression to preserve unity amid the failure to address grievances, the alienated public is left with no choice but to vote out the regime. Therefore, the key takeaway for the survival of war-hit strongmen is that neither repression or control over information will strengthen their grip on power, but rather a stable distribution of material benefits to supporters.

There are a few lessons here for conflict management. First, unilateral military interventions

coupled with robust support for the opposition may weaken autocrats to the extent that they may not be able to exploit the rally effect. Second, embattled authoritarian leaders may be more vulnerable to external pressure in the aftermath of war than previously thought. Using this moment of weakness to push for the respect of human rights and rule of law may result in benefits for the society but also boost opposition forces. Finally, foreign governments should not lump all the non-democratic regimes together. This study demonstrates that competitive authoritarian regimes might be vulnerable in elections. Engaging the public through dialogue than coercion may pay dividends in the future. If the public ever escapes the sway of the rally effect, it will make the bellicose behavior of at least some authoritarian regimes politically untenable.

Replication data: Replication materials and the Online appendix are available at https://github.com/milos-agathon/strongmen_replication & https://zenodo.org/record/4814191.

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Appendix for "Strongmen Cry Too: The Effect of Aerial Bombing on Voting for The Incumbent in Competitive Autocracies"

A Appendix info

This Appendix is organized in three parts. In the first part, I display the descriptive statistics. Table A1 shows the summary statistics, Figure A1 displays the correlation matrix for the covariates used in the data analysis, and Figure A2 presents the aggregated polling results on voting for the regime (1992-2000) using the data from the Institute of Social Sciences. The second part shows the regression tables for the main model in which the dependent variable is replaced with the share of votes for the democratic opposition (Table A2, column 1), and the share of votes for the democratic opposition multiplied by voter turnout (Table A2, column 2). Table A3 shows the results for the main model using a modified specification of the bombing variable: included are only strikes against the party HQs, communications infrastructure, and police stations to test Allen and Vincent (2011). In Table A4, displayed are the results of logit regression model of being bombed as a function of the pre-treatment variables. Because the population per doctor has an effect on being bombed, this variable is excluded in the model in Table A5. Finally, the third part concludes with a codebook for the municipality-level dataset used in the main analysis.

A.1 Part I: Descriptive Statistics

Table A1: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Vote-share (Milosevic, %)	480	38.6	14.4	2.5	95.8
Vote-share (Radicals, %)	466	13.6	8.7	0.1	45.7
Vote-share (Opposition, %)	470	25.1	14.2	0.01	68.6
Turnout (%)	480	73.8	8.7	19.3	90.1
Bombed	480	0.675	0.469	0	1
Employed per 100,000 inhabitants	480	2.312	1.469	0.390	14.690
Population per doctor	477	634	261	170	1367
Refugees (%)	480	5.9	6.7	0.01	33
Minority (%)	480	20.3	24.5	0.8	95.8
Females (%)	480	50.6	0.9	47.8	54.3

Figure A1: Correlation Matrix.

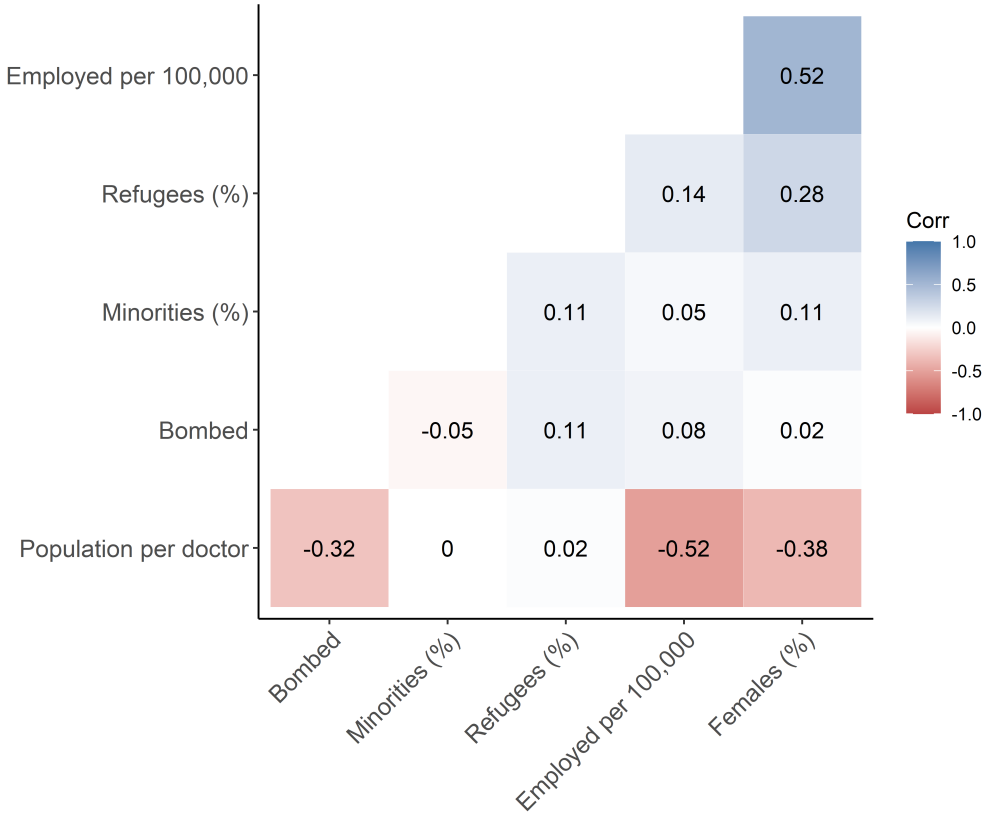
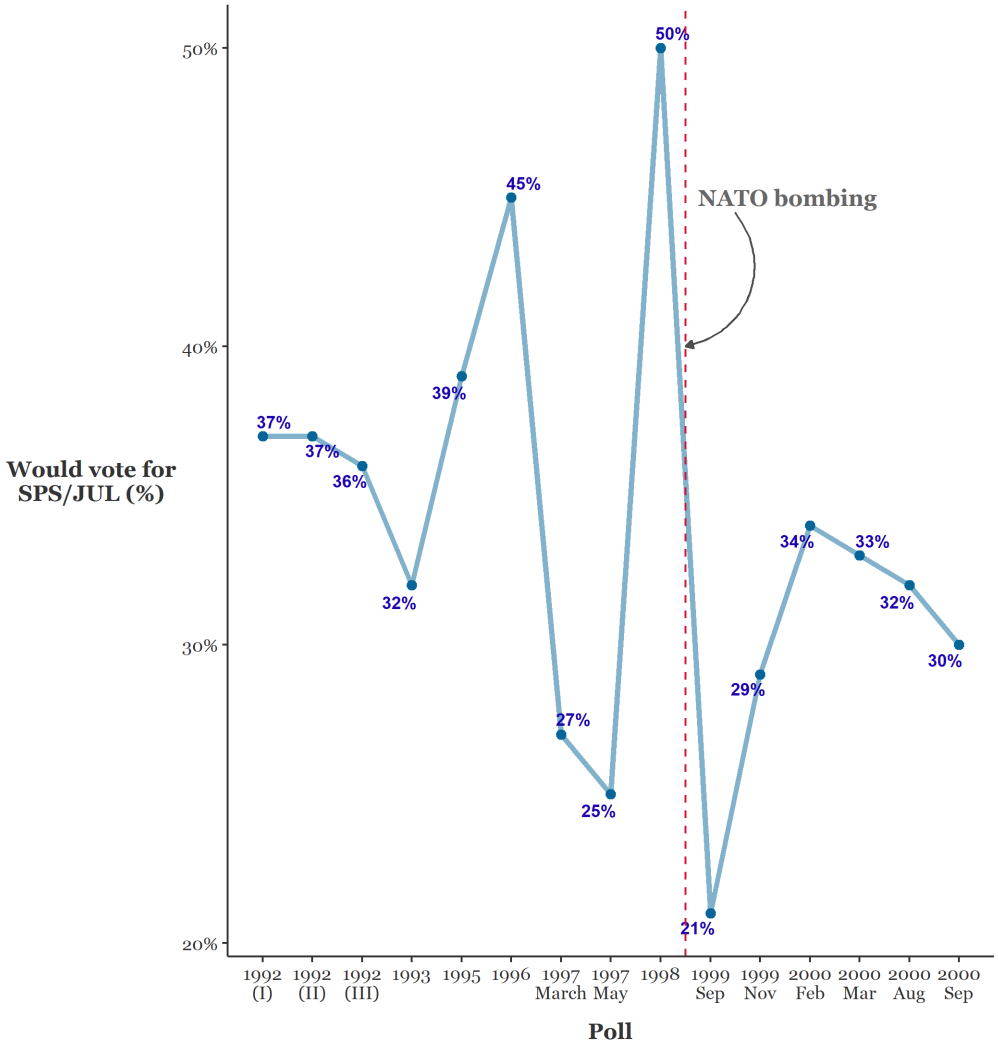


Figure A2: The percentage of participants from Serbia who would vote for the Socialist Party of Serbia and Yugoslav Left in the next elections (1992-2000)



Source: Klingemann and Bacevic (1997a,b,c,d,e,f); Institute of Social Sciences (1997a,b, 1999, 2000a,b,c,d, 2006).
Methodology: The polls are based on face-to-face interviews with a standardized questionnaire. Each poll consists of responses from persons ages 18 years and older who resided in Serbia (without Kosovo) at the time of the interview. The results shown in this Figure are based on questions related to the respondent's voting preference for either Milosevic or his party/party of his wife. The questions are consistent across the polls and formulated approximately in the following form: "What party will you vote for in the forthcoming election?". I excluded abstaining and undecided responses. The data are available upon request.

A.2 Part II: Regression Tables

Table A2: Linear regression models for the democratic opposition

	DV: opposition vote-share	DV: Turnout × opposition vote-share
Bombed × Year2000	0.020	0.019
	(0.023)	(0.017)
Bombed	0.002	−0.003
	(0.011)	(0.008)
Year2000	0.176*	0.136*
	(0.020)	(0.015)
Year1996	0.120*	0.073*
	(0.009)	(0.006)
Employed per 100,000 inhabitants	−0.002	−0.0002
	(0.005)	(0.004)
Population per doctor	−0.068	−0.053
	(0.027)	(0.021)
Refugees (%)	−0.351*	−0.266*
	(0.082)	(0.062)
Minority (%)	−0.119*	−0.114*
	(0.035)	(0.026)
Females (%)	2.676*	1.855*
	(0.774)	(0.572)
Constant	−1.057*	−0.728
	(0.392)	(0.291)
Observations	467	467
Adjusted R^2	0.588	0.598
F Statistic	21.132*	21.973*

Note: Reported are coefficient estimates with robust standard errors clustered on the municipal level in brackets. All models include district-level fixed effects. P-value: *p<0.05; **p<0.01

Table A3: Linear regression models of bombings (DV: Vote-share for the incumbent)

	Allen and Vincent (2011)
Bombed × Year2000	0.001
	(0.014)
Bombed	0.020
	(0.016)
Year2000	0.081*
	(0.009)
Year1996	0.192*
	(0.009)
Employed per 100,000 inhabitants	−0.0001
	(0.004)
Population per doctor	0.014
	(0.047)
Refugees (%)	−0.031
	(0.121)
Minority (%)	−0.147
	(0.063)
Females (%)	−1.309
	(1.135)
Constant	0.904
	(0.588)
Observations	477
Adjusted R^2	0.611
F Statistic	23.665*

Note: Reported are coefficient estimates with robust standard errors clustered on the municipal level in brackets. All models include district-level fixed effects. P-value: *p<0.05; **p<0.01

Table A4: Logit regression model of pre-treatment variables

	DV: being bombed
Employed per 100,000 inhabitants	−0.241
	(0.145)
Population per doctor	−3.239**
	(0.969)
Refugees (%)	4.058
	(4.251)
Urban population (%)	0.501
	(1.121)
Illiterate (%)	−2.291
	(9.342)
Constant	3.190**
	(1.194)
Observations	159
Log Likelihood	−89.719
AIC	191.437

Note: Reported are coefficient estimates with robust standard errors clustered on the municipal level in brackets. P-value: *p<0.05; **p<0.01

Table A5: Linear regression model of bombings without the population per doctor variables (DV: Vote-share for the incumbent)

	DV: Milosevic's vote-share
Bombed × Year2000	−0.025*
	(0.012)
Bombed	−0.007
	(0.013)
Year2000	0.099**
	(0.009)
Year1996	0.193**
	(0.009)
Employed per 100,000 inhabitants	−0.001
	(0.005)
Refugees (%)	0.025
	(0.111)
Minority (%)	−0.133*
	(0.065)
Females (%)	−1.118
	(0.895)
Constant	0.825
	(0.448)
Observations	480
Adjusted R^2	0.613
F Statistic	24.706**

Note: Reported are coefficient estimates with robust standard errors clustered on the municipal level in brackets. All models include district-level fixed effects. P-value: *p<0.05; **p<0.01

A.3 Part III: Codebook

`county`

The string shows the name of municipality.

`id`

This numeric code indicates the unique identifier for each municipality in the dataset and ranges from 1 to 160.

`okrug`

The string shows the name of county (*okrug*.

`okrug_id`

This integer code denotes the unique identifier for each of the 25 counties and ranges from 0 to 24.

`year`

Indicates the year when a local election was held (1992, 1996 or 2000).

`vote_milosevic`

The share of votes (in %) for the Socialist Party of Serbia and Yugoslav Left in the first round of respective local elections.

Source: The Statistical Office of the Republic of Serbia

`vote_opposition`

The share of votes (in %) for the democratic opposition bloc (DEMOS, DEPOS and DOS) in the first round of respective local elections.

Source: The Statistical Office of the Republic of Serbia

`vote_srs`

The share of votes (in %) for the Serbian Radical Party (SRS) in the first round of respective local elections.

Source: The Statistical Office of the Republic of Serbia

`turnout`

This column indicates the proportion (in %) of eligible voters who voted in a local election.

Source: The Statistical Office of the Republic of Serbia

`bombed`

Whether a municipality was bombed (treatment group) or not (control group). Please see more about the measurement and coding issues in the paper.

`year00`

This dummy equals 1 for bombed municipality in the post-1999 period (otherwise it is zero).

`employed_per_1000inh`

The employment rate measured as the number of working-age individuals employed in the state-owned or private sector per 1000 inhabitants of municipality.

Source: The Statistical Office of the Republic of Serbia

`pop_per_doctor`

This variable shows the number of inhabitants of municipality per one medical doctor working in the observed municipality.

Source: The Statistical Office of the Republic of Serbia

`refugees_perc_pop`

The proportion of refugees from the Yugoslav wars in the total population (in %) for every municipality.

Source: Commissariat for Refugees and Migration of the Republic of Serbia

`minorpc91`

The proportion of minorities in the total population (in %) for every municipality, according to the 1991 census.

Source: The Statistical Office of the Republic of Serbia

`femalepc91`

This column indicates the proportion of females in the total population (in %) for every municipality, according to the 1991 census.

Source: The Statistical Office of the Republic of Serbia

`pop_chng_98_02`

The percentage change in municipal population between the year of 1998 (one year prior to the bombing) and 2001 (one and a half years after the bombing). Information on the population for 1998 is an official estimate of the Serbian Statistical Office, taking into account the natural change of the population, while the 2001 data originate from the 2002 census.

Source: The Statistical Office of the Republic of Serbia

irp

The percentage of internally displaced persons (IDPs) from Kosovo in the total population for every given municipality.

Source: Commissariat for Refugees and Migration of the Republic of Serbia

urbanpc91

This column indicates the proportion of the urban population in the total population (in %) for every municipality, according to the 1991 census.

Source: The Statistical Office of the Republic of Serbia

age20_34pc

The percentage of the total population ages 20–34 (youth), according to the 2002 census.

Source: The Statistical Office of the Republic of Serbia

illiterate_pc

Illiterate population measured as the percentage of the total population which has not completed primary school, according to the 1991 census.

Source: The Statistical Office of the Republic of Serbia

allen_vincent_2011

The column measures whether a municipality is bombed or not but including only strikes against the government and communications targets in order to test the mechanism by Allen and Vincent (2011).

bombed_econ

The column measures whether a municipality is bombed or not but including only strikes against the civilian, industrial, and infrastructure targets in order to test the retrospective theory's mechanism.