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Post-Conflict Governance and Reconstruction:
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By

David Andres Dow

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in

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University of California, Berkeley

Committee in charge:

Professor Leonardo Arriola, Chair
Professor Robert Powell
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Abstract

Post-Conflict Governance and Reconstruction:
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David Andres Dow

Doctor of Philosophy in Political Science

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Professor Leonardo Arriola, Chair

This dissertation investigates how post-conflict countries manage the reconstruction process to simultaneously consolidate political support and minimize new insurgencies. Focusing on subnational variation in the case of Uganda since 1986, I show how and when the central government has manipulated the provision of public goods (i.e., electricity), security (i.e., police infrastructure), and development (i.e., foreign aid projects) to achieve its twin political objectives of improving political support and minimizing violent threats to its rule. In making these distributive choices, I argue that incumbent rulers face what I call a "victor's dilemma" in which they often must choose between allocating state resources to improve their short-term electoral interests or to invest in longer-term state-building projects that improve the state's capacity. When armed and electoral opposition are concentrated in different geographic constituencies, resource-constrained governments will prioritize resource allocation disproportionately towards those areas considered a larger threat to their grip on power. On the whole, I demonstrate that Uganda's allocation of essential state-related services and activities has been motivated largely by short-term interests to maintain political control rather than long-term state building efforts of reconstruction.

To Trinity, Jasper, and Elowen

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Chapter 1

Distributing the Spoils of the State:
Post-Conflict Governance at the Sub-National Level

When they are contending for victory, they avow the intention of enjoying the fruits of it. If they are successful, they claim, as matter of right, the advantages of success. They see nothing wrong in the rule that to the victor belong the spoils of the enemy.

-William L. Marcy (1832)

Motivations and Research Question

Across a wide variety of political systems and contexts, the victors of political competition face a similar question: how will they distribute the spoils of victory after they gain power? Whether they achieve this power through an election, coup d'etat, or warfare, newly installed rulers often harness the spoils of the state to serve their interests going forward. In the United States, Andrew Jackson introduced a spoils system of staffing the bureaucracy shortly after his electoral victory in 1828 (Nelson 1982; Howe 2007), while in contemporary Iraq the post-war government is thought to have significantly favored the country's Shia population at the expense of its Sunni citizens when rebuilding the state.[1]

Though political favoritism is widespread, the degree of "spoils politics" varies significantly according to the institutional and strategic context within which politics takes place. While institutional constraints and democratic norms can prevent elected leaders in consolidated democracies from distributing the spoils of victory in whatever way they'd like to, the same cannot often be said for the authoritarian and hybrid regimes that govern weak states. In these settings institutions are usually too ineffectual to constrain rulers from distributing state resources for their own ends and to consolidate their power. This dissertation focuses on the dynamics of spoils politics in a particular subset of weak states, post-conflict countries. It addresses a key question that has been understudied in this context: after emerging victorious from a civil war, what explains the central government's distribution of state-controlled resources across subnational territory?

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[1] On Iraq, see for example Haddad, Fanar. 2016. "Shia-Centric State Building and Sunni Rejection in Post-2003 Iraq." *Carnegie Endowment for International Peace*.

Theoretical Framework and Approach

To address this question, I draw on theories of conflict, state capacity, and distributive politics to develop a novel theory of post-conflict[2] governance and reconstruction. Though institutional controls may be weak or non-existent, both domestic and international pressure can place important constraints on the behavior of post-conflict rulers.[3] Domestically, following war rulers face threats from a violent opposition that must be demobilized. If left unattended, the victorious government may find itself quickly on the defensive and perhaps even thrown out of power at the hands of a new insurgent group.[4] Furthermore, changing international pressure has also lead to rising expectations for post-conflict governments to hold elections relatively quickly after gaining power (Ottaway 2003; Lyons 2004; Zeeuw 2005). This has introduced another domestic pressure that can constrain incumbent behavior, but this time in the form of non-violent, electoral opposition parties. If post-conflict governments also do not persuade voters to support them at the ballot box, they may find themselves out of power once more. Therefore, in the post-Cold War era, post-conflict countries are increasingly undergoing both reconstruction and democratization processes simultaneously.

These dual threats, in addition to significant resource constraints, shape the strategic environment in which post-conflict rulers operate. I argue that incumbent rulers face a "victor's dilemma" when making distributive choices about which constituencies to target with a marginal increase in resources to effectively address each threat. The "victor's dilemma" entails a choice between allocating state resources to constituencies that will improve the incumbent's short-term electoral interests or to invest in constituencies that are vulnerable to new insurgencies with longer-term state-building projects that improve the state's capacity to prevent new violence. When armed and electoral opposition groups are concentrated in different geographic constituencies, a resource-constrained government will be forced to prioritize resource allocation disproportionately towards those areas it considers a larger threat to its grip on power.

I consider the distributive politics of these allocation decisions along three important dimensions: the centralized provision of local public goods, security, and development aid. I provide a brief sketch of the theoretical logic for each of these

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[2] While my argument and analysis focus specifically on these dynamics in the aftermath of large scale civil war, many aspects of the project have implications for weak states governed by hybrid or democratizing regimes in the presence of significant ongoing violence or armed threats.

[3] I use the terms "ruler" and "government" interchangeably and assume a unitary actor in most cases. I discuss relaxing this assumption where appropriate in later chapters.

[4] This is consistent with extensive work on the "conflict trap" whereby countries that experience a civil war become more likely to experience another afterward (e.g. Collier et al 2003).

dimensions here, but fully explain the theory with added nuance in each relevant chapter. Table 1.1 presents a broad overview of the theory for each type of resource.

Public Goods Provision

Local public goods provision is thought to be an effective tool for governments facing both armed and electoral threats. The increased allocation of public goods can be seen as a tool to win over the "hearts and minds" of the local population and increase counterinsurgency effectiveness (e.g. Berman et al 2014) or to "buy-off" an armed opposition (e.g. Dal Bo & Powell 2009 in the context of "spoils politics"). Under the right conditions, in both cases the government can avoid future periods of costly fighting in areas where it has observed violent threats (or expects to). Similarly, the provision of local public goods before an election can also mobilize and/or persuade voters to support the incumbent (e.g. Harding 2015).

In chapter 2, I argue that local public goods are likely to be more effective as electoral tools than for reconstruction when 1) they are flows rather than stocks, 2) elections are repeated, 3) violent actors can impose costs on the government and 4) there are significant post-conflict aid projects that can substitute for public goods spending.

To start, when the public goods in question can be reduced or recaptured by the government after its interaction with the opposition (i.e. flows of public goods like electricity) then there will be significant commitment problems in a scenario where the government tries to "buy" electoral support or rebel disarmament in a one-shot interaction. Repeated elections are therefore crucial to the argument here for multiple reasons. First, they provide a mechanism through which both voters and the government can punish the other after the initial interaction (Acemoglu 2003; Stokes 2005; Smart & Sturm 2013; Duggan & Martinelli 2017). Additionally, elections also provide a clear mechanism through which an electoral opposition can increase the scale of its threat, while clarifying the time horizons for the government to effectively combat the threat. Relative to violent threats that remain localized to rural areas (often far from the capital), elections potentially induce shorter time horizons for post-conflict rulers than conflict does.

Providing local public goods for reconstruction purposes is also likely to be more expensive when local security remains weak and non-state actors can impose costs through violence (i.e. destroying infrastructure, threatening school or hospital staff, raiding local supplies). Finally, post-conflict governments will find it less critical to devote public goods spending to reconstruction when donor funded aid projects are being implemented in conflict zones in significant numbers.

Security Provision

Consolidating local security is a key aspect of post-conflict reconstruction and is critical for paving the way for improved public goods and development outcomes in constituencies with a history of violence. However, security forces are also routinely used by governments to consolidate their power by repressing non-violent electoral opposition.

In chapter 3, I argue that the post-conflict ruler's security allocation dilemma for a national police force is resolved mainly by the significant variation in the costs and benefits of electoral repression in opposition constituencies compared to security provision in violent constituencies. Building a police force with high capacity across a country is particularly difficult for weak states emerging from civil war because they usually begin with weakly institutionalized and politicized security institutions. The maintenance of public order and the prevention of crime, terrorism, and rebellion, *without* the indiscriminate repression of civilians, requires a highly professionalized and well-resourced organization that post-conflict states lack. On the other hand, the arrest and harassment of public officials and political candidates requires far fewer resources than those needed to investigate and arrest criminals, terrorists, and rebels which operate largely in secret. Using police for electoral repression is a particularly useful strategy in strong opposition constituencies since voters in these areas often cannot be efficiently persuaded to support the incumbent with public goods or patronage but may be coerced into not voting altogether.

Foreign Aid Allocation

Foreign aid often represents a large portion of the budget for governments in poor countries. When implemented effectively, foreign aid projects can bolster post-conflict reconstruction and economic development by delivering goods and services to populations that desperately need them (Girod 2012, 2015). Unsurprisingly, foreign aid is also thought to have perverse effects on governance and lead to weak, dependent economies governed by unaccountable, corrupt leaders (e.g. Svensson 2000; Knack 2001, 2004; Moyo 2009). Further, aid projects can also be targeted by governments towards constituencies on the basis of their electoral payoff for the incumbent rather than their development needs (e.g. Jablonski 2014, Masaki 2018).

In chapter 4, I argue that in a post-conflict country key differences in the allocation process for foreign aid can weaken the link between electoral politics and the distribution of aid projects. Three important factors make the allocation of aid more likely to be targeted for reconstruction purposes than in the cases of local public goods or security forces: 1) the role of external actors in allocating non-strategic aid, 2)

geographic and functional constraints on reconstruction aid, and 3) the ability of politicians to claim political credit for foreign aid projects.

Following the logic of Girod (2012, 2015), when recipient governments do not have alternative income sources they will be more likely to attempt to avoid political manipulation and corruption and meet donors' development and reconstruction goals. They will therefore be more willing to dependably implement projects that have geographic and sectoral constraints. While post-conflict recovery and reconstruction projects can take a wide variety of forms, many of them do have geographic or sectoral constraints that limit the recipient government's ability to use them for electoral purposes in non-conflict constituencies. Finally, when the recipient government is viewed as corrupt or clientelistic by large numbers of voters, it may have difficulty in claiming credit for aid project outcomes (Milner et al 2016). If central government politicians cannot claim credit for diverting aid projects to a locality, their expected utility from this diversion is likely lower than it would be from effectively implementing the project in post-conflict zones.

Table 1.1: The Victor's Dilemma

Resource Type	Electoral Targets	Reconstruction Targets	Relevant Margins	Theoretical Prediction
Public Goods	Swing/core	Conflict Zones	Time horizons; commitment problems; scale of threat; relative costs	Electoral
Security	Opposition	Conflict Zones	Relative costs of electoral repression vs. reconstruction	Electoral
Foreign Aid	Swing/core	Conflict Zones	Need for income; donor pressure; geographic & sectoral constraints	Reconstruction if non-strategic aid; Electoral if strategic aid

Overview of Empirical Contributions

To address the research questions and theoretical argument, this dissertation examines post-conflict governance and reconstruction in the case of Uganda since 1986. Focusing on subnational variation, I show how and when the central government has

manipulated the provision of public goods (i.e., electricity), security (i.e., police infrastructure), and development (i.e., foreign aid projects) to achieve its twin political objectives of improving political support and minimizing violent threats to its rule.

On the whole, I demonstrate that Uganda's allocation of essential state-related services and activities has been motivated largely by short-term interests to maintain political control rather than long-term state building efforts of reconstruction. In the first empirical chapter, I find that the Ugandan government has targeted large increases in electricity at "swing" counties rather than to core supporter or co-ethnic areas. But I show that these increases occur only during critical pre-electoral years; the overall flow of electricity falls sharply in post-election periods. These manipulations appear to be an effective vote-buying tool when they occur in the context of a repeated electoral game. I find that larger increases in pre-electoral light are associated with larger increases in the incumbent president's county level vote share in the next election. Meanwhile, counties that exhibit smaller changes in incumbent vote share are punished with lower levels of light in the post-electoral period.

The second empirical chapter focuses on the development of policing in Uganda. I combine qualitative and quantitative evidence to show that the nature of policing and construction of new police infrastructure has followed a similar politically driven logic. While constituencies with histories of rebel-state conflicts have seen modest increases in small police post infrastructure, both small police posts and larger police stations have mainly been targeted in political opposition areas. Meanwhile, rather than devote increased policing resources to constituencies with little existing infrastructure, the state has increased construction to a greater degree in areas with higher levels of baseline policing infrastructure. I also show qualitatively that though police reform was publically one of the major reforms of the post-conflict Ugandan government, the police have been maintained as a repressive, political tool for the ruling party instead of a professionalized force for the maintenance of public order.

The third empirical chapter examines the allocation of aid projects. I find that unlike models of political aid allocation, initial aid commitments in Uganda have been primarily targeted towards constituencies with a history of conflict. To the extent that politics do matter, aid commitments appear to be larger in strong opposition constituencies. I extend the standard analysis of aid commitments by also analyzing the annual disbursement of aid as well. Constituencies with a history of violence still receive larger disbursements of aid. Electoral incentives also appear to loom larger as core and swing constituencies receive greater disbursements of aid than the opposition, suggesting that some governmental capture may be occurring at this later stage.

As shown in my analyses of electricity, policing, and aid disbursements, incentives for short-term political survival have driven the geographic provision of resources in post-war Uganda. When critical state resources are not reaching the areas where they are most needed, namely, potential conflict sites, then the politicized

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allocation of post-conflict resources may ultimately weaken the long-term capacity of the state to prevent new violent conflicts. Toward that end, the final empirical chapter of my dissertation explores how choices about security, public goods provision, and foreign aid allocation influence patterns of local conflict over time. I find that local increases in electricity, policing, and aid have failed to reduce levels of subnational violence in Uganda.

Chapter 2

The Political Logic of Electricity Provision in Post-Conflict Uganda

Abstract

The provision of electricity is essential for economic development, but it is also a measure of state presence in developing countries. How do governments in weakly institutionalized, post-conflict settings provide for electricity within their countries? I argue that short-term electoral concerns can overwhelm counterinsurgency and longer term state-building incentives in shaping the geographic provision of electricity. Focusing on Uganda, I show that government has pursued a political strategy of improving electricity in lower cost but politically important swing constituencies in an effort to maximize its political monopoly. I use qualitative evidence on the motives for prioritization of electricity and analyze changes in satellite imagery of the presence of visible night light (from 1992-2012) to demonstrate larger gains in electricity provision in "swing" counties during critical pre-electoral years with sharp decreases in post-election periods. Meanwhile, I find that core supporter, as well as historically violent counties, experience smaller changes in electricity.

1. Introduction

As part of its post-conflict reconstruction efforts to improve electricity access in its Lango and Teso regions, in 2007 the Ugandan government allocated 16 billion shillings towards the rehabilitation of power lines that had been damaged during the Lord's Resistance Army's insurgency (Olaka 2007). Nearly four years later, residents demonstrating against continued power outages in Lango's Lira Town were reportedly arrested and beaten by police and military personnel (Apunyo 2011; Odongo 2011). These protests in Lira Town were part of a series of protests and riots across the country that signaled the Ugandan population's deep dissatisfaction with the state of access to reliable electricity in the country. As part of their response to these protests and the country's energy shortage, the ruling government and electricity distributor decided to temporarily reduce the length of power cuts in areas of protest while increasing them in previously passive areas (Bagala 2011). Taken together, these events in Uganda highlight the environment a post-conflict government faces as it seeks to maintain political control while simultaneously engaging in state-building, democratization, and development with often severe financial constraints.

How do vulnerable post-conflict rulers manage state resources in order to insulate themselves from further political unrest? Improving economic development and state capacity are two of the most well-known factors in preventing the outbreak of political violence (Collier et al 2003; Fearon & Laitin 2003). In this respect, the provision of electricity is an important issue of study in post-conflict countries not only because it is essential for modern economic development, but because it is also a measure of a state's capacity to extend itself into regions where violent conflicts are likely to originate. The geographic spread of electrification has therefore become one area in which post-conflict governments, and international donors, have sought to invest in order to help promote stability. Access to affordable and reliable electricity is a critical component of many sectors, including improving the ability of firms to grow, health centers to operate for extended hours, students to study after sunset, and refugee camps to be well lit for security against night time attacks.

In this chapters, I examine how governments facing both armed and electoral opposition in post-conflict settings develop and distribute an important public good, electricity, within their countries over time. While recent social science research on post-conflict reconstruction has provided us with important insights into national (Collier et al 2004, Girod 2015) and program level (Fearon et al 2009, Humphreys et al 2015) dynamics, we know less about how post-conflict reconstruction occurs at a subnational level. Focusing on the subnational level, I demonstrate that the long-term state-building efforts required for electrification in post-conflict countries are often offset by the short-term concerns of rulers who find themselves politically vulnerable and resource

constrained. This finding has important implications for international intervention in post-conflict countries—for both the type and amount of donor aid allocated for electrification and other public goods projects, as well as the role of elections.

The study of electricity provision is an emerging research agenda in political science. It follows a tradition of studying how political incentives may shape the individuals and groups that receive increased access to important state resources (i.e. Cox & McCubbins 1986, Lindbeck & Weibull 1987, Stokes 2005, Stokes et al 2013). The study of electrification and distributive politics has been aided in this area by the recent use of high resolution satellite imagery. However, empirical results are divided as to whether states primarily target increased electrification at swing districts, core districts, or areas with histories of violence. Min (2015) and Baskaran et al (2015) use night light data to study the distribution of electricity across India over time. Their studies show that electoral incentives play a role in the geographic targeting of higher electricity supply and more projects to constituencies holding special elections, particularly those with close races. Briggs (2012) provides evidence that aid projects for electrification are allocated according to political criteria in Ghana, and Kroth et al (2016) find that in post-Apartheid South Africa the national electricity company prioritized core ANC constituencies in areas where municipalities lacked their own distribution capacity. Finally, Wibbels et al (2016) address the spread of night light in 6 post-conflict African countries. In contrast to other studies, they find increased electrification to areas with a history of violence rather than to core supporters, coethnics, or swing districts. This chapter builds on these studies with original theoretical and empirical insights based on fieldwork in Uganda. I present a theory of electricity provision in post-conflict settings and test this theory with both quantitative and qualitative evidence from Uganda. In doing so, this paper contributes to this debate on the geographic allocation of electricity provision.

Building on these previous studies, I argue that the incumbent regime aims to distribute electricity geographically in order to simultaneously maximize its political support and minimize the outbreak of new insurgencies while subject to a budget constraint. In post-conflict settings, the government's budget is often severely constrained and this forces the government to make difficult choices about where best to target its resources. When electoral politics pose a greater short-term threat to an incumbent's hold on power than violent rebellion does, I argue that post-conflict governments will disproportionately target increased electricity provision to important swing constituencies rather than devote their resources to longer term state-building efforts in areas with a history of political violence.

I examine the growth of electricity provision by focusing on the case of post-conflict Uganda. In the aftermath of over two decades of political instability and the civil war that ended in 1986, the National Resistance Movement (NRM) government sought to consolidate political control through a number of reforms and governing

strategies. The extension of electricity access and power projects across the country and into the rural countryside was one such area of state effort. In this paper I show that the growth of electricity has improved over time as the government of President Yoweri Museveni has entrenched itself and brought relative stability to the country after decades of large-scale conflict. I also show that the process of electricity growth in post-conflict Uganda has conformed to the argument that it is driven by a political logic focusing on electoral incentives. The government has followed a strategy of improving electricity provision in relatively low cost but politically important areas before elections in an effort to maximize its political monopoly. Meanwhile, the government has made much smaller improvements in electricity provision in areas of prior violent conflict.

I draw on two sources of evidence to corroborate this argument. First, I use qualitative evidence on the motives for geographic prioritization of electrification projects in Uganda and the mechanisms that influence the implementation of projects by the government and its private partners. Second, I analyze changes in satellite imagery on the presence of visible night light from 1992 until 2012 to demonstrate how political incentives shape both the timing and geographic scope of electricity provision. I provide evidence that growth in light output is greater just prior to elections but that this growth is followed by a sharp decrease after the election occurs. Next, I show larger gains in electricity provision in Ugandan counties with more competitive presidential voting. I also show a positive, but relatively small, increase in electricity in counties with a history of violent conflict. By contrast, counties that pose no threat to incumbent control—staunch incumbent counties, historically peaceful counties, and far-flung counties—have undergone smaller changes in electrification.

The rest of the chapter proceeds as follows. First, I present my theory for the spread of electricity in post-conflict countries and outline specific hypotheses with respect to the analysis of Uganda. Next, I provide background and context on the electricity sector, post-conflict governance, and qualitative evidence that electricity is subject to political manipulation in Uganda. In the following section, I describe the quantitative data and methodology before discussing the results of the analysis.

2. Theory

The Victor's Dilemma in Post-Civil War Settings

How do post-conflict countries manage the reconstruction process at the subnational level to simultaneously maximize political support and minimize new insurgencies? Incumbent governments in post-conflict states often face a continued armed opposition and empirically are more likely to experience renewed civil conflict

(Collier et al. 2003). With the introduction of elections in many post-civil war settings, governments often simultaneously face electoral and continued armed competition for state control. In combatting these threats, governments in weakly institutionalized environments face difficult decisions about where to invest the state's resources across geographic space. Separate groups of scholars have demonstrated that increasing local public goods provision can be an important tool for both improving incumbent vote share (Harding 2013, etc) and winning social support in conflict zones (Hoffman 2004, Paul et al 2010, Berman et al 2014). When electoral and violent opposition groups are not geographically concentrated in the same areas, then the government faces competing demands to invest in geographic constituencies of past violence in order to bolster state capacity (which I refer to as reconstruction strategies) or instead to devote increased resources to electorally important constituencies (electoral strategies).

In the aftermath of civil war, I call this tradeoff the "victor's dilemma". The winning party of the conflict controls the government with the problem of minimizing violent rebellion to its rule and simultaneously maximizing its political (often electoral) support. When the government is resource constrained, and post-conflict governments generally find themselves in this position, they must allocate resources effectively across these two domains in order to maintain their hold on power.

How do post-conflict governments resolve this dilemma with respect to the provision of local public goods? I argue that several key factors lead them to prioritize targeting important electoral constituencies with higher levels of public goods rather than historically violent constituencies. First, elections tend to induce shorter time horizons for the incumbent. Second, elections also provide a clear mechanism for an electoral opposition to increase the scale of their threat to the incumbent, whereas violent opposition groups often do not have a clear mechanism. Third, the cost of providing public goods in historically violent constituencies is higher when strong security has not already been established. Fourth, post-conflict aid projects that are geographically constrained to violent constituencies can substitute for state resources and free the incumbent government to use its resources on electoral strategies.

Time Horizons and the Scale of Regime Threats

Related to the scale of the threat they face, incumbents have different time horizons on their investments across these reconstruction and electoral dimensions and therefore have incentives to favor one over the other in the short term. Regularly scheduled elections provide a clear *short-term* mechanism through which a legal, visible opposition can reach a scale where the incumbent government fears losing power. A failure to achieve its strategic short-term goal of attracting local votes contributes directly to its chances of maintaining national control. Since elections usually occur at predictable times, the threat of losing power through this mechanism increases as the

election nears. Consistent with existing work on political business cycles and elections (Nordhaus 1975, Schultz 1995, Khemani 2004, Eifert et al 2010, Baskaran et al 2015, Labonne 2016), in order for the incumbent to maximize the effectiveness of its resources for the coming election the flow of public goods should increase as the election approaches in an effort to improve turnout and persuade voters. In the presence of post-conflict elections, rebel groups that come to power with narrow bases of social support or incumbent governments whose support has been eroded during a civil war are especially likely to use state resources for short-term electoral purposes rather than reconstruction.

Targeting violent constituencies with public goods for reconstruction offers a less clear short-term return for the incumbent. Ongoing local violence may hinder development and highlight the government's incapacity to end it, but it may not actually pose an existential threat to the government since many nascent rebel groups fail to scale-up to a larger rebellion (Lewis 2017). Violent groups that do pose serious short-term threats to the incumbent's rule likely will be primarily dealt with using a military or policing strategy rather than through the provision of public goods or aid in the current period. Alternatively, uncertainty about whether a violent group will create less short-term incentive for the incumbent to target their constituencies in the present time period.

Costs of Reconstruction and Electoral Strategies

Furthermore, it can also be costlier to provide public goods in historically violent constituencies than in non-violent ones. In order for the provision of public goods to be effective in a conflict or post-conflict zone there must be some semblance of security as well. If the government must increase its security provision to maintain the same level of public goods as in a non-violent constituency then the effective cost of these public goods is higher in a constituency with violence. This cost is amplified in reconstruction zones where the government does not have effective intelligence networks and therefore little information to distinguish between civilians and rebels.

There are also broader theoretical reasons to suggest that local public goods provision will sometimes be ineffective in countering armed resistance. Consistent with a large literature on bargaining and commitment problems (Fearon 2004; Powell 2006), efforts by the central government to increase the *flow* of a local public good in exchange for some level of disarmament of non-state armed groups in the current period will fall flat when the flow of the resource can be reduced in future periods when the government is relatively stronger. Furthermore, when armed groups anticipate that local development will weaken them vis-à-vis the state, they may take steps to forestall this shift in the balance of power (Crost et al 2014, Sexton 2016, Zürcher 2017).

Finally, the government may have less incentive to use state-funded public goods for reconstruction efforts if externally funded aid projects will be targeted to violent areas. While scholars have demonstrated that aid can be geographically manipulated for political and electoral reasons (i.e. Hodler & Raschky 2010, Jablonski 2014), others have argued that political capture may be reduced when projects are more precisely defined and targeted (Winters 2014). In a post-conflict context, aid that is allocated for specific reconstruction purposes (such as refugee/IDP return and resettlement or rebel demobilization and reintegration) or provides funding for geographically constrained projects,[5] may create a substitution effect that discourages alternative government spending on local public goods. In turn this substitution effect encourages the incumbent to pursue an electoral strategy of public good allocation.

Table 1: Tradeoffs between electoral and reconstruction strategies

	Electoral	Reconstruction
Time Horizon	Short-term election cycle (repeated)	Long-term reconstruction
Mechanism for scaling up	Visible, legal opponents with clear mechanism for scaling up	Invisible, illegal opponents w/o clear mechanism for scaling up
Costs	Varies across swing, core, and opposition constituencies	Higher cost in higher violence constituencies
Commitment Problems	Repeated electoral interactions limit commitment problem	Government can't commit to future public goods provision
Backlash	Less likely	Increases in state presence can lead to attacks by opponents in uncontrolled areas

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[5] Geographically constrained reconstruction projects are those that explicitly target one region or portion of a country that has experienced conflict. Examples include the "Peace, Recovery, and Development Plan (PRDP) for Northern Uganda" and the "Eastern Region Stabilization and Peace-Building Project" in Democratic Republic of Congo. While these funds could be misallocated through outright corruption and embezzlement, there is less space for diversion of projects towards other regions of the country.

Sorting Geographic Constituencies

Overall, these mechanisms suggest that the incumbent government will not prioritize areas of violence for an increased flow of local public goods. However, constituencies do not usually neatly sort into those best targeted by either reconstruction or electoral strategies. In some cases, constituencies that the government would like to target for electoral purposes are also the sites of violence.

Figure 1: Sorting Constituencies
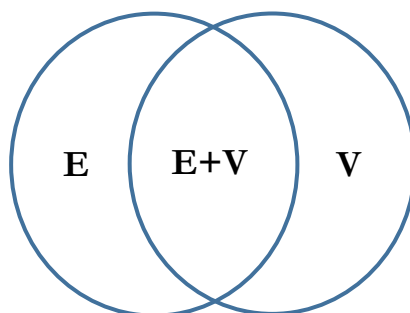
Areas with no violence that are electorally important are represented in the above figure by E, while areas that are electorally important and have experienced violence are represented by E+V. Finally, constituencies that are electorally marginal but have experienced violence are represented by V. When past violence has a deterring effect (V < 0) on government investment then the government's expected payoffs from investment can be ordered as follows:

$$U_g(E) > U_g(E+V) > U_g(V)$$

Therefore, an empirical implication of this theoretical argument is that we should expect the incumbent to invest greater local public goods in *non-violent* electorally important constituencies than in *violent* electorally important constituencies, which should in turn receive more than violent constituencies with little or no electoral benefit.

However, it is possible that past violence could encourage increased public goods provision (V > 0) but provide a payoff lower than electorally important constituencies (E>V). This in turn would reorder the governments payoffs as follows:

$$U_g(E+V) > U_g(E) > U_g(V)$$

Therefore, if V > 0 we should expect the incumbent to invest greater local public goods in *violent* electorally important constituencies than in *non-violent* electorally important constituencies.

Electoral Incentives for Electricity Provision

I study this resource allocation question in the context of electricity provision. I argue that improvements in electricity access can be more effectively translated into larger incumbent vote shares than into reductions in violence when the incumbent targets swing constituencies for increased electricity in the run-up to the election. In this section I expand on the logic of this claim.

While increasing electricity provisions as a state-building and counterinsurgency tool is likely to be a long-term process in diminishing local violence, it can be an effective short-term tool for improving incumbent support in the next election (Briggs 2012, Min 2015, Baskaran et al 2015, Kroth et al 2016). The benefits of electricity serve as a carrot that politicians can deliver potential voters in an effort to persuade or mobilize them (Cox 2010). In this way, electricity provision is similar to other material goods that political actors use to persuade voters to support them.

However, electricity has several important attributes with consequences for distributive politics. Unlike benefits like transfers of cash, bags of rice, or televisions to voters, the provision of electricity on a large scale requires high initial costs in infrastructure that take a longer period of time to implement and physically build. Furthermore, the targeting of electricity takes place on a geographically aggregated level and cannot occur at an individual voter level. Subsidies for connection costs may be targeted at individual voters but the infrastructure and continuous flow of electricity itself is a local public good that is non-excludable. Secondly, once the grid is built, the level of electricity flowing to a particular constituency may be manipulated through geographically targeted subsidies or load-shedding, but again it cannot be targeted across different types of individual voters.

The question for the incumbent government is how to optimally target the central government's provision of electricity to maximize its political support in a popular election. This question involves the incentives for the incumbent president and, in some cases, the ruling party's legislators. In post-conflict countries though, political institutions are often weak and executive control over resources dominates that of the legislature. While variation exists on this dimension, as well as the extent to which the electricity sector is privatized and decentralized, the theoretical discussion here focuses mainly on executive incentives and assumes that governments are able to either directly control the distribution of electricity or exert influence over private partners about how and when electricity supply is distributed.

In developing and post-conflict settings, the incumbent government must act strategically when choosing where to use its influence due to significant constraints on supply and the high costs of electricity provision. The incumbent has less incentive to target increased electricity output where the potential electoral payoff to the president and his party is lower. There are several political, economic, and demographic factors that likely influence the size of the electoral payoff to the incumbent. One key type of local variation is the degree of political support in previous elections—in other words, whether a constituency can be regarded as a core supporter, swing, or opposition area. The next section discusses theoretical predictions from the distributive politics literature that help guide the analysis.

Who Gets Electricity? Core, Swing, or Opposition?

My theory of the victor's dilemma makes predictions about incumbent targeting of "electorally important constituencies" but so far has not specified what types of constituencies those might be. I draw on existing theories of distributive politics to refine the electoral hypotheses with respect to local public goods provision. Vote maximizing incumbents may have different goals in mind when targeting areas for increased electrification. One consideration is the persuasion of voters and a second is the mobilization of voters. Cox (2010) argues that when the intended goal for a vote-maximizing party is mobilization, then the electoral targeting of core voters is the most useful strategy. At an aggregate subnational level, areas that staunchly supported the incumbent in the previous election might make excellent targets for incumbent mobilization efforts. Increased electricity provision may mobilize an incumbent's base and prove to be the most efficient vote-maximizing strategy.

However, local competition over the provision of electricity largely does not exist due to the nature of large-scale electricity provision as a natural monopoly. Classic models of distributive politics (Cox & McCubbins 1986, Dixit & Londregon 1996) are based upon the targeted transfers of two parties towards voters. In the absence of such competition between two parties, the provision of electricity may be a more useful tool to persuade swing voters than to mobilize core voters. Why? The improved provision of electricity in the pre-electoral period highlights the ability of the incumbent to deliver a particular good that the opposition cannot. Opposition rhetoric that the government has failed in its development or public goods provision efforts can be met with clear improvements right before the election as a signal of incumbent strength.

Meanwhile, in strong core supporter areas, opposition candidates are again also unable to deliver electricity in the pre-electoral period and cannot make a credible promise to improve electricity in the future. However, they may also be less likely to campaign extensively in core incumbent areas and when they do will also have a difficult time persuading voters to join the opposition with targeted transfers. The

incumbent can also target the provision of other goods besides electricity into core supporter areas to improve mobilization if she feels it necessary. Furthermore, core supporters are thought to not have a credible threat to punish its preferred party if it withholds rewards since they have no ideological alternatives (Stokes 2005). Therefore, I argue that the incumbent runs little risk of losing a significant number of votes in core supporter areas based on the provision of electricity.

The potential for incumbents to eschew the use of electricity provision as a mobilizing tool in core supporter areas suggests an increased targeting instead in swing or opposition areas. Swing voter models suggest that vote-maximizing parties should target increased resources at swing voters rather than opposition or core supporters. Strongly attached partisans of the opposition are costlier for parties to target while weakly attached partisans offer a less costly alternative for persuasion (Dixit & Londregan 1996). Following this logic, at an aggregated subnational level, swing constituencies *may* also reflect a less costly area for the incumbent president to persuade voters to support him.

However, this is not a straightforward proposition for the incumbent. Swing constituencies (areas with small vote margins) may instead be entirely composed of entrenched partisan voters for both the opposition and the incumbent in equal numbers and few true swing voters as individuals. Targeted public goods in these types of swing constituencies may have little impact on persuading voters but may have the effect of mobilizing the core supporters who reside in these swing constituencies (Cox 2010). Whether swing constituencies are 1) comprised of a large number of swing voters or are 2) competitive areas with entrenched partisan voters, it is likely that electricity targeting will be more effective there than in strong opposition constituencies in post-conflict countries. Strong opposition areas may be particularly difficult ground for persuasion in countries that have been polarized by conflict. When groups are significantly polarized by ethnic, religious, or regional armed conflicts in their recent past, the amount of resources necessary to sway opposition voters may be prohibitively costly and deter the targeting of electricity there. Incumbent rulers should find that targeting swing constituencies is the most efficient vote-maximizing strategy.

The Electoral Cycle and Electricity Targeting

Beyond geographic targeting, there are also reasons for the government to influence electricity changes with respect to the timing of the election. In order to maximize the effectiveness of its resources for the coming election, the flow of electricity should increase as the election approaches in an effort to improve turnout and persuade voters. Once the election is over though the government can reduce the flow of electricity at a lower political cost to itself. Once the national grid has been built in a local area the level of electricity consumption may vary according to many factors,

several of which a government can influence. Subsidies for electricity costs, strategic load-shedding (planned blackouts) schedules, and the prioritization of mechanical repairs can all contribute to an increase in electricity consumption before an election, while leaving the post-election period far dimmer.

Since the level of electricity supply generation and subsidies can be reduced after the election is over, a pre-election increase of electricity access does not represent a commitment to constant future benefits in a locality.[6] The government is able to monitor voters in an aggregated way by observing electoral returns and deciding to punish particular counties accordingly in the post-election time period. Voters have little ability to hold the government to a post-election commitment and won't have a chance to change their support until the next election, often now 4 to 5 years in the future. Thus, the aggregate electricity output should increase in the period before the election and decrease afterwards.

Hypotheses for Ugandan Data

In this section, I present specific hypotheses for electricity distribution in post-conflict Uganda that emerge from the theory described in the previous sections. I test aspects of this theory with data on night lights at the county[7] level.

Electoral Payoff Hypotheses

> **H1 – Swing counties**: Counties with lower margins of victory for the county winner will experience larger changes in electrification.
>
> **H2 – Core support counties**: Counties with higher electoral support for the president will experience larger changes in electrification.

Reconstruction hypothesis

As in the theory presented above, there is also little theoretical or contextual reason to believe that in Uganda particular factors linking electricity to conflict should dominate others. If the effect of electricity on local armed force effectiveness and concerns about improving local development dominate the other factors, then we should expect local conflict to spur electricity targeting as stated in H3 below. If instead

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[6] Repeated elections however do provide one mechanism through which voters can hold the incumbent accountable. If the incumbent severely reduces electricity flow to core and swing constituencies in the post-election period, then voters in those constituencies can punish the incumbent when the next election arrives. Armed groups do not have this same mechanism since disarming in the current period will weaken them for future periods with no guarantee that they can effectively bargain or even come to the negotiating table with the incumbent down the road.

[7] I describe the reasoning for this level of analysis in the data section.

commitment problems and concerns about armed attacks on electricity infrastructure are the dominant factors, then we should expect local conflict to deter the improvement of electricity provision.

H3 – Reconstruction: Counties with higher levels of conflict will experience larger changes in electrification.

Interactions between Electoral and Reconstruction Strategies

The theory also has implications for how electricity provision should be conditioned by variation in the level of past violence in electorally important constituencies. When violence acts as a deterrent to government investment then electorally important constituencies that are peaceful should experience higher electricity rates than electorally important constituencies that experienced conflict.

H4a – Violence and Swing Interactions: Peaceful swing counties will experience larger changes in electrification than violent swing counties.

H4b – Violence and Core Interactions: Peaceful core supporter counties will experience larger changes in electrification than violent core supporter counties.

Electoral Cycle Hypotheses

H5 – Electoral Cycle: Electricity will increase as the election nears and decrease once it has been concluded.

In addition to the straightforward electoral cycle hypothesis, I also propose the possibility of an interaction between the timing of changes in electricity and where they are geographically targeted. Conditional on there being a large pre-electoral increase in aggregate electricity outcomes, what kinds of counties experience larger shares of these improved conditions? The hypotheses below provide three variations on this idea according to the targeted geographic constituency.

H6a – Electoral Cycle and Swing Targeting: Swing counties will experience larger changes in pre-electoral electricity improvements than core or opposition counties.

H6b – Electoral Cycle and Core Targeting: Core supporter counties will experience larger changes in pre-electoral electricity improvements than swing or opposition counties.

H6c – Electoral Cycle and Reconstruction Targeting: Counties with higher levels of conflict will experience larger pre-electoral changes in electrification than peaceful counties.

3. The Electricity Sector in Uganda

Uganda is a largely rural, developing country in close proximity to the Nile River and Lake Victoria and therefore has the potential to take advantage of these geographic features to provide electricity to its citizens. However, like many natural resources, the mere presence of resources for electricity production is clearly insufficient for the provision of electricity. Large-scale political instability and violent conflict had a deleterious effect on the Ugandan government's capacity and incentive to provide electricity for its citizens after the country's political independence in 1962. The country was unable to take advantage of its proximity to natural resources and instead electricity production plummeted during the rule of Milton Obote and Idi Amin. The sector appears to have benefited from the relative stability of the post 1986 period under the NRM. However, studies in this later context have shown that while access to electricity allows businesses to spread and develop, when electricity provision is unreliable it contributes to the failure of firms (particularly smaller ones) in Uganda (Tushabomwe-Kazooba 2006).

In the immediate post-war period, the Ugandan government worked with the World Bank to improve the performance and efficiency of its power sector, which was deemed a "priority area" for post-conflict reconstruction at the time (Kreimer 2000, pg 65). However, the Bank's power project failed to improve the nationally owned Uganda Electricity Board's (UEB) "financial performance and operational efficiency", as the UEB staff doubled in size but productivity remained significantly below targets.

As the post-war period progressed there were several important political reforms in the electricity sector. During the 1990s, the electricity sector remained under government control but reforms were introduced late in the decade with the passage of the 1999 Electricity Act. The Uganda Electricity Board (UEB) was "unbundled" into separate categories for generation, transmission, and distribution. The private sector was then allowed to participate in the generation and distribution of electricity through concession agreements with the parastatals, Ugandan Electricity Generation Company Limited (UEGCL) and Ugandan Electricity Distribution Company Limited (UEDCL). However, the Ugandan Electricity Transmission Company Limited has remained in control of the Ugandan government without private sector involvement (Mawejje et al 2013). The UETCL is the sole purchaser of bulk electricity from the generation company and is responsible for dispatching it to distributors, as well as acting as the "sole system operator" (Electricity Primary Grid Code Regulations 2003). UETCL therefore plays a key role in decisions about the amount of electricity supply available through the

national grid, as well its transmission throughout the country. While the privatization reform signaled the government's willingness to allow, at least in part, the demand of the market to dictate how the spread of electricity would occur over its territory, it has still managed to retain a large influence in the sector in both formal and informal ways.

Electrification Under the National Resistance Movement

Qualitative evidence from government documents and Ugandan media helps shed light on the NRM government's strategic efforts concerning how and where access to electricity should be targeted. Rural electrification became an important mission for the Ugandan government. The Rural Electrification Agency (REA) and Rural Electrification Fund (REF) were created to prioritize and promote the extension of electricity to a larger swath of the country's large rural population. In 2001, only 1% of rural households had access to electricity and the initial rural electrification strategy aimed for a 10% threshold by 2010 (Lule 2006). When the government liberalized the electricity sector, it moved to a demand driven policy approach for the extension of electricity and the national grid. Politicians and bureaucrats soon found that this strategy would have difficulty overcoming the large costs of extension to sparsely populated rural areas since private investors had little interest in extending the national electricity grid into areas where a large number of consumers were poor and would likely be unable to afford the connection of the electricity to their homes. Furthermore, rural areas usually lacked the agricultural or mineral industries that would create commercial demand for increased access to the national electricity grid. In an effort to overcome this lack of demand and still improve access to electricity in these areas, the government sought to "promote public private partnerships to electrify them in a realistic time" (Lule 2006). The Rural Electrification Fund was also designed to provide subsidies for the extension of the national grid to low demand areas. Since the number of low demand areas is larger than the supply of projects by the REF, subsidies provide an avenue for government led targeting of electrification projects in low demand areas that are strategically most beneficial for the NRM.

Political manipulation of the process of funding projects through the REF has been documented by both government and media in Uganda. REA officials have "complained of substantial political interference, which has seen senior political figures in government pressure the agency to divert from its original plans and thread electricity lines to their constituencies without any contingency plans for the additional costs" (Oluka 2015). In its annual report for 2008, the REA acknowledged these problems, stating "political leaders want their constituencies prioritized for service, thus exerting undue pressure on the responsible institutions in spite of the limited resources" (REA Annual Report 08/09, pg. 35). This information suggests that both senior political figures in the central government and local political actors, such as

Members of Parliament, interfere in the technocratic electrification process to direct projects towards particular areas.

Partially in response to this political interference, in 2008 the REA developed the Rural Electrification Master Plan to rationalize their planning. The plan outlines the factors that go into the selection of projects. The REA describes the financing for REF projects according to a combination of the following criteria: Least cost (lowest tariff) lines projects, regional distribution to achieve equity, connection to district headquarters, connection to large rural industrial activities, and presidential pledges and manifesto schemes. Of the presidential pledges there are "over 200 schemes that have been implemented and commissioned under this scheme. Another 114 schemes have been either partially implemented or surveyed but currently have no funds to complete them" (REA Annual Report). While this master plan criteria has improved the transparency involved in selecting electrification projects, there remains a degree of opacity in the process. First, there is no clear guidance on how to weight the different criteria. Particularly, the presidential pledges and manifesto schemes provide a mechanism for senior level government officials to influence the location of projects with little oversight.

Beyond the politicization of infrastructure improvement, evidence also suggests that the flow of electricity may be manipulated temporally and geographically to maximize NRM interests. First, the government has demonstrated a willingness to heavily subsidize electricity tariffs in the months approaching elections, making electricity more widely accessible for potential voters, while allowing the tariff to rise in the aftermath of the election.[8] The government also increased its pre-electoral generation capacity before the 2011 election by purchasing expensive (relative to its hydroelectricity) power from thermal power generation companies. After the election the government appeared more willing to then default on its payments to thermal power generators who then shut down generation causing large power shortfalls (Atwijukire 2012).

Secondly, the decision of where to make targeted power cuts provides an avenue for favoring particular geographic areas or types of consumers. One of the leading complaints by consumers to the ERA's Electricity Disputes Tribunal concerns "discriminative load shedding patterns" (Tumwesigye et al 2011; ERA 2013). Specific parts of the grid, such as that serving the State House in Entebbe (where the President resides) are generally not subject to load shedding. Some of these areas experience relatively little load shedding because they are connected to a grid that operates on the airport in Entebbe or the main hospital in Kampala (Katerrega 2009). However, for other areas it is unclear why they experience less load shedding and anecdotal evidence

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[8] Data available from Electricity Regulatory Authority: http://www.era.or.ug/index.php/statistics-tariffs/tariffs/bulk-supply-tariffs (accessed Feb 1 2017).

suggests that strategic political reasons play a role. As mentioned briefly in the introduction, a series of protests and riots occurred over increased load shedding in the aftermath of the 2011 election. These protests took place across various parts of the country and in several cases turned into violent clashes with state security forces in November and December. Rather than continue to confront protestors with security forces, the government and Umeme decided to initially ease the load shedding burden for areas where protests had broken out while increasing the burden on relatively "passive" areas (Bagala 2011). A week later Umeme announced a new load shedding schedule that reprioritized electricity supply for domestic consumers and small and medium enterprises, who were key players in the protests, over larger industries (Kalungi 2011).

While this qualitative evidence provides reason to believe that electricity is politically manipulated in Uganda, it does not provide a systematic pattern of where and when targeting of electrification takes place. Similarly, existing research and theory is underspecified when it comes to explaining post-conflict cases of electricity provision. Wibbels et al (2016) provide compelling quantitative evidence concerning electrification in post-conflict cases, but focus on longer changes in night light and do not address annual fluctuations in electricity provision. This paper also builds on their findings by focusing on the competing theoretical mechanisms that underpin an incumbent's strategic choices in allocating electricity to areas of past armed conflict. Furthermore, the research on electrification in India (Min 2015, Baskaran et al 2015) and South Africa (Kroth et al 2016) focuses on electoral incentives for provision and does not delve into either country's history of armed violence. To help bridge this gap in the existing literature, I now provide quantitative evidence on geographic and temporal changes in electricity with data from Uganda.

4. Data & Research Design

In order to test the relationship between the independent variables of interest and subsequent electrification I use satellite imagery on the production of visible light at night. Specifically, I use data from Version 4 of the DMSP-OLS Nighttime Light Time Series provided by the National Oceanic and Atmospheric Administration.[9] Satellite imagery has been used as a means of testing arguments about economic development (Michalopoulos and Papaioannou 2013) and the politics of electricity provision (Min 2015). Satellite data on night lights has also been demonstrated to be a reliable proxy measure for electricity provision in the developing world and specifically in rural Africa by comparing it to ground-based measures (Min et al 2013, Min and Gaba 2014).

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[9] Data available at: http://ngdc.noaa.gov/eog/dmsp/downloadV4composites.html

However, these data should be considered only as proxies as researchers have pointed out that night light imagery is a noisy measure of economic development but also (to a lesser extent) electricity provision (Addison & Stewart 2015).

In order to help address issues of measurement error, I also run the analysis using calibrated annual night light data following a method proposed by Elvidge et al. (2014). This calibration method helps to make annual observations of light as measured by different satellites[10] more comparable over time. This method assumes that light remains constant in a reference area and adjusts the pixel intensity for all other satellite years and areas accordingly.

To construct a panel dataset on annual night light, I take yearly measurements of the mean value of luminosity within each Ugandan county's boundaries.[11] Principally, I use the county administrative unit (which is the unit just below the district in Uganda) because its shape, size, and number has remained remarkably stable in comparison to changing districts stemming from decentralization. Additionally, the county is the smallest administrative unit for which consistent electoral data is available in Uganda. Alternative approaches, such as the use of a grid level analysis, would not reduce the level of aggregation since commonly used 0.5'x0.5' grids are actually larger than most counties in Uganda.

The main measure for the dependent variable is the annual growth in mean luminosity at the county level. This specification of the dependent variable allows me to estimate the effect of the *timing* of elections on the growth in county level light and the interaction with electoral and conflict variables. Alternative dependent variables, such as the percentage of households with access to electricity as measured in the Ugandan census, are less attractive in this case because they fail to provide an opportunity to explore electoral cycles and electricity fluctuations and also do not overlap significantly with geo-located data on local levels of violence. Other potential sources of survey data on electricity access that occur more frequently (e.g. Demographic and Health Surveys, Afrobarometer) are also insufficient because they do not provide representative samples at the county level.

In order to measure the main independent variable, electoral incentives for the incumbent regime, I use two main measures. First, I use a measure of electoral competitiveness in the presidential election by employing the margin of victory for the county's leading presidential candidate. This variable is used to test the swing county hypothesis (H1). Secondly, I use the vote share for President Museveni in the previous election in order to test the core supporter hypothesis (H2). A third measure, the share of MPs in the county belonging to the NRM, was also used to gauge legislative incentives for targeting. Though this is an imperfect measure because it doesn't provide

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[10] This is important because the DMSP-OLS sensor did not have on-board calibration itself.

[11] I remove all portions of each county that are covered by bodies of water.

information about the closeness of elections, the NRM MP share showed no significant relationship to light output and is not shown in the results below.

To measure the prior level of conflict at the county level I use a running count (stock) of total conflict events for each year since 1997 when data from the Armed Conflict Location Event Dataset (ACLED 2017) begins. This measure represents a stock of a county's recent history of conflict. I conduct additional analysis using alternative variables that measure annual changes in conflict events, as well as the location of the initial formation of rebel groups coded from Lewis (2017).

Empirical Models, Endogeneity & Controls

To estimate the relationship between the main variables of interest and annual changes in luminosity I use OLS regression with county level controls and fixed effects. The costs of improving electricity provision may be particularly higher in areas with low levels of electricity to begin with, areas far from the capital and largest Ugandan city of Kampala, and areas with low population density and difficult geography. I therefore include county specific variables for the mean luminosity level (lagged by one year), distance from Kampala, population density, and variation in altitude. To account for the possible influence of local land use I use a county specific measure of local vegetation from the Normalized Difference Vegetation Index (NDVI). Additionally, to account for possible drought related causes of fluctuation in yearly electricity provision I also create a variable for average annual vegetation in counties bordering Lake Victoria. I discuss this issue in more depth in the next section. Despite these controls, it remains possible that unobserved county level factors may play a role in the flow of electricity, the levels of support for Museveni, or the prior levels of conflict and therefore bias the OLS estimates. To account for time-invariant unobserved factors I include models with county level fixed effects.

In addition to concerns about endogeneity, statistical inference is also threatened by potential non-independence between units of analysis. One form of possible unit dependence is the spatial correlation of electrification in counties that are geographically close. Since the flow of electricity depends on the structure of the national grid's network (including the location of substations, transmission lines, and distribution lines), a county's location in the network influences the probability that it experiences annual changes in light output. To account for this possibility of spatial correlation and network dependence I rely on several robustness checks. First, I perform robustness checks that include data on the location of electricity transmission lines in 2004. Since panel data on the construction of substations, transmission lines, and distribution lines is not currently available for Uganda, I also rely on several other methods. County level fixed effects help account for counties that experience no variation in the presence of electricity infrastructure over the time period of interest.

This is likely most important for counties that remain unconnected to the national grid through 2012. Secondly, I also allow for standard errors to be clustered at the sub-region level (Uganda is divided into 11 sub-regions) since the government targeting strategy could arguably occur at a similarly aggregated level. For example, increased load shedding or infrastructure failure at a substation affects electricity levels for all counties connected to that substation. Finally, to account for spatial dependence, following Hsiang (2010) I also use a non-parametric GMM estimator that corrects standard errors for spatial and serial correlation. The main results presented below are robust to these alternatives.

5. The Correlates of Electricity Provision in Uganda

The first set of empirical analyses concerns the annual change in night light from 1997 to 2012. Figure 2 shows the mean annual change in luminosity for all counties in Uganda according to the electoral cycle. The data shows that the largest average annual growth occurs in the year prior to the presidential election while election years experience a large decrease and the lowest average annual growth during the electoral cycle. National elections occur early in the calendar year in Uganda (May 1996, March 2001, Feb. 2006, Feb. 2011) such that the election year as measured here is predominantly comprised of months that are part of the post-electoral period. I therefore interpret the election year measurements as the post-electoral period level of luminosity measured with some error. (The direction of this systematic measurement error likely works to bias the size of regression coefficients towards zero and I discuss this in more detail after presenting the regression results).

Figure 2
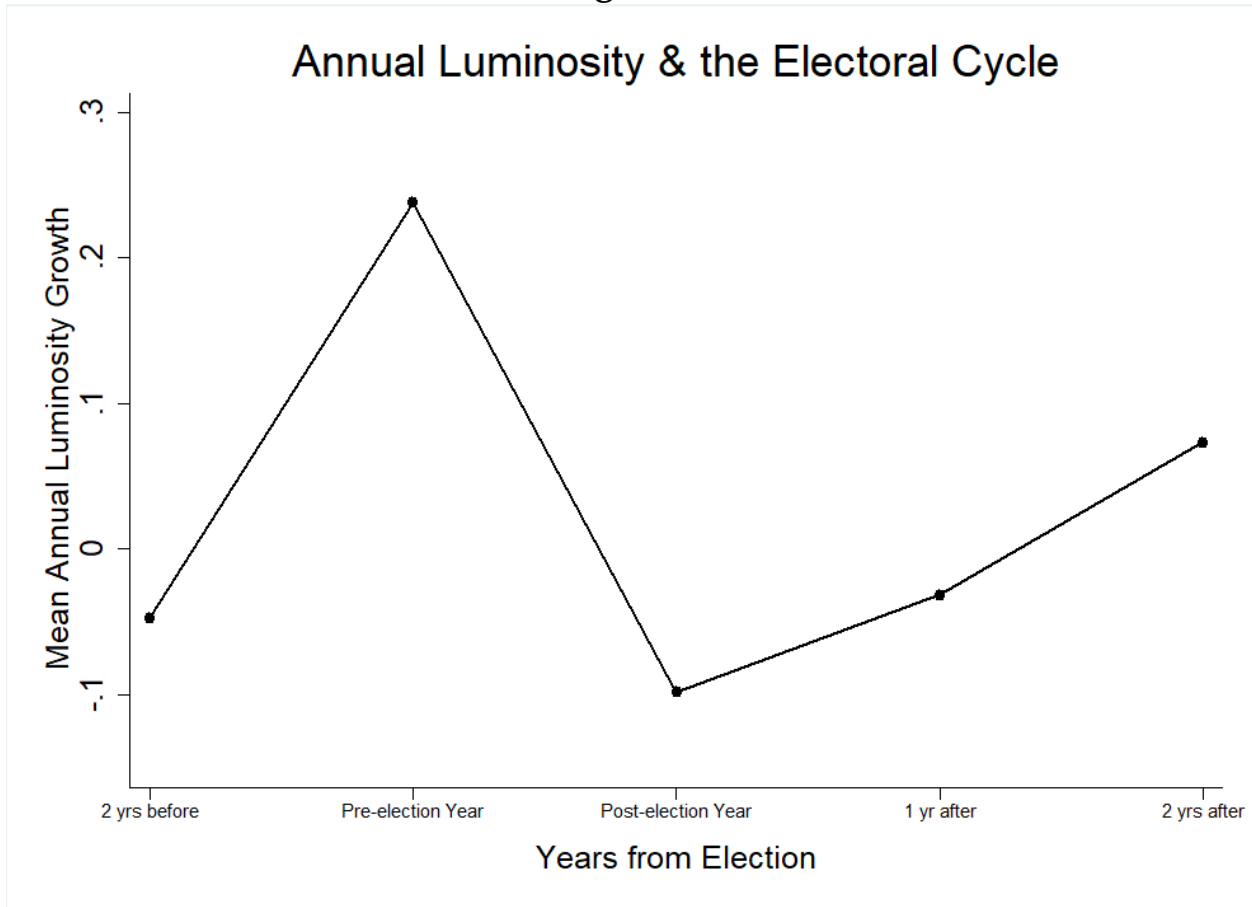
While this data is suggestive, it is possible that systematic changes in other variables over the course of the electoral cycle are the real cause of the changes in light growth. While it is difficult to find annually varying control variables at the county level for the entire time period of interest, it is possible to find variables for several key potential confounding variables for at least part of the period covering the last 3 elections. Two such variables are the number of conflict events as reported in ACLED (coverage from 1997 to 2012) and NDVI (coverage from 2000 to 2012). The NDVI data is helpful in a few respects. The high-resolution nature of the data makes it well-suited for measurement at the county level. Secondly, green vegetation is closely related to rainfall (a correlation of 0.9 at the country level as reported in Miguel et al 2004). This NDVI data gives us important information about local economic conditions and crop choice in a largely rural and agricultural economy like Uganda's. It may also be particularly important for understanding electricity provision since Uganda relies heavily on hydroelectricity for its national power grid and its output is supply-constrained. Lake Victoria is particularly important for power generation and itself is heavily reliant on rainfall to maintain water levels (Riebeek 2006). The occurrence of drought could therefore be the cause of annual changes in light output rather than electoral concerns

and the NDVI as a proxy for this. In order to proxy the level of rainfall near Lake Victoria I create an annual measure of vegetation averaged across the counties that border the lake. I also include a lagged measure of the mean value of county level luminosity, since the baseline level of electricity may have an important effect on the potential for growth. For example, counties with a mean value of zero cannot have negative growth and may be less likely to have large amounts of growth in one year since power infrastructure is likely limited. I also use several measures that vary for certain periods but not annually, including the population density of each county based on the 1991 and 2002 censuses and the margin of victory for the county winner in the previous presidential elections.

To test the effect of the electoral cycle on light output (H5), I use OLS regression with these control variables, county-level fixed effects, and time trends. The results of this analysis are shown in Table 2. All models presented include a linear time trend but the results are also robust to alternative specifications using quadratic and cubic time trends. Model 1 includes one dummy variable for the post-electoral period (election year) and a separate dummy variable for the pre-election year. If the government uses electricity as a carrot to gain votes in the lead up to an election, then most of the months in the actual election year are post-election months when campaigning has already ended. While this introduces some measurement error into these variables, the measurement error may work to underestimate the size of a potential pre-election *increase* and a post-election *decrease* by shifting 2 to 3 months of the pre-electoral period into the post-electoral measurement. Despite this measurement error, both of these variables are highly significant and have large effects in the theoretically expected direction. In model 1, election years are associated with a decrease of 0.135 in luminosity value while the pre-election year is associated with a nearly identical increase of 0.147 in luminosity value. These point-estimates are equivalent to marginal effects approximately the size of 1/6th of a standard deviation in the annual growth of light. For a county at the mean level of luminosity (~0.76 in this time period), this effect is approximately an 18% change.

A second empirical question about these annual changes in light output is where the pre-election increases and election year decreases are taking place across the country. Do annual changes vary across counties or are pre-election spikes in light merely temporary increases which dissipate quickly in the same counties during the election year? Models 2 and 4 in Table 2 provide evidence that these effects come from within county variation. Model 2 introduces separate interaction variables for the pre-electoral and post-electoral dummies and the margin of victory for the county's winner in the previous presidential election. The *pre-election X margin* interaction variable uses the margin of victory from the previous round of elections while the *election X margin* interaction variable uses the current election year's margin of victory. The results are robust to using the lagged election margin of victory for both interaction variables.

Model 2 (and model 4 which includes fixed effects) shows that changes in light output are *decreasing* in the margin of victory during pre-election years while *increasing* in margin of victory during election years.

Table 2: Changes in Annual Luminosity

	(1)	(2)	(3)	(4)
Margin of Victory	-0.044	-0.087*	0.086	0.150**
	(0.041)	(0.052)	(0.063)	(0.070)
Pre-electoral year	0.147***	0.419***	0.127***	0.424***
	(0.037)	(0.110)	(0.033)	(0.109)
Pre-electoral X Margin		-0.466***		-0.536***
		(0.132)		(0.149)
Post-electoral year	-0.135***	-0.497***	-0.104***	-0.303***
	(0.044)	(0.149)	(0.039)	(0.104)
Post-electoral X Margin		0.721***		0.393***
		(0.215)		(0.137)
Conflict Events Stock (10)	0.005**	0.006***	-0.002	0.000
	(0.002)	(0.002)	(0.006)	(0.006)
Population Density (ln)	0.064***	0.066***	-0.141**	-0.145**
	(0.020)	(0.020)	(0.055)	(0.056)
Vegetation Index (1000)	-0.036	-0.043*	0.004	-0.063
	(0.025)	(0.026)	(0.072)	(0.076)
Mean Lights (lagged)	-0.033***	-0.032***	-0.464***	-0.455***
	(0.010)	(0.010)	(0.072)	(0.074)
Distance to Kampala	-0.035*	-0.035*		
	(0.020)	(0.020)		
Distance to Border	0.026	0.034		
	(0.028)	(0.028)		
Altitude deviation	0.004	0.009		
	(0.016)	(0.016)		
Time	0.010***	0.008***	0.029***	0.028***
	(0.004)	(0.003)	(0.008)	(0.008)
Constant	-19.99***	-16.96**	-56.58***	-53.85***
	(7.144)	(6.533)	(16.268)	(15.521)
R^2	0.03	0.05	0.21	0.22
N	2,020	2,020	2,020	2,020
Fixed Effects	No	No	Yes	Yes

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Note: Margin of victory for county winner in previous presidential election. OLS, s.e. clustered at county level.

Figure 3: Electoral Cycle by Margin of Victory

Average Marginal Effects with 95% CIs
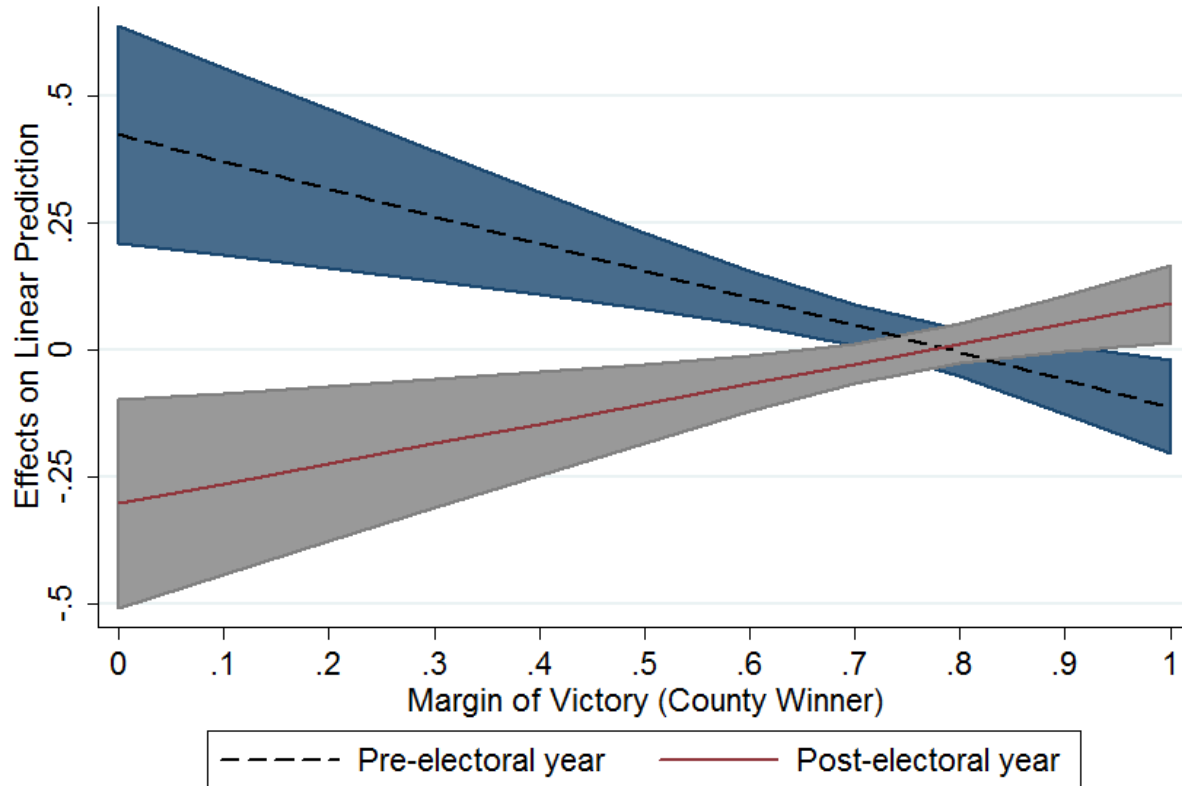
Figure 3 plots the average marginal effect of the post-election year and pre-election year variables across the values for margin of victory. Given the similarities in the magnitude of effect and the pattern of interaction with margin of victory, as well as the inclusion of county fixed effects, there is evidence to believe that the spikes in light growth are largely targeted to swing counties rather than core supporters but that these increases dissipate almost entirely in the next year. The annual changes in light are strongly negatively associated with the margin of victory for the county winner. The more competitive the election, the larger the increase in the pre-electoral period and the larger the decrease in the post-electoral period. The estimated effects are essentially zero when the margin of victory approaches 70% for the county's winner and in very uncompetitive areas (strongly opposition and supporter) night light growth is negative in the pre-election period and positive in the post-election period.

In order to more directly test the relative explanatory power of the core vs swing hypotheses, I also estimate models that include measures for both electoral competitiveness (H1: Swing) and President Museveni's vote share in the previous election (H2: Core). Table 3 presents the results of this analysis and suggests that indeed 1) swing constituencies experience greater pre-electoral electricity increases than either

core or opposition strongholds and 2) swing constituencies experience greater post-electoral decreases than either core or opposition strongholds. These patterns can also be viewed graphically in Figure 4 where a clear non-linear relationship is shown between changes in light and Museveni's vote share.

Figure 4: Predicted Changes in Light & Support for Museveni
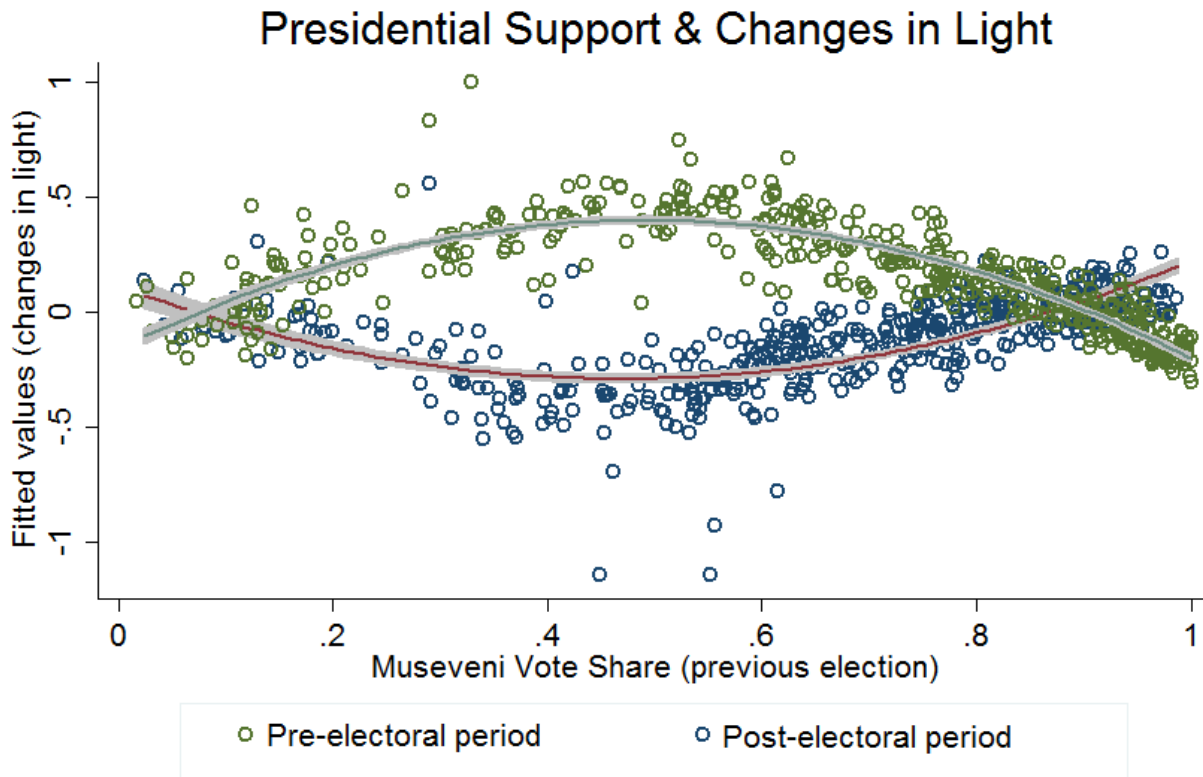
However, using annual measures of night light, combined with a lack of randomness in the timing of elections, makes interpreting the results of this analysis somewhat difficult and a causal interpretation particularly fraught. The quantitative results combined with qualitative evidence is suggestive that the use of electricity as a campaign tool leads to a spike as the election nears but that most of this positive growth is lost in the immediate aftermath of the election when political actors have fewer incentives to maintain such supply. In addition, it may be that the pre-election spike stems from unsustainable growth that comes at the cost of electricity provision in the post-election future. Since Uganda is reliant on hydroelectricity for generating power it is often even more severely constrained in the amount of electricity it can supply when droughts occur. Pre-election droughts in 2000 and the end of 2005 have been blamed for electricity crises and these could explain the drop of electricity output in the election year, though controlling for vegetation helps account for this effect.

Qualitative evidence also suggests that drought was not the most significant cause of the fall in water levels in 2000 and 2005 and that water levels may actually be endogenous to the political incentives of interest here. In January of 2006, just before the election, water officials at Uganda's Directorate of Water Development argued that the primary cause of falling water levels was the power officials' "failure to adhere" to the 1954 policy concerning the release of water from Lake Victoria via Nalubaale Dam (Riebeek 2006). In addition, the average growth in NDVI in 2005 from the previous year was *negative* despite there being a large increase in average night light output in 2005. In 2001 and 2006, years that saw large decreases in the average growth of light, the NDVI data shows positive average growth. This is consistent with the idea that yearly drought is not the cause of the changes in average light growth around elections. To further rule out the drought explanation I also include a variable in alternative specifications that measures neighboring Kenya's annual growth in night light. Since Kenya is also reliant on Lake Victoria for hydroelectricity, drought should induce a similar pattern. However, the electoral results are robust to the inclusion of Kenyan night light growth as a control variable (shown in Table 6).

Conflict and Electricity

The effect of prior conflict on luminosity growth is significantly positive in models 1 and 2 in Table 2. These models suggest that areas with a history of conflict experience increased electricity provision while more peaceful areas receive less. This finding is fragile however. When focusing only on changes in conflict levels *within* counties (over the period from 1997 to 2012), increased conflict does not appear to induce higher levels of electricity targeting. One interpretation of these results is that state-building responses to conflict are not especially sensitive to changes within counties over time but instead increased electricity provision is targeted at areas where the government has long observed conflict. This interpretation is weakened by the results of robustness checks as the significant relationship between conflict and light growth disappears when using alternative regression models that adjust standard errors for spatial correlation (see Table 6 in appendix).

Figure 5: Predicted Changes in Light & Conflict Levels

Conflict & Changes in Light
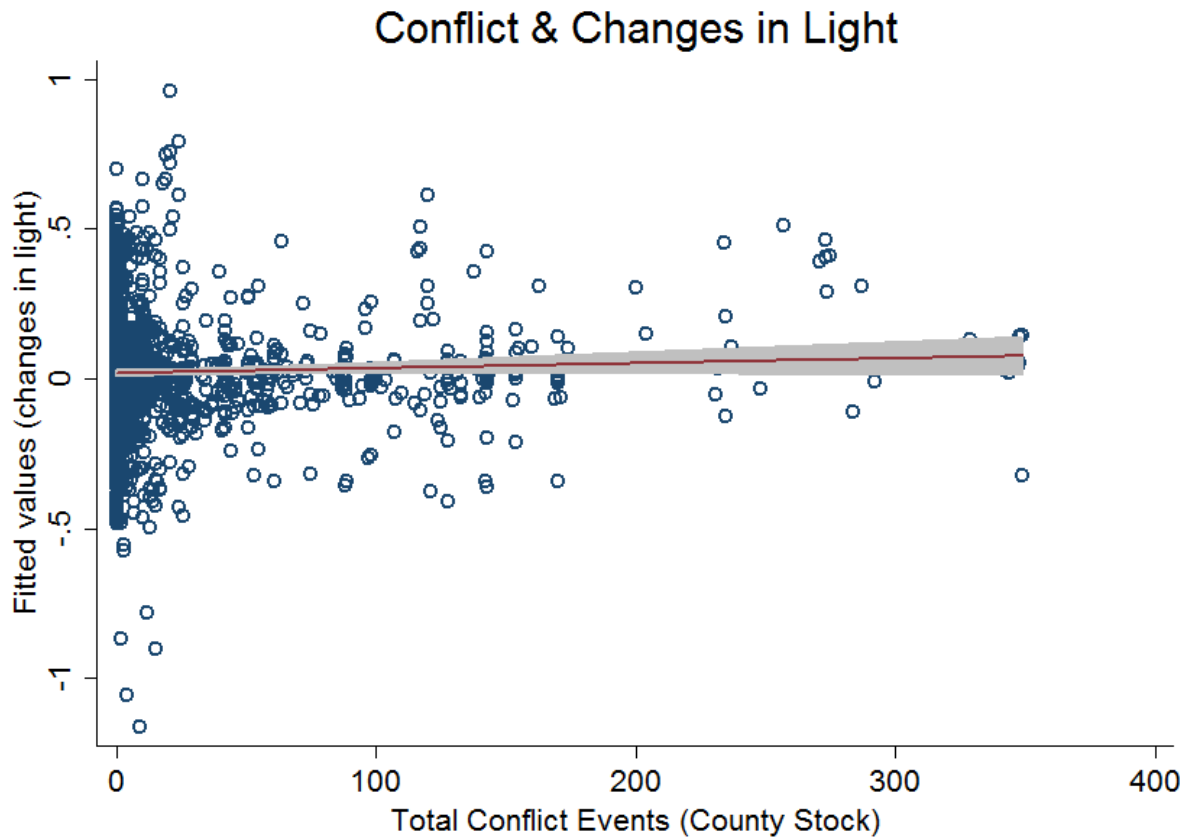
I also test for interaction effects between electorally important constituencies and conflict. To see whether electoral targeting is conditioned by the presence of conflict (H4a and H4b) I interact (separately) the variables for Museveni's vote share and the county's margin of victory with a dummy conflict stock variable indicating whether a county has experienced at least 5 conflict events in the past. The results of these models are shown as marginal effects in Figure 6. The left panel shows no statistically significant effect for incumbent vote share and no difference with respect to the conflict variable. The right panel shows that counties with conflict have a strong negative relationship between the margin of victory and light growth but this effect is not significantly different from the effect of margin of victory when conflict is not present. I also check for an interaction using different thresholds for the dummy and a continuous by continuous interaction with conflict. The results do not change and overall there is little evidence that electoral targeting is conditioned by conflict levels.

Figure 6: Interactions between Electoral Incentives and Conflict

Each plot holds the other variable at its mean
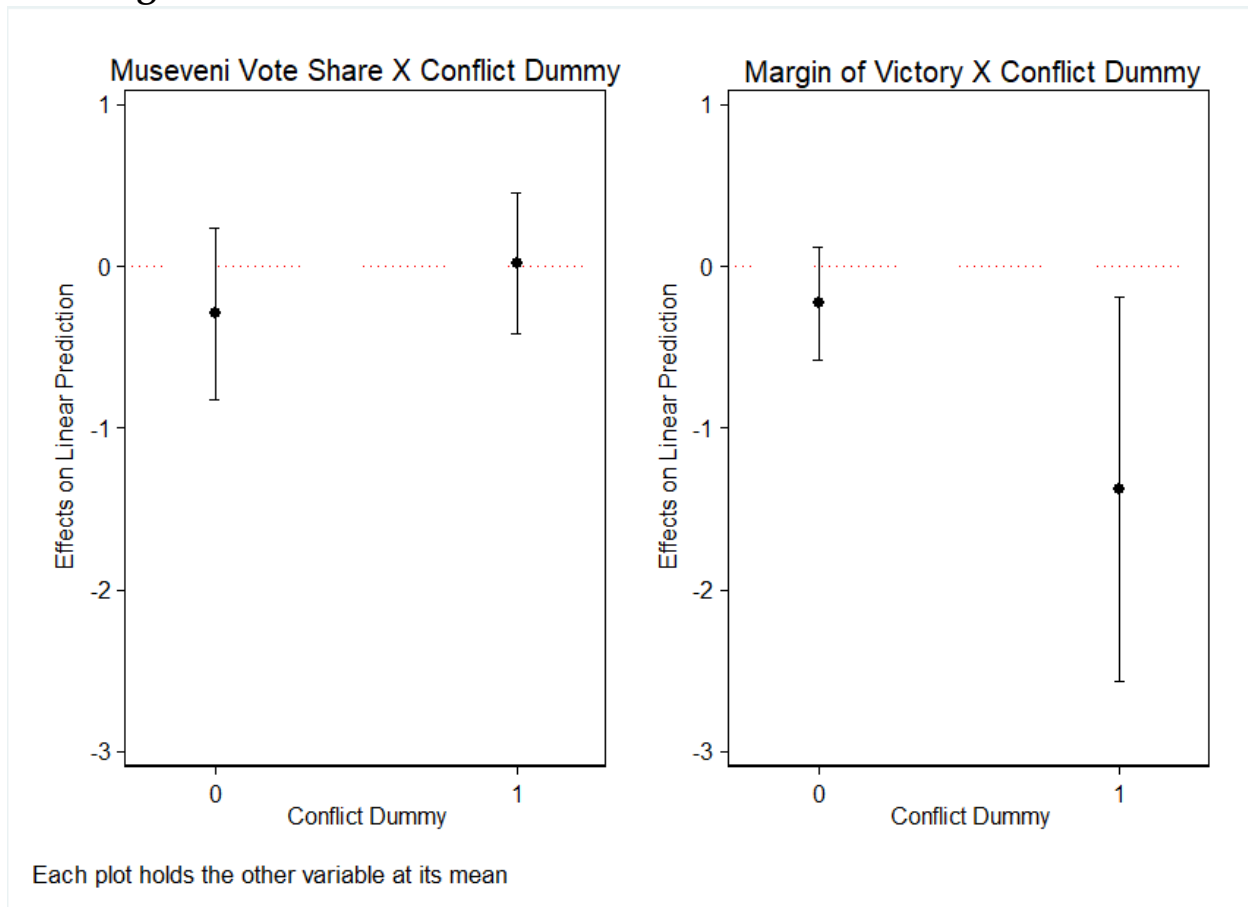
Finally, I also test for whether there is an interaction between the electoral cycle and a county's stock and flow of conflict events (H6c). The theory posited here does not predict an interaction effect since the incumbent's targeting of conflict zones with electricity has less to do with buying votes and more to do with preventing violent conflict. However, if rebel groups are expected to increase attacks before elections then we might expect the government to respond accordingly and target historically violent counties with increased public goods right before elections.

The results of this analysis in Table 4 (see appendix) do not support this type of interaction. The conflict stock – electoral year interaction variables are not statistically significant, while the conflict flow interaction variables are but have signs in the opposite direction of what one might expect if the government is trying to buy off violent areas before the election. In the pre-electoral year, the conflict flow is negatively associated with changes in luminosity while in the post-electoral year the conflict flow is positively associated with luminosity. For this period in Uganda at least, it appears that short-term political incentives are more important in explaining electricity provision than longer term state-building incentives. This interpretation is bolstered by

the strongly negative association between a county's distance from Kampala and its growth in luminosity.

Mechanisms: Government and Voter Responsiveness

There are two key mechanisms in the theoretical argument advanced here:
1. the responsiveness of voters to pre-electoral changes in local electricity
2. post-election punishment by the government based upon local electoral results

In this section, I provide empirical evidence for both of these mechanisms. First, I show that county level vote share for the president increases from the previous election when the county receives larger amounts of electricity before the election. Next, I show that the observed post-election reduction in electricity is larger in absolute terms when the change in county vote share between elections is smaller. To illustrate these mechanisms, I create two additional dependent variables where the unit of analysis is the county-election wave. To measure the responsiveness of voters I create a variable for the change in county level vote share in election j from the previous election j-1 for President Museveni:

$$Change\_vote\_share_{i,j} = share_{i,j} - share_{i,j-1}$$

To measure the government's punishment mechanism, I create a variable for the change in post-election luminosity.

$$Light\_post\text{-}election_{i,j} = light_{i,t+1} - light_{i,t}$$

The results of these analyses are presented in table 5. The first model uses the change in President Museveni's vote share at the county level over election cycles as the dependent variable. The key finding is the positive and significant relationship between changes in light in the pre-election year and the level of change in Museveni's vote share. The second model shows the results using changes in the post-electoral level of light. The key finding is the large and positive relationship between changes in the vote share for Museveni and the post-election changes in light. This suggests that counties where Museveni did worse relative to the previous election experienced less light in the post-electoral year. These results provide suggestive evidence that both voters and the government are responsive to the other's behavior in the sequence posited by the theory presented in this chapter.

Table 5: Voter & Government Responsiveness

	Change in Museveni Vote Share	Post-election Change in Light
Pre-electoral Change in Light	0.016***	
	(0.005)	
Change in Museveni Vote Share		0.127**
		(0.063)
R^2	0.45	0.81
N	445	445
Region Dummies	Yes	Yes
Control Variables	Yes	Yes

*p<0.1; ** p<0.05; *** p<0.01

Note: OLS Regressions, standard errors clustered at the county level.

6. Conclusion

The provision of reliable, affordable electricity is a crucial component of modern state-building and economic development in the aftermath of violent conflict. Yet little is known about how the distribution of this important service occurs over space and time in post-conflict countries. This chapter contributes to helping us understand this issue by providing a theory of how political incentives for the ruling government influence the process of electricity provision and evidence from Uganda to support this argument. The results suggest that increased electricity is targeted at swing counties in the time period before the national election but that these gains are mostly lost once the election is over. In addition, prior levels of conflict have a small but weak relationship with changes in luminosity. The data analysis suggests that prior levels of violence help to explain variation in luminosity growth across counties but do little to explain change over time within counties. To bolster these specific results on the flow of electricity provision, future research should examine the electricity infrastructure itself as a dependent variable in conjunction with outcome measures like luminosity.

Appendix 1: Additional Tables & Figures

Table 3: Core vs Swing (Changes in Annual Luminosity)

	(5)	(6)
Pre-electoral year	0.389***	0.450***
	(0.106)	(0.113)
Margin of Victory (county winner)	-0.014	0.144**
	(0.077)	(0.069)
Pre-electoral X Margin	-0.500***	-0.503***
	(0.144)	(0.160)
Post-electoral year	-0.540***	-0.333***
	(0.157)	(0.111)
Post-electoral year X Margin	0.662***	0.358**
	(0.224)	(0.146)
Museveni Vote Share	-0.144*	0.005
	(0.085)	(0.070)
Pre-electoral X Museveni Vote Share	0.071	-0.069
	(0.065)	(0.101)
Post-electoral X Museveni Vote Share	0.113	0.073
	(0.127)	(0.095)
Conflict Events (10)	0.004**	0.000
	(0.002)	(0.006)
R^2	0.05	0.22
N	2,020	2,020
Fixed Effects	No	Yes
Control Variables	Yes	Yes

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Table 4: Electoral Cycle and Conflict Interactions

	(7)	(8)	(9)	(10)
Pre-electoral year	0.149	0.120	0.155	0.155
	(0.040)***	(0.036)***	(0.039)***	(0.039)***
Total Conflict Event Stock	0.007	-0.002		
	(0.003)**	(0.006)		
Pre-electoral X Conflict Stock	-0.001	0.004		
	(0.005)	(0.007)		
Post-electoral year	-0.120	-0.103	-0.144	-0.144
	(0.047)**	(0.042)**	(0.045)***	(0.045)***
Post-electoral X Conflict Stock	-0.009	-0.001		
	(0.009)	(0.004)		
Total Conflict Event Flow			0.002	0.002
			(0.003)	(0.003)
Pre-electoral X Conflict Flow			-0.005	-0.005
			(0.003)*	(0.003)*
Post-electoral X Conflict Flow			0.006	0.006
			(0.003)*	(0.003)*
Constant	-20.151	-56.385	-21.996	-21.996
	(7.178)***	(16.357)***	(7.288)***	(7.288)***
R^2	0.03	0.21	0.03	
N	2,020	2,020	2,020	2,020
Controls	Yes	Yes	Yes	Yes
Fixed Effects	No	Yes	No	Yes

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Table 6: Robustness Checks for Changes in Annual Luminosity

	(11)	(12)	(13)	(14)
Margin of Victory	-0.063	-0.113	-0.068	0.115
	(0.067)	(0.092)	(0.069)	(0.055)**
Pre-electoral year	0.327	0.421	0.451	0.336
	(0.173)*	(0.207)**	(0.197)**	(0.090)***
Post-electoral year	-0.500	-0.500	-0.473	-0.313
	(0.104)***	(0.114)***	(0.106)***	(0.107)***
Pre-electoral X margin	-0.417	-0.508	-0.551	-0.444
	(0.233)*	(0.271)*	(0.258)**	(0.126)***
Post-electoral X margin	0.657	0.714	0.646	0.388
	(0.144)***	(0.163)***	(0.145)***	(0.135)***
Conflict events (10s)	0.004	0.006	0.006	-0.001
	(0.005)	(0.005)	(0.005)	(0.003)
Population density (ln)	0.039	0.059	0.041	-0.094
	(0.027)	(0.037)	(0.025)	(0.038)**
Mean Lights (lagged)	-0.024	-0.030	-0.027	-0.444
	(0.042)	(0.044)	(0.043)	(0.073)***
Distance to Kampala (100s)	-0.014	-0.019	-0.011	
	(0.024)	(0.031)	(0.029)	
Distance to Border (100s)	0.000	0.000	0.000	
	(0.000)	(0.000)	(0.000)	
Altitude deviation (ln)	-0.007	-0.004	-0.006	
	(0.028)	(0.032)	(0.029)	
Time	-0.000	0.000	-0.000	0.013
	(0.000)	(0.000)	(0.000)	(0.004)***
Mean Kenya light growth	0.391			0.312
	(0.054)***			(0.087)***
NDVI Border Lake Victoria		-0.095		
		(0.104)		
Transmission Lines (2004)			0.007	
			(0.014)	
R^2	0.06	0.05	0.05	0.23
N	2,443	2,020	2,443	2,443
Fixed Effects	No	No	No	Yes

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Note: Models 11-13 are non-parametric GMM estimators with standard errors corrected to account for spatial correlation (Hsiang 2010) for county centroids that lie within 50 kilometers of one another. Model 14 is OLS regression with county level fixed effects and the Kenya night light control added.

Electricity, Counterinsurgency Effects, & Government Targeting

Mechanism Description	Effect of Electricity on COIN	Effect on Electricity Targeting
Complementarities between electricity & security	Increase effectiveness and state presence in locality	Increases incentive to target electricity to conflict areas
Winning hearts & minds	Increase effectiveness	Increases incentive to target electricity to conflict areas
Commitment problem between government and armed groups	No effect, possible decrease if infrastructure becomes sunk cost	No effect or ambiguous
Potential increase in future development	Increase in attacks on infrastructure to prevent shift in BOP	Decreases incentive to build infrastructure in conflict areas
Increase in current development	Increase in outside option for potential rebel fighters	Increases incentive to direct flow of electricity in current period

Figure 7

Annual Luminosity Growth

Note: Dashed line represents Presidential election year

42
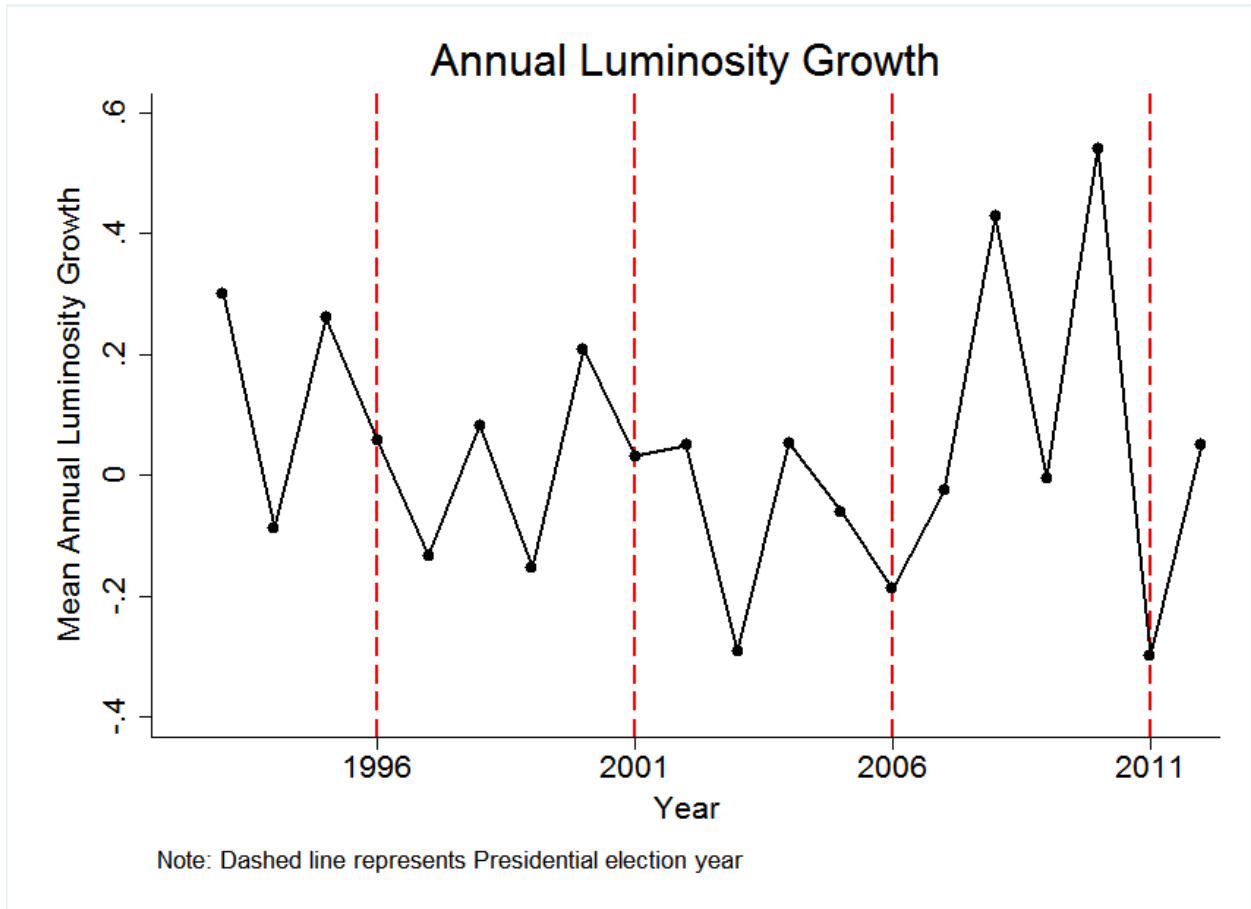
Figure 8: Changes in Night Light in Uganda

1992
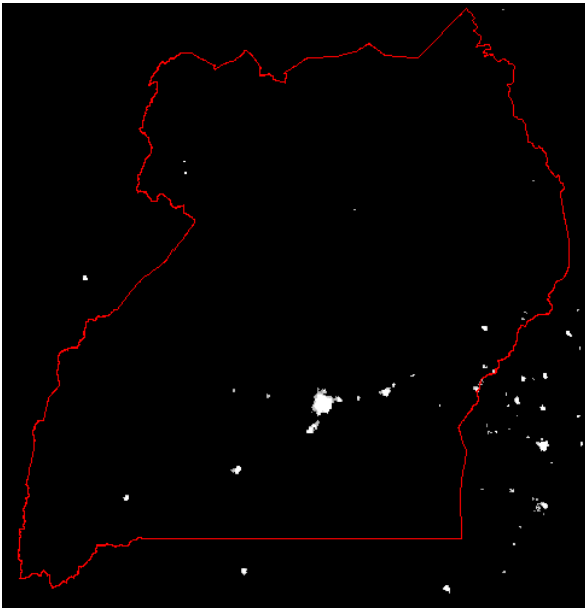
2012

Figure 9: Ugandan counties' pre-election and post-election light changes
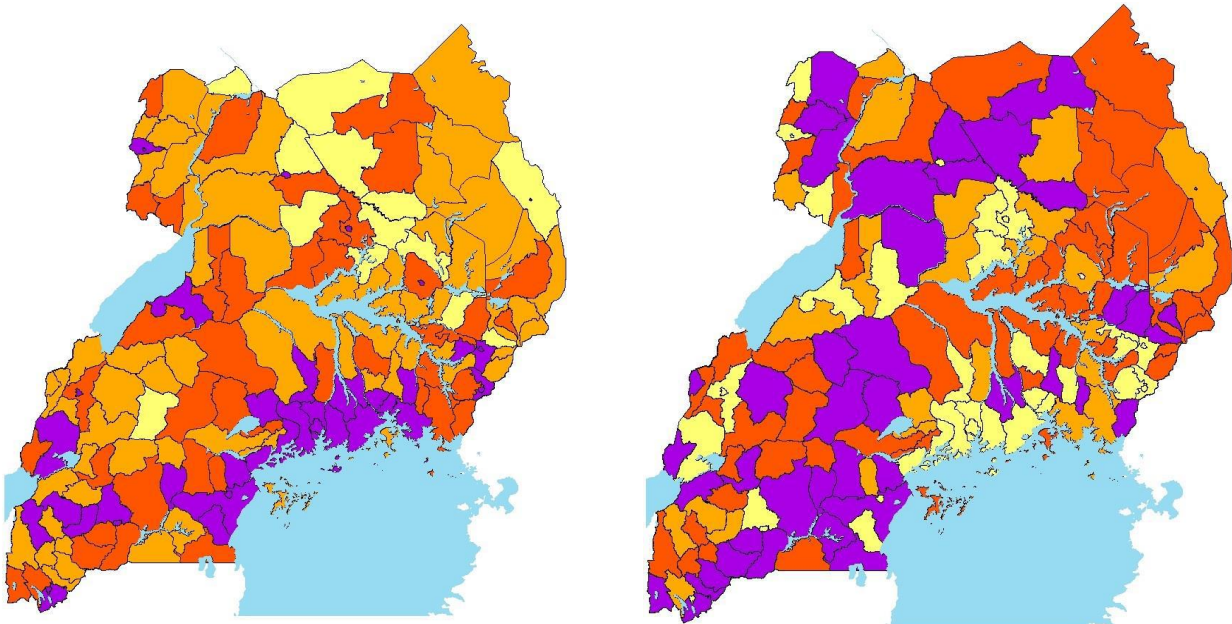
Mean Pre-election Light Growth
- Highest 25%
- Q3
- Q2
- Lowest 25%

Mean Post-election Light Growth
- Highest 25%
- Q2
- Q3
- Lowest 25%

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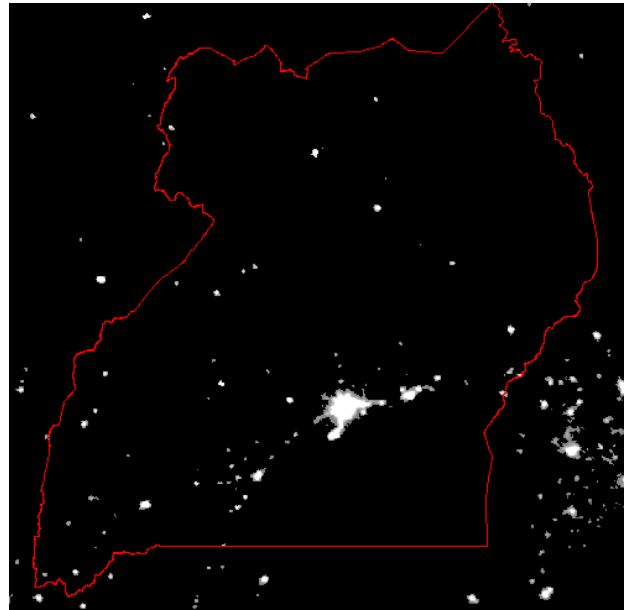December 2 2011. http://www.monitor.co.ug/News/National/688334-1282722-a2culpz/index.html (accessed Aug 4 2016)

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Chapter 3

Policing in a Post-Conflict State: Evidence from Uganda

Abstract

How do governments in post-conflict settings provide for policing within their countries? The rehabilitation of the police force is essential for peace and security during post-conflict reconstruction. I argue that short-term electoral concerns can overwhelm counter-insurgency and reconstruction incentives in shaping the geographic provision of security infrastructure. Focusing on post-war Uganda, I show that the construction of police infrastructure has increased over time as the incumbent regime has entrenched itself and brought relative stability to the country after decades of large-scale conflict. I specifically show that the geographic spread of policing has followed a distinct political logic. The government has followed a strategy of constructing police infrastructure in opposition strongholds for monitoring and repressive purposes in an effort to consolidate its political monopoly. Meanwhile, the government has largely failed to adequately address policing shortfalls in areas with a history of violence. I draw on two sources of evidence to corroborate this argument. First, I use qualitative evidence on the motives for geographic prioritization of police infrastructure projects and on the repressive use of police in Uganda. Second, I analyze panel data on changes in the construction of police infrastructure to demonstrate increased construction in Ugandan counties with lower levels of support in the last election for the incumbent regime. However, I find little evidence that counties with a history of violence are more likely to experience increases in police infrastructure than counties without violence. Finally, I show that increased construction of police infrastructure has large significant effects on shifting vote share to the incumbent president.

1. Introduction

The reconstruction of policing represents a challenge that is central to any post-conflict state's emergence from the ashes of civil war. How do states transform the police from a predatory institution into one with the capacity to serve and protect its people uniformly and help establish the order that might spur local and national economic development? When do states instead rely on their policing capacity to repress and control their country's citizens and political opposition?

I examine these questions by focusing on the policing efforts of the Ugandan government since 1986. Though the Museveni-led National Resistance Movement (NRM) government has maintained political control over the last 30 years, the security situation in varying parts of the country has remained tenuous. Large-scale violence has occurred in some areas while others have remained peaceful. Under these circumstances, the rehabilitation of the Ugandan police force from a colonial and post-colonial legacy of repression and the provision of police infrastructure and officers across the country was an important challenge for the government to undertake if it wanted to maximize long-term stability and peace in a larger portion of the country. Undermining this development has been the widespread and common temptation of authoritarian and democratic rulers alike to use the police for purposes of consolidating power. Post-conflict governments pursuing the paths of infrastructure reconstruction and democratization simultaneously are particularly vulnerable to this temptation to use police force to consolidate short-term political control.

This chapter contributes to our understanding of this tradeoff and post-conflict policing by offering an original theory of resource allocation within a country's security apparatus. I argue that post-conflict governments pursue policing strategies targeted at political opposition rather than potentially violent groups due to the relatively higher costs and lower benefits associated with the infrastructure investment required to effectively police these different non-state actors in resource constrained and weakly institutionalized settings. I also offer a rare systematic analysis of the construction of police infrastructure using a unique geo-located dataset of Uganda's police stations and posts. I complement the statistical analysis of this data with qualitative evidence on the nature of Ugandan policing and the construction of police infrastructure gathered from government records, newspaper archives, and other secondary sources.

This chapter proceeds as follows. First, I present a simple theory that helps explain where post-conflict governments will target police infrastructure when faced with opposition from both non-violent, political parties and violent groups. Next, I provide a brief background on the trajectory of policing in Uganda and qualitative evidence on the nature of policing in the post-conflict era. Then I present the data on police infrastructure and quantitative research design employed before discussing the

results. The final section concludes with a discussion of the findings and their potential implications for the quality and nature of policing in 21ˢᵗ century Uganda and beyond.

2. Theory

While there is little existing theory and systematic evidence in comparative politics on geographic and subnational variation in policing, there are extensive literatures on the state's use of repression as a tool of population control and the use of the coercive apparatus for autocrats to maintain power. Much of this work helps us to understand the conditions under which governments employ repression against political opponents and citizens (Lichbach 1987, Davenport 1995, 2007). In particular, scholars have developed important theoretical insights for how and when governments respond to mass protest and social conflict that has already developed (Earl et al 2003, Davenport et al 2011).

Recently, work in this area has begun to pay closer attention to the geography of repression at a subnational level and has considered how governments use repression differently in urban and rural settings (Christensen 2017), respond to subnational groups conditional on whether they use ethnic or religious claims (Hendrix and Salehyan 2017), and target swing areas with regime-aligned and coethnic internal security officers (Hassan 2018). Relatedly, scholars have long argued that the historical development of state capacity does not occur uniformly over a state's de jure territorial boundaries (O'Donnell 1993, Herbst 2000). Recent research has examined the uneven spread of state capacity over national territories and its implications for the state's role in important outcomes like coercion, conflict, and economic development (De Juan & Pierskalla 2015, Acemoglu et al 2015).

A second body of research examines the institutional design and development of the state's security apparatus (Taylor 2011, Svolik 2012) and the organizational tradeoffs for autocrats when facing multiple threats from both elites and insurgencies or popular uprisings (Roessler 2011, Greitens 2016). Finally, scholars have also investigated the specific role of the police as counter-insurgency and counter-terrorism forces (Bayley and Perito 2012, McCormick 2013), highlighting how repressive, centralized police can undermine efforts to reduce violence. This chapter builds upon these theoretical insights by focusing on the tradeoff between electoral and armed threats in order to develop a theory of the state's strategic deployment of policing capacity to the subnational level in weakly institutionalized, electoral settings.

The "Victor's Dilemma" for Security Provision

How do post-conflict countries manage the allocation of security forces and infrastructure at the subnational level to simultaneously maximize political support and

minimize new insurgencies? In this chapter I specifically focus on police infrastructure as one important part of this allocation process. The capacity to provide police infrastructure in a geographic area is important because it increases the state's ability to provide public order. In doing so it also increases the government's monitoring capacity of the local civilian population, as well as both political and violent opposition groups. This monitoring capacity may be used for multiple functions, including criminal investigations and intelligence gathering about rebel and terrorist groups, but also repressive state action against non-violent political opponents. From a perspective of post-conflict reconstruction, a first order condition for choosing where to allocate security (police) resources should arguably be to those areas that violence is most likely to occur. Observing where violence occurred in previous years provides information for the incumbent when making decisions about where resources should be used to diminish future violence. If the incumbent's objective is to maximize future peace then the targeting of police resources should be positively associated with the level of violence in a locality in the past.

However, post-conflict governments have competing political incentives and objectives concerning where to target their monitoring and policing capacity. In some cases, the geographic location of violent opposition groups is different from the location of opposition party strongholds and this divergence forces the incumbent government to choose what type of opposition to target to maximize its interests. Under certain conditions the benefits of maximizing peace across its national landscape are outweighed by the government's incentive to use its monitoring capacity instead for repression against non-violent, political opposition. In the context of electoral politics, policing capabilities have the potential to be used by the incumbent government to harass and attempt to intimidate political elites and their supporters, break up political organizing, and deter collective action. These competing political objectives have direct implications for how a post-conflict government will target its policing capacity across its territory. Rather than focusing its efforts on areas of prior violence, a government with repressive objectives will be more likely to target its resources towards areas of staunch political opposition in the electoral arena in an effort to diminish voter turnout. Since it is very costly to persuade strong opposition partisans with vote-buying tools in opposition strongholds, repressing voter turnout can be an especially effective means of maximizing incumbent interests in these geographic constituencies. As local communities increase in their support for the incumbent, the necessity to diminish turnout does as well and this reduces the incentive to locate increased police infrastructure there.

In weakly institutionalized settings where elections are held, I argue that post-conflict governments will seek to maximize their short-term political goals by focusing on using its police force for electoral purposes rather than for longer-term goals of public order and state-building. Weak states emerging from civil war often find

themselves with weakly institutionalized and politicized security institutions and this places important constraints on the kinds of tasks that the institutions are able to effectively carry out. The maintenance of public order and the prevention of crime, terrorism, and rebellion, without the indiscriminate repression of civilians, requires a highly professionalized and well-resourced organization. In post-conflict settings where a new group has recently taken power, this entails high costs for the government in trying to transform a police organization that was previously politically and militarily opposed to it, and which often has varied and uneven capacity across geographic space. Furthermore, the construction of new police infrastructure in areas of high levels of violence often comes with the added costs of first pacifying the area and winning the hearts and minds of local civilians. Without this step, poorly staffed police stations often become the target of rebel groups for hit-and-run attacks and the raiding of armories with little capacity to retaliate.

However, this isn't to say that local police infrastructure and police officers aren't sometimes important actors in post-conflict zones. Local police can be effective partners with national militaries and paramilitaries by providing important intelligence about militant groups and monitoring them as they form, recruit, and carry out smaller initial attacks. Mobile police units or small police posts can be relatively inexpensive tools for state actors to use in shoring up security and intelligence gathering in areas with a history of violence and demobilized militants.

On the other hand, the use of the police for political and electoral purposes usually comes with significantly lower costs for the incumbent government overall. The arrest and harassment of public officials and political candidates requires far less investigatory resources than for the arrest of criminals, terrorists, or rebels which operate largely in secret. In these situations, the police often face non-violent political organizations that pose little danger to the security force itself, though the danger of sparking larger protests or riots still exists. This potential backlash against repressive government tactics makes it a less attractive strategy for incumbents to use in competitive, "swing" constituencies where a sizable portion of the local population could shift their vote to the opposition candidate. In opposition constituencies, the incumbent is already so unpopular and political opinions have often been polarized by the prior civil war and its legacy, that there is little reason to fear a *voter* backlash against the use of repression.[12] Finally, the benefits of reducing violence for the incumbent are often outweighed by the benefits of increasing the incumbent vote share. Potential threats to the incumbent are not equal across both time and space. Violence that is localized to remote regions and carried out by non-state groups with little

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[12] The incumbent does run the risk of a backlash by provoking electoral opposition supporters into increasing protests or escalating into an armed group themselves. The empirical evidence for this relationship is both mixed and contingent on timing and context (for examples, see Lichbach 1987, Rasler 1996, Moore 1998, Sullivan et al 2012).

popular support or political power are often downplayed because leaders see them as less threatening in comparison to the potential to lose an election in the near-term.

Hypotheses

The theoretical discussion above lends itself to several testable hypotheses. In this section, I discuss these hypotheses in the context of Uganda. My main theoretical argument suggests that post-conflict governments will focus their investments in police infrastructure construction in political opposition areas in order to maximize their electoral outcomes. It is stated as the "voter repression hypothesis" (H1) below.

The main alternative hypothesis in the victor's dilemma is presented as the "counterinsurgency hypothesis" (H2), which predicts that post-conflict governments will target police station infrastructure towards areas of historic violent conflict between the state and rebel or terrorist groups in an effort to fight against militants. We should expect to see support for this hypothesis in post-conflict environments where there is stronger institutional control over the incumbent's use of the coercive apparatus and relatively greater utility to using the police for the control of potentially violent groups than for repressing political parties. First, in post-conflict countries where the incumbent ruler's use of the coercive apparatus can be better constrained by the legislature, civil society, or third-party actors, we should expect the targeting of infrastructure to be less strongly tied to the electoral objectives of the ruler.[13] Secondly, if a post-conflict ruler controls a police force that has historically had greater institutional capacity and been an effective counter-insurgency and/or counter-terrorism force, then the costs of reforming the institution are of course lower. In these types of cases, we should expect less targeting of political opponents and more infrastructure in constituencies with a history of violence.[14]

A third hypothesis below is the "militant monitoring hypothesis (H3)" which states that the government will target the construction of smaller and cheaper police infrastructure in particular at areas of past militant violence as a way of monitoring their activity and collecting intelligence but not necessarily for fighting or the protection of civilians. We should expect post-conflict rulers to focus on investing in relatively

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[13] These constraining actors likely have their own biases and objectives for allocation. Therefore, what matters for explaining allocation patterns is their ability to constrain combined with having divergent interests from the incumbent. For example, opposition party legislators prefer increased security in their constituencies but not centrally, controlled repressive security forces. If opposition party legislators are powerful enough to effectively constrain the incumbent ruler, then we should expect less centrally controlled, police infrastructure construction in their constituencies.

[14] Anecdotally, police institutions with strong and disciplined counter-insurgency and counter-terrorism capabilities appear to be relatively rare for countries that experience civil wars. This is particularly the case in poor countries with weak states where civil wars end without government victory (negotiated settlements or rebel victories). However, the historical legacy of the coercive apparatus is an important cross-case variable to consider and should provide fruitful ground for extending my current study in the future.

inexpensive policing infrastructure to monitor militants in cases where they're resource constrained and primarily rely on other forces (militaries, paramilitaries, or militias) to fight insurgents. In these cases, the police can play a supporting, complementary role in counter-insurgency operations when the incumbent ruler increases their presence in a geographic locality.

A final alternative explanation is presented below as the "civilian protection hypothesis" (H4). This hypothesis states that the government will target its resources towards areas affected by prior violence carried out by non-state actors against unarmed civilians. This hypothesis follows a logic of maximizing the utility of the population more broadly since enhanced policing capacity can help in reducing violence against those citizens most vulnerable across a country's geography. This allocation choice is also consistent with an ideal type of policing institution in which the protection of civilians from violence is prioritized and areas with the greatest need for security in turn receive higher levels of police infrastructure from the central government regardless of their political affiliation. We should therefore expect to see evidence for H4 in post-conflict cases where incumbent rulers are highly constrained in their use of the coercive apparatus and the police as an institution are highly professionalized, disciplined, and capable of protecting civilians without succumbing to using indiscriminate repression in their own operations.

> **H1 – Opposition Voter Repression Hypothesis:** Counties with a lower vote share in the previous presidential election for the incumbent will be more likely to see construction of all types of police infrastructure.
>
> **H2 – Counterinsurgency Hypothesis:** Counties with a larger number of conflict events between military and rebel groups will be more likely to see construction of *police stations*.
>
> **H3 – Rebel Monitoring Hypothesis:** Counties with a larger number of conflict events between military and rebel groups will be more likely to see construction of small *police posts*.
>
> **H4 – Civilian Protection Hypothesis:** Counties with a larger number of conflict events between violent non-state actors and civilians will be more likely to see construction of all types of police infrastructure.

3. Policing in Uganda

In the next two sections, I first trace the historical development of the police in Uganda, before providing qualitative evidence that illustrates the politicized nature of contemporary policing in the country. The discussion provides some context for the conditions under which the police have developed in post-conflict Uganda with

important implications for the hypotheses described above. The evidence demonstrates that the case is one in which the post-conflict government was severely resource constrained with little institutional control over the president's use of the security apparatus. Furthermore, the NRM regime inherited an already politicized and repressive police institution with low levels of overall capacity and a lack of professionalization. These scope conditions, combined with the logic of the victor's dilemma, should increase our expectations of finding support for the voter repression hypothesis (H1) relative to the counter-insurgency hypothesis (H2) when we turn to the infrastructure data and quantitative analysis later in the paper.

Historical Development: Resistance Councils and National Police

The history of policing in Uganda is closely tied to the country's unstable political climate. The state's military and police, as well as non-state militias, have all played important roles in the maintenance of law and order, as well as the use of repression in the midst of disorder. The violent transition between regimes has had repercussions for the development of the police since the Ugandan police have historically suffered from a lack of institutional coherence and a personalization of control (often associated with state repression). The transition from one regime to another often meant that the newly installed regime found it necessary to embark on a project of reshaping the police for the primary purpose of its own political control. Despite the government's claims that police reform has benefitted the common good and public security, the project of police reconstruction by the NRM in the aftermath of its victory in 1986 has broadly followed the familiar path of political repression as those regimes that preceded it.

The historical development of a police force in Uganda has also been closely related to the role of the military in the country. In the colonial period, order was initially enforced primarily by the military in the early 1900s. Members of the Armed Forces constabulary established by the British government in 1900 served as both soldiers and policemen and played a central role in quelling indigenous resistance to the colonial government and protecting its property (Musiime 2012). In 1908, a formal police force was created and the responsibility of providing law and order domestically was handed over to the police while the military was used primarily for national defense. Furthermore, the colonial legacy of repressive police practices and a fusion with the military has made its mark on post-independence Uganda. In the post-colonial period, the military was often called upon by Ugandan rulers to quell political unrest, sometimes in cases where the police force initially failed to repress dissent that threatened the ruler (Omara-Otunnu 1987). The Obote regime used both institutions to discourage Bugandan resistance to its rule during the 1960s and ultimately repress political opponents. After a coup d'etat brought him to power in 1971, Idi Amin

notoriously transformed both the police and military into tools for his personal protection and the harassment and murder of political opponents.

The National Resistance Army's (NRA) first efforts at policing territory within Uganda took place while it was a guerrilla army in the early 1980s, partially through the local Resistance Councils (RCs) it created. These councils had multiple functions, including the election of local leaders, discussion of security information, and the creation of local militias for self-defense (Kasfir 2005, Weinstein 2007). These local RCs continued to play a role in post-conflict NRM policing as they became incorporated into the government administrative system and served as a form of grassroots democracy. The principal role of the RC structures in local policing was the gathering of local intelligence and coordinating with national military and police units to help prevent the formation of larger insurgent groups (Lewis 2012). RC leadership, and the civilians who collaborated with them, were often a target for rebel groups and therefore usually unpopular in areas where anti-NRM rebel groups operated. However, when RC institutions did have deeper local civilian support, they helped to development more effective counterinsurgency operations and contribute to the defeat of rebels[15] (Mudoola 1992).

In the initial period of post-conflict governance in 1986, President Museveni and the NRM regime inherited the national Uganda Police Force[16] of approximately 8000. The police force had been involved in the repression and corruption of previous regimes and Museveni quickly moved to reshape the institution to benefit the new government. Many of the existing officers were dismissed entirely, and no effort was made to re-assign them to positions within the government or military. There are two major explanations for the motives behind these dismissals. The first explanation, consistent with the NRM regime's own claims, suggests that the dismissals were targeted at "unqualified" members of the police force and were carried out in an effort to professionalize and reform the police for public service (Baker 2007). A second explanation argues instead that these dismissals were part of an effort by the new government to install more loyal recruits since the majority of the police force was

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[15] Mudoola 1992 specifically cites the strength of the RC in Busoga as being partially responsible for the government's eventual success against the Holy Spirit Movement (HSM). The HSM originated in the north but eventually marched to the east (Teso) and then south towards Kampala. It was upon crossing from Teso to Busoga in the central region that local civilian support helped the NRM defeat the rebels.
[16] Until 2014, the national police were named the "Uganda Police Force" and I refer to them as such throughout this chapter. In 2014, the force was renamed "Ugandan National Police." The Inspector General of Police Gen. Kale Kayihura at the time stated that the change was a response to Ugandans "hate [of] the word Force. Rebranding is meant to address those fears." Kayihura also revealed his view of the police as a service when he stated that a suggested change to "Uganda Police Service" was rejected because "cops are not waitresses." Quoted in Lumu, David. "Uganda Police changes name." *New Vision*. April 11, 2014.

previously comprised northerners associated with the previous regime (Omara-Otunnu 1987). Lewis (2012) describes the views of an opposition leader on the dismissals: "But after Museveni seized power from Okello six month's after Okello's coup, these men from Teso judged that Museveni would also be hostile to the people of Iteso. As evidence of his hostility to Teso, one UPA leader said that Museveni dismissed 3,000 police officers, many of whom were from Teso." (p. 130).

In either case, the Ugandan police force was left shorthanded and unable to perform its task of maintaining public order and peace in the domestic sphere. Instead the military was the lead force in maintaining internal security across most of the country until 1989. However, the police served as secondary security forces and participated in joint committees with the new military.[17] In this early period, these counterinsurgency forces battled in Kampala against a loose alliance of anti-NRM groups[18] that was largely comprised of former security forces from previous regimes. Shortly afterward, this alliance dissolved as the groups retreated towards their respective regional "homelands" in the northern and eastern parts of the country (Mudoola 1992). The NRA sought to disarm the retreating ex-security forces through a mixture of counterinsurgency, population displacement, and elite negotiation (Day & Reno 2014; Johnson 2015).

The most persistent violence in post-war Uganda came not from these former military and political leaders but from a more unexpected source. After retreating to their Acholi homeland, former regime elites from the UNLA formed the Ugandan People's Democratic Army (UPDA) but relatively quickly entered into a political settlement in the 1988 Pece Peace Agreement. However, fragments of the Acholi-based rebellion developed into other rebel groups without elite ties. Alice Lakwena's Holy Spirit Movement (HSM) (1986-1987) and the Lord's Resistance Army (LRA) (1988-2005) led by Joseph Kony sought to resist the new government, whose members hailed largely from the western and central regions of the country. While the HSM and LRA initially did receive support from local civilians in the Acholi sub-region, the groups eventually came to inflict escalating violence on the civilian population.

Unable to effectively protect northern rural civilians from rebel violence or militarily defeat the LRA, the government embarked on a project of forced population resettlement rather than engage in a costly effort to establish a stronger national police presence in conflict zones. Reasoning that such camps could perhaps be more effectively and inexpensively policed, the government forcibly displaced northern civilians from their homes into camps (Omach 2002; Branch 2009; Lichtenheld 2015). This represents a possible strategy of security provision for post-conflict governments

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[17] See, for example, "NRA, Police Form Joint Committee." *The Star*. March 11, 1986.

[18] These groups included the Uganda National Liberation Army (UNLA), Uganda National Resistance Front (UNRF), the former Ugandan National Army (FUNA) and the Uganda Freedom Movement (UFM).

with little existing state capacity in remote regions and a stringent budget constraint. While the police force became a more capable institution in many parts of the country, the northern part of the country remained burdened by this violent conflict and security provision remained mainly the province of the army into the 2000s (Baker 2007).

The Politics of Policing

While the initial period of reconstruction resulted in more stable institutions and national political development, the Ugandan police did not evolve in a straightforward manner towards a professional force. The NRM's reform of the police took on a militarized character along several dimensions. While the police and military are formally separate and autonomous institutions in Uganda, the appointment of military generals to head the police has suggested an informal fusion between the two institutions. For example, General Katumba Wamala served as Inspector General of Police (IGP) from 2001 to 2005 before returning to a position as Commander of Land Forces in the Ugandan People's Defense Force (UPDF). Another UPDF General, Kale Kayihura, was appointed to replace General Wamala as IGP in 2005 and served until March of 2018, giving him the longest tenure in the position's history.[19]

During this period the UPF has been accused of using increasingly militarized tactics. Additionally, several human rights organizations have reported extensive allegations of torture and police brutality.[20] The police have a particularly poor human rights record, even compared to other security institutions in Uganda. For example, between January and September of 2014, the African Center for Treatment and Rehabilitation of Torture Victims (ACTV) registered 224 allegations of torture against police but only 27 against local officials and crime preventers who provide local village security. Similarly, the police had nearly 3.5 times as many allegations as the UPDF's 65 reports.[21] The UPF's related lack of capacity and use of repression extends to conflict zones as well. Through 2006, the military was usually the main policing institution in conflict zones due to the chronic understaffing and limited resources of the Uganda Police Force. The UPDF routinely arrested civilians without proper investigation but then sometimes left them for the police to sort out later. Furthermore, beyond its own shortcomings with respect to human rights, the police often lacked the power to investigate and arrest soldiers accused of human rights violations in conflict zones and IDP camps.[22]

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[19] "Museveni fires police boss Kayihura, security minister Tumukunde." *The Observer*. March 4, 2018.

[20] Human Rights Watch. 2006. "World Report: Uganda."; Amnesty International. 2016. "Annual Report 2015/16".

[21] U.S. Department of State. 2014. "Uganda Report on Human Rights."

[22] Human Rights Watch. "Uprooted and Forgotten: Impunity and Human Rights Abuses in Northern Uganda." Sept. 20, 2005.

In addition to the torture of criminal suspects, the Ugandan police have also been involved in electoral and political repression. Before elections were allowed by the NRM, the police were central to the government's efforts to prevent them. Pressure from opposition political parties[23] to re-open the political system to multiparty competition was met with repression. Several political meetings and rallies were broken up by the police and local government officials in the northern and eastern regions of the country.[24] Thus, while the police largely were unable to police violence in the more remote constituencies outside of the capital, they were able to police public political actions.

Once multi-candidate and then multiparty elections were reintroduced in Uganda, key leaders of opposition parties were subject to monitoring and harassment by security forces in the lead up to elections. Kizza Besigye, the FDC's candidate for president in several elections beginning in 2001, has been arrested multiple times and police have been deployed at his home to block him from reaching planned political rallies. Post-election "preventive" arrests have also been used by the regime to reduce the ability of opposition leaders to coordinate protests of election results (Kalinaki 2014; Amnesty International 2016). The police have also been accused of involvement in government efforts to intimidate opposition supporters, breakup rallies and meetings, and ultimately reduce opposition support.[25] IGP Kayihura, along with other senior police officials, are now the subject of civil society investigations and lawsuits surrounding the alleged torture of FDC supporters during the last election campaign.[26]

To bolster the police's capacity during electoral periods, the NRM government has also turned towards the use of large numbers of volunteer "Crime Preventers". This controversial program appears to have grown out of existing community policing programs that date back to at least the early 1990s. Official government statements for the program claim that it is an effective tool for preventing crime and providing security during elections when the formal police and military require assistance. However, its orientation towards community policing appears to have changed after the appointment of General Kayihura as IGP in 2005.[27] By the 2011 elections, critics of

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[23] This pressure came mainly from the political parties that existed before the conflict of the 1980s, the Ugandan People's Congress (UPC) and Democratic Party (DP).

[24] U.S. Department of State. 1994. "Uganda Human Rights Practices, 1993."; Meetings and rallies were broken up by police in Nebbi, Arua, Pallisa, Mbale, and Lira.

[25] See European Union Election Observation Mission. "Uganda: Presidential and Parliamentary Elections." Feb. 23, 2006; Clottey, Peter. "Uganda Deploys Police Nationwide Ahead of Thursday Polls." Feb. 17, 2016.

[26] Taremwa, Johnson. "Police Brutality – Kayihura Faces Suspension." *The Observer*. August 5, 2016.

[27] See Bagala, Andrew. "Crime Preventers or Just Another Militia Group?" *The Monitor*. August 23, 2015; Also see Tapscott 2016 for a discussion of the shift before the 2011 elections and a study of this transformation in Gulu district.

the program argue that the "Crime Preventers" had become an unregulated and highly partisan force used for maximizing the NRM's vote share by intimidating and brutalizing opposition supporters and reducing their turnout.[28] Before the 2016 elections, Amnesty International, Human Rights Watch, Human Rights Network Uganda (HURINET-U), Chapter Four Uganda, and Foundation for Human Rights Initiative (FHRI) all called for the suspension of the program.[29] The program instead went on and Museveni and the NRM won another electoral victory while managing to prevent any significant electoral violence from breaking out. Finally, in early 2018 the government sought to formalize this force by registering all "crime preventers" with the army as a reserve force. Exact numbers for the force's size are unknown since it was previously informal, but estimates range from 1 to 11 million total "crime preventers" during the last election.[30] Even a conservative estimate of the force's size far outnumbers the total formal police personnel and makes the "crime preventers" a serious and important tool for the regime's electoral policing efforts in Uganda.

Police Infrastructure Construction Under the NRM

The political nature of policing in Uganda has also been reflected in the geographic logic for constructing new infrastructure. On the one hand, official Ugandan government documents suggest that new police stations have been built in areas according to their relative local need. In 2008, police officials reported that the construction of new police posts was an effective response to an increase in armed robberies by iron-bar (*mutayibwa*) gangs but they were not specific about where these posts were built.[31] The geographic prioritization of new construction is usually unstated in government documents, though there is often a broad agenda for responding to crime. There is, however, less of a clear government agenda for shoring up policing capacity in conflict zones. For instance, the annual reports of the Ugandan Police Force rarely mention any planned efforts to increase police infrastructure or capacity in the northern districts that experienced the highest levels of violence since 1986.

Decisions about infrastructure development are not made without opposition from other political parties and civilians. Political disputes have broken out over the use of land to build new police infrastructure. After the national elections of 2011, opposition MPs fought against a government land deal that would have provided new

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[28] Wambi, Michael. "Foreign Envoys Demand Answers on Police Crime Preventers." *Uganda Radio Network*. Feb. 12, 2011.

[29] Human Rights Watch. "Uganda: Suspend 'Crime Preventers'." Jan. 12, 2016.

[30] Mumbere, Daniel. "Uganda's army to register reserve force following Museveni's directive." *Africa News*. March 30, 2018.

[31] See pg. 10 of "Annual Crime Report" 2008. Uganda Police Force.

houses for approximately 8,000 police officers in an area near Kampala.[32] Despite claims by the state that expanded infrastructure will improve security and welfare, local opposition to new construction is not uncommon when it also entails a conflict over land use. Of course, this dispute in Kampala came on the heels of the post-election "walk to work" protests directed by political opposition leaders and members against soaring food and fuel prices in the country. The government's security forces, including the police, used deadly force against the protesters and at least nine people were killed—six in Kampala, two in Gulu, and one in Masaka.[33] Disputes over security and police "land-grabs" have extended to other regions of the country as well. Meinart and Kjær (2016) identify several examples of local politicians and civilians pushing back against police and military land expansions in northern and central Uganda.

Popular demand for more police infrastructure is likely tempered by the public's perception of the police as a corrupt and repressive organization. A variety of surveys consistently indicate that a large portion (ranging from 63 to 75%) of the Ugandan population perceives the police force as corrupt and rank it as the most corrupt institution in the country.[34] However, despite these significant problems, voters still make demands for new police infrastructure because they value increased security and feel that physically closer police stations and posts will provide them better access to report crimes.[35] However, qualitative evidence suggests that this is usually not the case for much of the country. Chronic understaffing and corruption made police posts largely ineffective and unpopular amongst local populations and by 2015 the Ugandan Police Force had decided to shift its strategic focus towards bolstering central police stations, constructing sub-county police stations, and redirecting police post personnel and resources into mobile units.[36]

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[32] Mugerwa, Yasiin. "Opposition Fights Police Land Give-Away." *The Monitor*. December 19, 2011.

[33] Gatsiounis, Ioannis. "Deadly Crackdown on Uganda's Walk-to-Work Protests." *Time.* April 23, 2011.; Human Rights Watch. "5 Years On: No Justice for Walk to Work Killings." April 21, 2016.

[34] For an overview of several studies see Kato, Joseph. "Police most corrupt institution – UBOS." *Daily Monitor*. June 22, 2016. Among the surveys, polls, and studies reviewed are the Uganda Bureau of Statistics' (UBOS) 2015 National Service Delivery Survey (75%), Afrobarometer 2015 (75%), Makerere University's Economic Policy Research Center 2012, and Transparency International's People and Corruption: Africa Survey 2015. The police were also ranked as the most corrupt institution in the 2008 report of the Uganda Inspector General of Government and the East Africa Bribery Index in 2011 (for the whole region).

[35] See discussion of survey conducted by Vision Group in Kato, Joshua & Moses Walubiri, "Voters speak out on security: We want to feel safe." *New Vision*. Nov. 1, 2015.

[36] Bagala, Andrew. "Force scraps police posts." *Daily Monitor*. March 19, 2015.

4. Data & Research Design

Dependent Variables

Given the low level of policing capacity when the NRM came into power, the geographic growth of its police infrastructure in the last two decades is a key part of understanding the central government's strategy in reconstructing the physical security apparatus of the state. The two main dependent variables in the quantitative analysis are therefore the construction of police posts and police stations. Police posts are officially the lowest level permanent (physical) policing structure in Uganda. They are permanent posts located in populated areas that generally are relatively lightly staffed and serve mostly as a structure for civilians to report crimes or information to the police. Police stations reside higher in the hierarchy and receive reports from police posts. They also have greater staff numbers and investigatory capacity, as well as greater capacity to detain suspects. For the purpose of the hypotheses, the key differentiation is that police posts require a smaller investment for the central government than police stations. H2 therefore focuses on police stations only while H3 focuses on police posts.

For data on police post and station construction I use data from the Justice Law and Order Sector (JLOS) in Uganda. In 2012, data on the location, staffing, and resources of police stations and police posts were collected by JLOS and Geo-Information Communication (GIC) Limited. The data include the date of construction for police stations and posts and I use this information to create a county level time-series data set on the construction of police posts and stations in the post-war period in Uganda. The empirical analysis in this chapter focuses on the geographic distribution of police infrastructure over time.

Measurement of Main Independent Variables

In order to measure the electoral incentives for the NRM regime I use two main measures. First, I use the vote share for the incumbent president in the previous election to test whether areas with less support for the incumbent are targeted for more policing (H1). I also use a measure of electoral competitiveness in the presidential election by employing the margin of victory for the county's leading presidential candidate in order to test whether swing constituencies are more likely than opposition or core supporter areas to receive police infrastructure.

To measure the prior level of violent conflict at the county level I use a running count of total conflict events for each year since 1997 when data from the Armed Conflict and Location Event Data (ACLED) begins. This measure represents a stock of a county's recent history of conflict rather than alternative variables that measure annual

changes in conflict events. I disaggregate the type of violence by constructing measures of violence by the types of actors involved. To test H2 and H3, I use the stock of violent events involving the state's military or police and a non-state rebel group. To test the civilian protection hypothesis (H4), I use the stock of violent events where a non-state group commits acts of violence against unarmed civilians.

Empirical Models & Control Variables

I examine changes in police infrastructure on an annual basis. Since the logic governing the construction of police stations is potentially different from that governing the construction of police posts, I perform separate analyses for each type of structure, as well as a pooled analysis. To estimate the relationship between the main variables of interest and annual construction of police infrastructure I use logistic regression models. Since the vast majority of Ugandan counties have at most 1 police station or post constructed per year, I use a binary dependent variable which codes as 1 any county where construction occurs in the calendar year.

Since the main independent variables of interest, incumbent vote share and violence, do not occur randomly across time and space, it is possible that they are correlated with other confounding variables that explain the outcome as well. While the use of a natural experiment or instrumental variable is preferable for estimating the causal effect of the independent variables, they are difficult to find in this context. I therefore rely on the "selection on observables" assumption in which selection of counties into levels of political support or violence is fully accounted for by the observable control variables that I include in the regressions. Failure of this assumption leaves the estimates open to omitted variable bias. This is a strong assumption for interpreting the results here as causal effects since many potential factors are unobserved or unmeasurable and I therefore interpret the results as suggestive of a pattern that is also supported by qualitative evidence.

Despite this caveat, there are several factors that are clearly important to control for when considering the regression models. Since presidential elections did not begin until 1996 and data for violent events is not available for Uganda until 1997, I include a baseline measure of county level police infrastructure as of 1997. In addition to acting as a baseline control, this variable also provides a way of testing whether infrastructure construction is being targeted to areas that have lower levels to begin with, consistent with the government's claim that areas with need for police infrastructure are being prioritized. I also control for the county's level of development by including the mean level of luminosity as measured by satellite imagery, a common proxy for local development. To account for the common difficulty for central governments in projecting power across further distances, I include the distance between the centroid of a county and Kampala, the capital city of Uganda. As a second measure of state coercive

capacity, I include the number of military bases located in each county. I also include the population density of each county as measured by the 1991 and 2002 census since more populated areas potentially need a larger amount of infrastructure.

I also include a measure of the electoral cycle to account for the timing of elections. It is possible that the construction of new infrastructure is more likely to occur closer to the election as it may amplify the incumbent's goal of impacting electoral results. However, because police posts and stations are physical infrastructure that are less amenable to political manipulation after the election (they are unlikely to be torn down completely for instance), I argue that we are less likely to find an electoral cycle to their provision in comparison to goods like electricity. Next, politics in Uganda are often discussed both academically and popularly as deeply divided by ethnicity and region. Political support is often tied to ethnicity which tends to be geographically concentrated as well. I therefore control for the share of the county that matches President Museveni's ethnic identity, Banyankole. Furthermore, I also use dummy variables to control for the region that the county is located in. Finally, since the capacity of the state is arguably growing over time as it consolidates power and reestablishes its resource base and institutions after war, I include a time trend.

5. Correlates of Police Infrastructure Construction

The first set of empirical results concern the construction of police posts and are presented in Table 1. First, all models show a strong, significant relationship between the county's vote share for Museveni in the last presidential election and the likelihood that a police post is constructed. The direction of the relationship is negative, supporting the repression hypothesis (H1) which expected that constituencies with lower levels of political support for the incumbent would be the areas of more police post investment in an effort to monitor electoral threats. Alternative hypotheses concerning rebel monitoring (H3) and civilian protection (H4) also find support in the data. Both the past number of conflict events between state security forces and rebels and the number of violent events between non-state groups and unarmed civilians are significantly and positively associated with the likelihood that a police post is constructed in a given year. These results suggest that when it comes to the construction of police posts, there is not a strong tradeoff for the incumbent between allocating police resources to constituencies of strong electoral or violent opposition.

Since the logistic regression coefficients are not easily interpreted or compared across different independent variables, figures 1-3 graph the predicted probabilities of a police post being constructed in a given year relative to the continuous values of the explanatory variables. As a comparison, a one standard deviation increase in

Table 1: Police Post Construction (Logistic Regressions)

	(1)	(2)	(3)	(4)
Museveni Vote Share	-1.260	-1.371	-1.299	-1.350
	(4.12)***	(3.69)***	(4.36)***	(3.68)***
Years to Election	0.059	0.060	0.058	0.059
	(1.47)	(1.46)	(1.46)	(1.44)
Mean Luminosity	0.099	0.071	0.092	0.067
	(2.06)**	(1.47)	(1.87)*	(1.36)
Distance to Kampala	-0.001	0.001	-0.001	0.001
	(0.95)	(0.72)	(0.73)	(0.74)
Population Density	-0.001	-0.000	-0.001	-0.000
	(2.45)**	(2.16)**	(2.00)**	(1.82)*
Banyankole	1.007	1.000	0.928	0.963
	(2.88)***	(2.59)***	(2.67)***	(2.50)**
Baseline Infrastructure	0.305	0.247	0.307	0.248
	(6.36)***	(4.60)***	(6.32)***	(4.56)***
Time Trend	0.121	0.123	0.124	0.127
	(8.99)***	(8.96)***	(9.38)***	(9.43)***
Non-state – Civilian Violence	0.012	0.011		
	(2.33)**	(2.13)**		
Military – Rebel Violence			0.006	0.005
			(1.89)*	(1.87)*
N	2,567	2,567	2,567	2,567
Region Dummies	No	Yes	No	Yes

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Note: Results presented as regression coefficients with z-scores included in parentheses.

Museveni's vote share (approximately 25% points) is associated with a 3 to 4% decrease in the likelihood that a police post is constructed. Meanwhile a one standard deviation increase in the number of conflict events between state security and rebel groups (approximately 13 events) is associated with a 7 to 8% increase in the probability that a post is constructed. The magnitude of the relationship between non-state actor violence against civilians and police post construction is similar. It is difficult to distinguish the effect across the two types of violence because they are strongly positively correlated across Ugandan counties. However, qualitatively, police posts in Uganda appear to offer little protection for civilians against rebels, terrorist, or criminal attacks due to their lower capacity and irregular access to staff and resources.

Overall, this result perhaps highlights the dual nature and function of policing in a post-conflict setting, as well as the relatively lower level of investment needed for this type of infrastructure. For a resource constrained weak state, the investment in low level policing infrastructure may serve as a cost-effective way to monitor electoral opposition, as well as an attempt to gather information on violent non-state groups in other areas. While the level of staffing and resources at an average police post in Uganda is lacking such that it is unlikely to serve as a great deterrent to well-established rebels, militias, or criminal groups, it may help to prevent the creation of new groups in areas with a history of violence by providing better information for the incumbent regime and other branches of the security apparatus. Furthermore, when effective, police posts might have developed important ties to local civilians in an effort to develop intelligence networks in areas of violent opposition.

The next set of empirical analyses explores the relationship between these same independent variables and the probability that a police *station* is constructed in a given county-year. Results are presented in Table 2. Unlike in the police posts case, there is a clear divergence between the variables for electoral and violent opposition. The relationship between support for Museveni and police station construction is consistently estimated in the expected negative direction. While models 5 and 7 show the relationship to be strongly significant, the introduction of regional dummy variables in models 6 and 8 leads to an estimate that falls outside the 90% confidence interval. Meanwhile both the variables for violent conflict events are not significantly related to the outcome in any model and the direction of the sign is opposite of the hypothesized direction. Therefore, there is little evidence in the data to support the counterinsurgency hypothesis (H2).

Table 2: Police Station Construction (Logistic Regressions)

	(5)	(6)	(7)	(8)
Museveni Vote Share	-1.067	-0.851	-0.978	-0.786
	(1.85)*	(1.21)	(1.67)*	(1.06)
Years to Election	0.052	0.050	0.052	0.050
	(0.62)	(0.58)	(0.62)	(0.58)
Mean Luminosity	0.018	-0.001	0.018	-0.002
	(0.24)	(0.02)	(0.23)	(0.03)
Distance to Kampala	0.001	0.001	0.000	0.000
	(0.36)	(0.25)	(0.15)	(0.16)
Population Density	-0.000	-0.000	-0.000	-0.000
	(0.58)	(0.56)	(0.60)	(0.56)
Banyankole Share	0.019	0.136	0.063	0.168
	(0.04)	(0.25)	(0.14)	(0.32)
Baseline Infrastructure	0.249	0.207	0.244	0.203
	(4.86)***	(3.56)***	(4.73)***	(3.47)***
Time Trend	0.149	0.150	0.146	0.147
	(5.04)***	(5.04)***	(4.98)***	(5.00)***
Non-state – Civilian Violence	-0.006	-0.007		
	(0.74)	(0.93)		
Military – Rebel Violence			-0.001	-0.001
			(0.17)	(0.26)
N	2,567	2,567	2,567	2,567
Region Dummies	No	Yes	No	Yes

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

The final set of analyses in Table 3 pools the construction of police posts and police stations into one dependent variable. The results here are reflective of the previous results. The vote share for Museveni is robustly significant and negative across all models while the variables for violent events, while both positive, do not approach standard benchmarks for statistical significance. The results for Museveni's vote share also hold when a county-level measure of electoral competitiveness is introduced to test whether "swing" constituencies are disproportionately targeted for construction. The results of this analysis are presented in Table 4 (in the appendix) and are consistent with theoretical expectations that swing constituencies will not necessarily be targeted for increased police presence.

Table 3: Police Station & Posts Construction (pooled)

	(9)	(10)	(11)	(12)
Museveni Vote Share	-1.265	-1.299	-1.294	-1.287
	(3.78)***	(3.03)***	(3.93)***	(2.99)***
Years to Election	0.055	0.055	0.055	0.055
	(1.40)	(1.38)	(1.39)	(1.37)
Mean Luminosity	0.090	0.066	0.086	0.064
	(1.93)*	(1.43)	(1.84)*	(1.39)
Distance to Kampala	-0.001	0.001	-0.001	0.002
	(0.70)	(0.83)	(0.53)	(0.84)
Population Density	-0.001	-0.000	-0.000	-0.000
	(2.28)**	(2.19)**	(2.09)**	(2.05)**
Banyankole Share	0.819	0.865	0.765	0.840
	(2.43)**	(2.37)**	(2.26)**	(2.30)**
Baseline Infrastructure	0.302	0.246	0.303	0.247
	(6.38)***	(4.62)***	(6.37)***	(4.60)***
Time Trend	0.123	0.126	0.125	0.128
	(9.47)***	(9.37)***	(9.93)***	(9.95)***
Non-state – Civilian Violence	0.009	0.007		
	(1.80)*	(1.60)		
Military – Rebel Violence			0.004	0.003
			(1.44)	(1.38)
N	2,567	2,567	2,567	2,567
Region Dummies	No	Yes	No	Yes

*p<0.1; ** p<0.05; *** p<0.01*

Note: Results presented as regression coefficients. Z-scores included in parentheses.

Overall, these results provide stronger evidence in favor of the repression hypothesis than the counterinsurgency or civilian protection hypotheses. The construction of police stations in particular appears to be targeted towards counties consistent with a strategy of short-term repression for electoral purposes.

A final result of interest here is the consistently large and positive association between the baseline measure of police infrastructure and the construction of new infrastructure. Figure 5 plots the result for the pooled analysis in Table 3 (model 11) to show the predicted probability of new construction conditional on the number of baseline total police infrastructure in the county-year. The pattern is striking and suggests that local need for increased policing is not a key factor driving the construction of new infrastructure, particularly because this pattern holds when

controlling for population density and local development levels (average night light levels). On the whole, the quantitative evidence is supportive of the qualitative evidence gathered from opposition party statements and secondary sources: policing in Uganda is deployed by the NRM regime largely on the basis of electoral logic and not for reconstruction, state-building, or local need.

Effects of Police Infrastructure on Voting Patterns

I close this chapter with an analysis of the effect of police infrastructure construction on the change in electoral support for Museveni between elections. As in chapter 2, the dependent variable for this analysis is the change in vote share in county i from the election j-1 to election j:

$$change\_vote\_share_{i,j} = share_{i,j} - share_{i,j-1}$$

Similarly, I create variables for the number of new police stations and posts built between elections. Police stations were built in about 11% of county-waves and police posts were built in 35%. The average number of police stations built in a county-wave is 0.12 with a maximum of 3, while police posts have an average of 0.78 per county wave with a maximum of 15.

I use OLS to regress the change in vote share on the number of new police stations and posts along with a battery of control variables. The results are shown in Table 5 below. Model V1 is an OLS regression with a linear time trend for the electoral wave. Model V2 introduces county level fixed effects and V3 substitutes electoral wave fixed effects for the linear time trend. Across all three models, the number of police stations and police posts constructed are positively related to the change in Museveni's vote share. The estimates are consistently statistically significant and substantively large as well. An increase of one police station built is associated with an increase of around 5 to 6 percentage points for Museveni in the next election. For every police post built there is an associated 1 percentage point increase in Museveni's vote share.[37] This analysis strongly supports the qualitative evidence in Uganda for the hypothesis of electorally-driven policing.

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[37] To make sure that these results are not driven by extreme values for police posts or police stations, I collapse the count variable into a dummy and rerun the same models.

Table 5: Police Infrastructure and Support for Museveni

	(V1)	{V2)	(V3)
Police Station Construction	0.043	0.062	0.049
	(2.63)***	(3.03)***	(2.58)**
Police Post Construction	0.010	0.015	0.010
	(3.36)***	(2.84)***	(2.44)**
R^2	0.47	0.58	0.68
N	445	445	445
Region Dummies	Yes	Yes	Yes
County Fixed Effects	No	Yes	Yes
Electoral Wave Fixed Effects	No	No	Yes

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

6. Conclusion

Existing research in the social sciences on policing has provided a strong theoretical and empirical understanding of a range of related issues such as the importance of post-conflict security sector reform (Ebo 2005, Kabia 2012), the role of non-state actors (Baker 2005), post-conflict policing legitimacy (Blair et al 2016) and transitions to community policing models (Baker 2007, Musiime 2012). However, we know less about how post-conflict leaders allocate police resources to differing degrees across subnational units and what implications these distributive patterns have on national development, peace, and stability. This chapter explores this important issue and helps to contribute to our understanding by providing a theoretical argument for the incentives facing post-conflict rulers in this allocation decision and empirical results that provide a systematic picture of the allocation pattern at the subnational level in an important case.

Overall, the empirical findings suggest several important ideas about policing in post-conflict Uganda and perhaps post-conflict countries elsewhere. First, holding the level of violence (amongst other factors) constant, it appears that political opposition areas are more likely to see an increase in police infrastructure than swing or core supporter areas. While it is possible that increased infrastructure in electoral opposition strongholds could be used to improve public order and strengthen the quality of policing in the area, qualitative evidence from around the country suggests that this is usually not the case. Secondly, it appears that as the size of the infrastructure investment increases from small police post to larger police station, political opposition areas have been more likely to receive infrastructure than areas of violent opposition. While violent events between the state and rebel groups and non-state groups and civilians are significant predictors of police post construction they are *not* significant

predictors of a larger investment in police station construction. This finding has interesting implications for the future of Ugandan policing as the country moves away from the police post infrastructure altogether and aims to build more robust police stations at a sub-county level. This undertaking will likely require a greater commitment of resources to those sub-counties chosen for new construction and without a related increase in the overall budget devoted to police infrastructure creation, it is possible that the strong incentive to devote resources to areas where they are most politically effective will become even more important.

Appendix 2: Figures and Additional Tables

Table 4: Swing Counties and Police Infrastructure (pooled)

	(13)	(14)	(15)	(16)
Museveni Vote Share	-0.636	-0.694	-0.663	-0.698
	(3.61)***	(3.16)***	(3.93)***	(3.26)***
Margin of Victory (winner)	-0.040	0.165	0.038	0.225
	(0.10)	(0.42)	(0.10)	(0.59)
Years to Election	0.057	0.060	0.057	0.061
	(1.44)	(1.51)	(1.46)	(1.52)
Mean Luminosity	0.091	0.069	0.088	0.067
	(1.96)**	(1.50)	(1.88)*	(1.47)
Distance to Kampala	-0.001	0.001	-0.001	0.002
	(0.67)	(0.85)	(0.50)	(0.86)
Population Density	-0.001	-0.000	-0.000	-0.000
	(2.26)**	(2.18)**	(2.07)**	(2.07)**
Banyankole Share	0.809	0.833	0.737	0.799
	(2.42)**	(2.27)**	(2.21)**	(2.19)**
Baseline Infrastructure	0.303	0.244	0.303	0.245
	(6.28)***	(4.53)***	(6.23)***	(4.50)***
Time Trend	0.123	0.130	0.127	0.134
	(8.33)***	(8.57)***	(9.03)***	(9.40)***
Non-state – Civilian Violence	0.009	0.007		
	(1.93)*	(1.56)		
Military – Rebel Violence			0.004	0.003
			(1.54)	(1.40)
N	2,567	2,567	2,567	2,567
Region Dummies	No	Yes	No	Yes

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Figure 1: Predicted Probabilities of Police Post & Vote Share

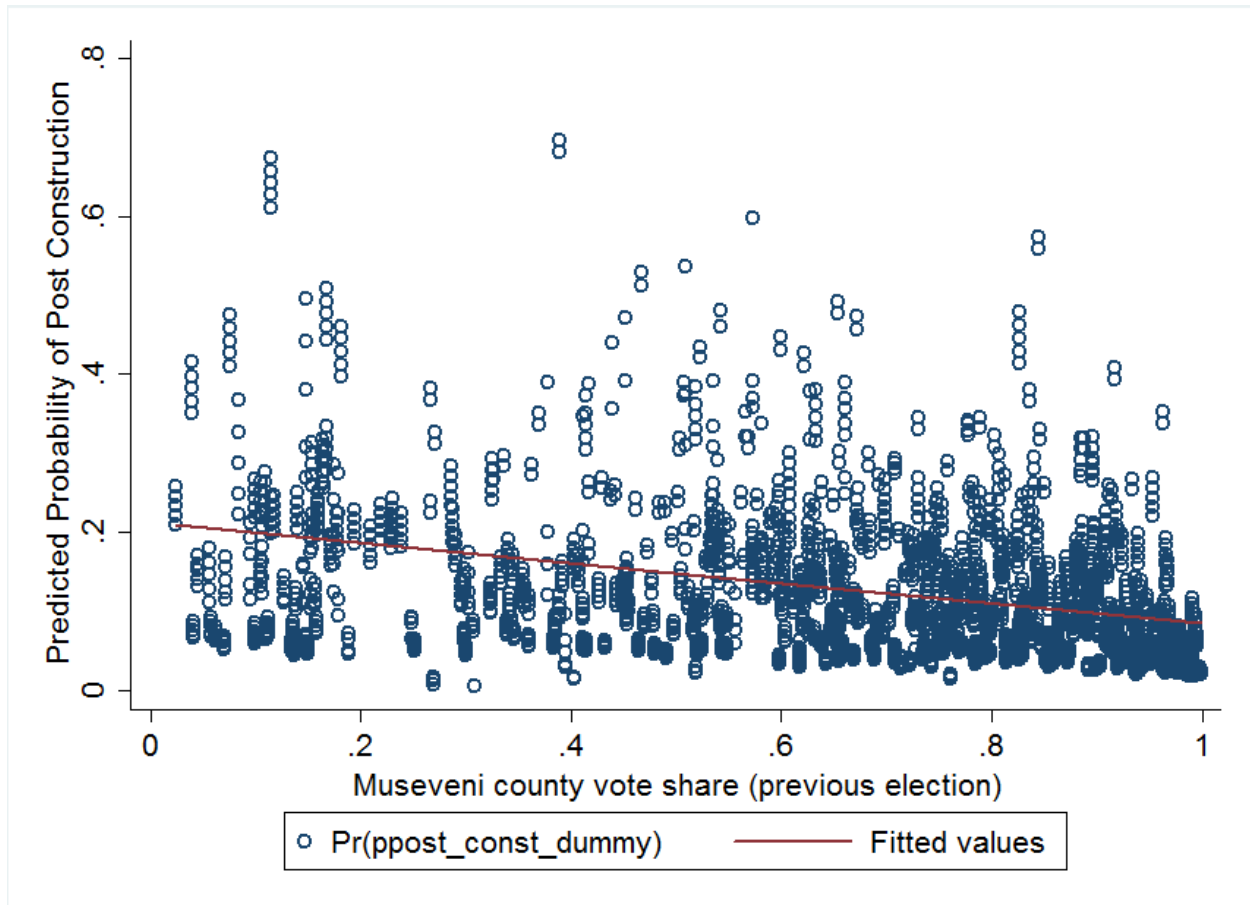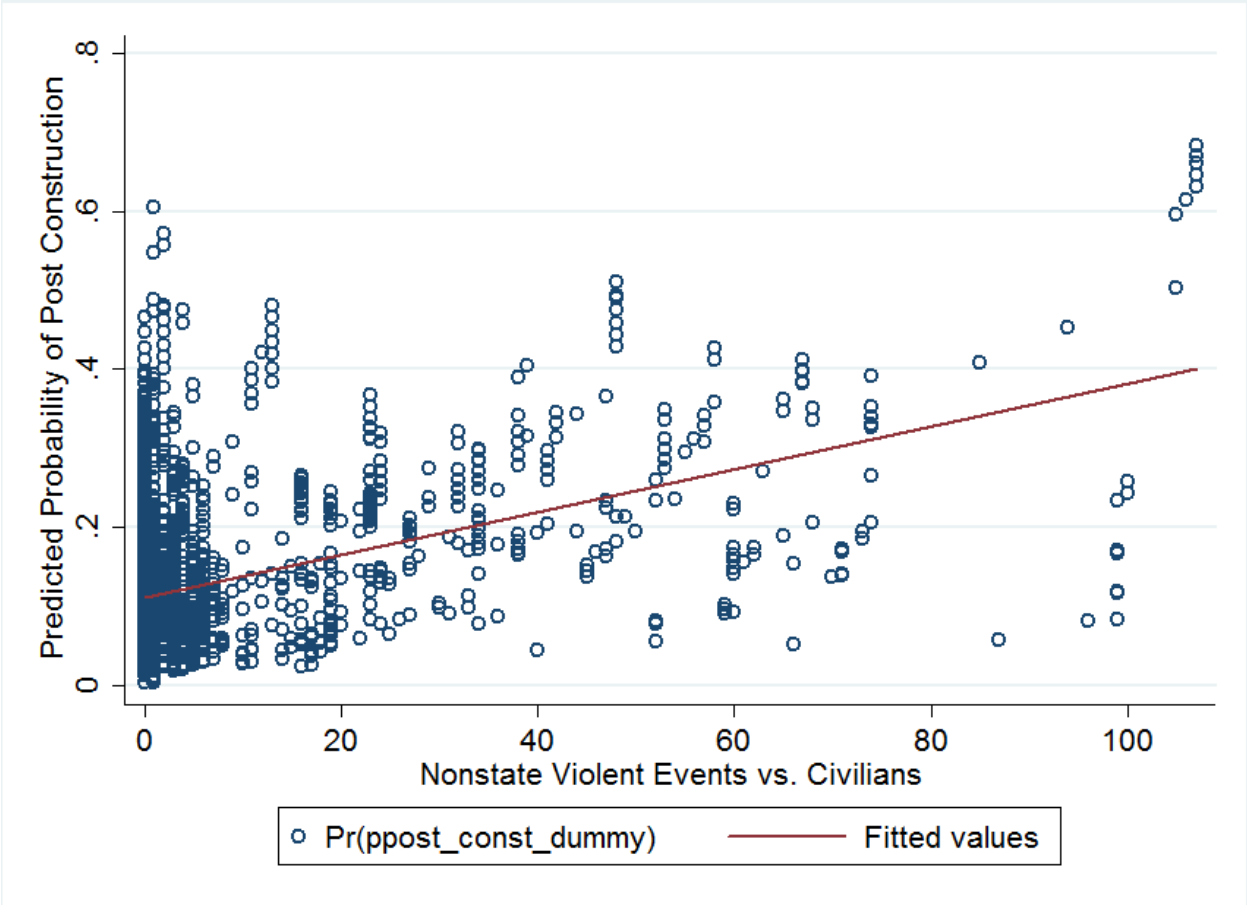# Figure 2: Police Post Construction & Non-state Violence vs. Civilians

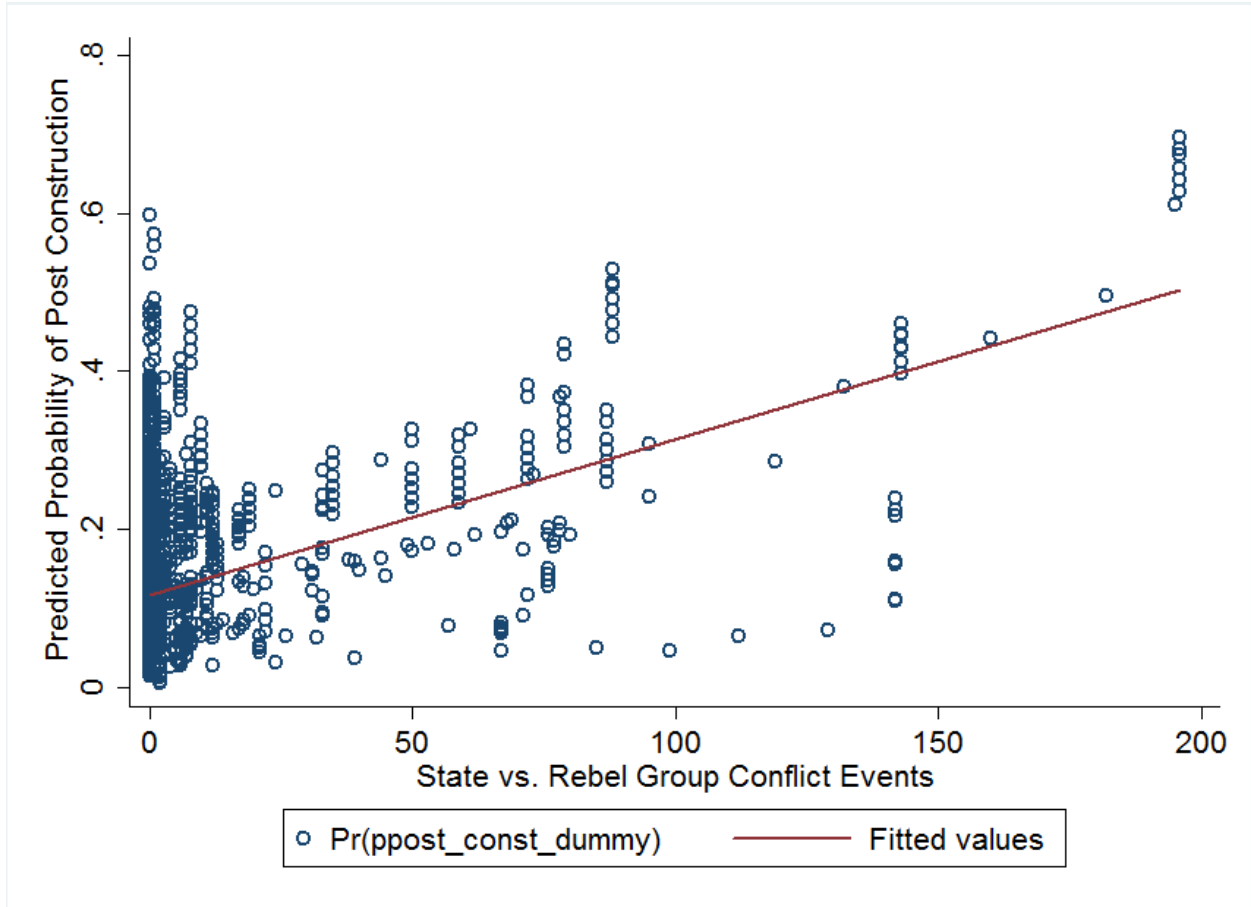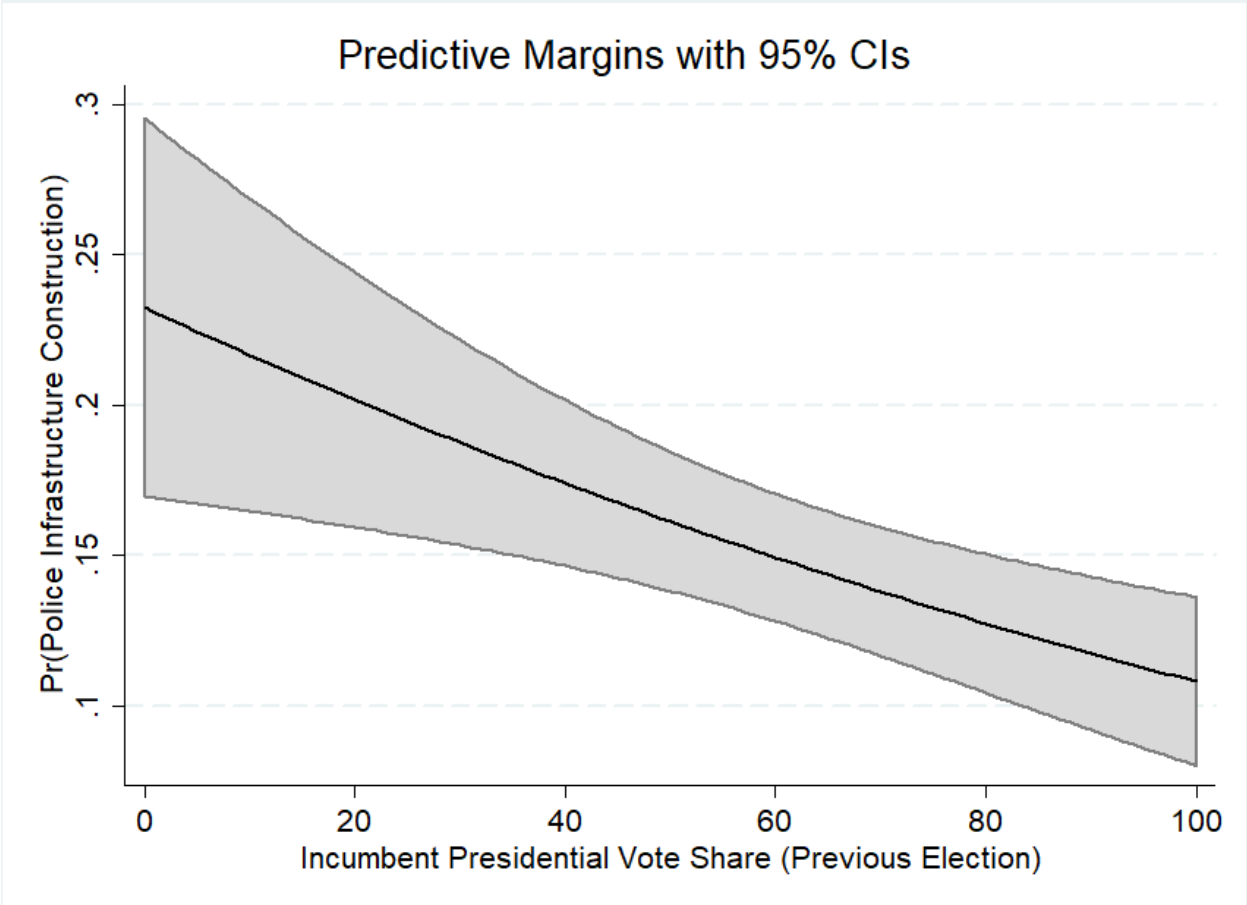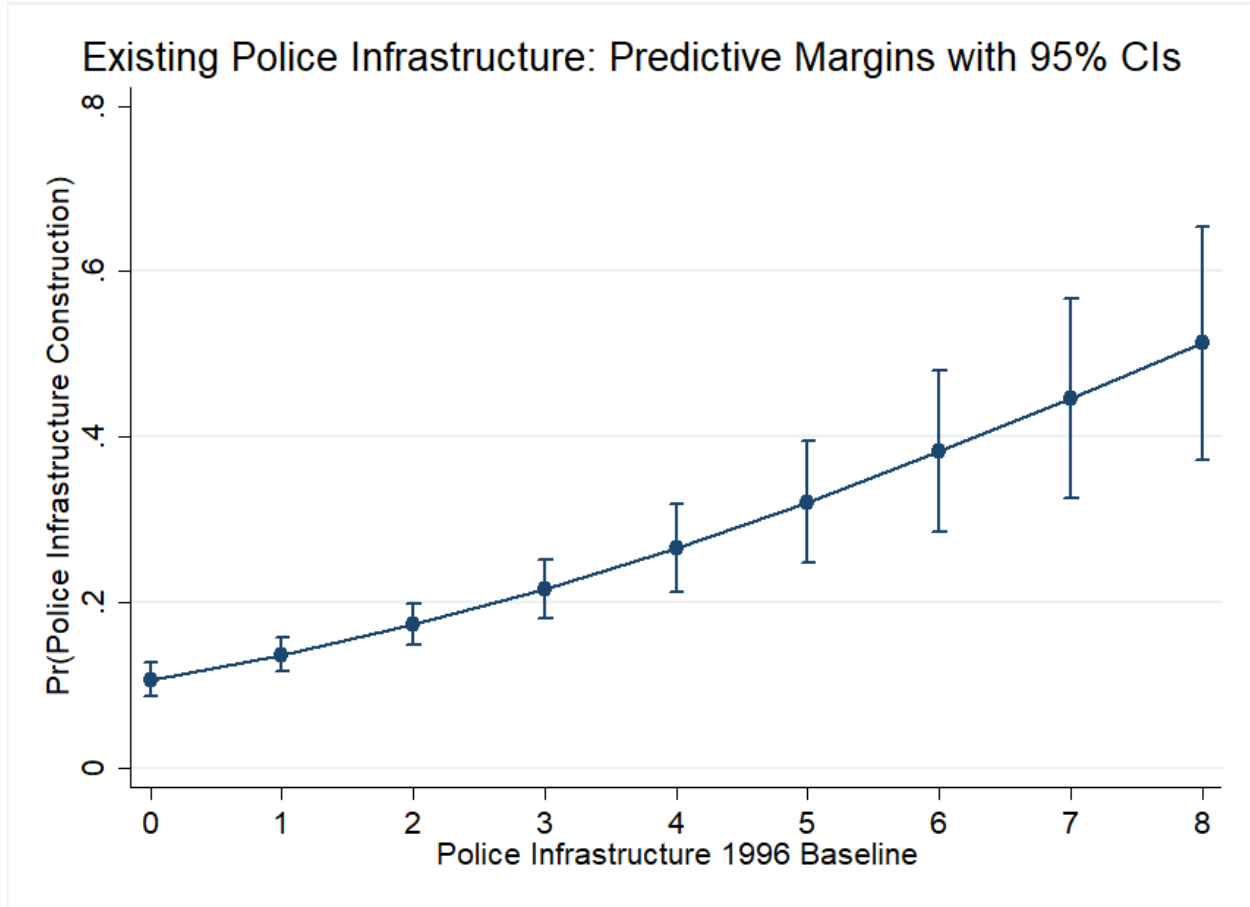**Figure 3: Police Post Construction & State – Rebel Conflicts**

Figure 4: Incumbent Vote Share & Police Infrastructure Construction

Predictive Margins with 95% CIs

Figure 5: Baseline Infrastructure & New Infrastructure Construction

Existing Police Infrastructure: Predictive Margins with 95% CIs

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Chapter 4

Foreign Aid and Reconstruction in Museveni's Uganda

Foreign aid often accounts for a large portion of government budgets in poor, post-conflict countries and therefore represents a significant resource for political actors to attempt to use for their strategic goals. When implemented effectively, foreign aid can bolster economic development, state reconstruction, and the delivery of goods and services to populations that most need them after war (e.g. Girod 2012, 2015). This kind of effective reconstruction is critical for avoiding the outbreak of renewed violence. Alternatively, a growing body of evidence suggests that foreign aid is often misused and directed by governments not towards constituencies based on need but rather primarily according to their electoral payoff for the incumbent (e.g. Jablonski 2014). For many weak post-conflict governments, the allocation of aid is important for consolidating control on both dimensions. How do post-conflict rulers strategically influence the subnational allocation of aid? This question has been relatively understudied at the subnational level but has important consequences for aid policy and reconstruction, as well as the persistence of violence and political control.

In this chapter, I provide theory and evidence for how post-conflict governments influence the distribution of aid across their countries. I argue that in contrast to straightforward political models of aid in other developing countries, the role of aid in post-conflict settings is complicated by the nature of aid allocated by donors for reconstruction related functions. Post-conflict aid projects often are less fungible with respect to both geography and function than aid projects in non-conflict settings. In many countries and conflicts, fighting is concentrated in geographic areas and post-conflict aid programs may be designed with geographic constraints in order to target the communities most affected by conflict. If corruption is limited and projects are implemented successfully, this kind of aid program can prevent central governments from redirecting aid towards other areas of the country for political reasons.

The empirical analysis reveals a strong and persistent targeting of foreign aid to constituencies with a history of violence. This finding stands in contrast to the analysis of electricity and policing in earlier chapters. Both aid commitments and disbursements increase as a county's past stock of conflict events and fatalities increase. However, electoral politics do appear to play a role, though not to the extent of other state resources. While aid commitments are disproportionately targeted to opposition constituencies, aid disbursements are disproportionately larger in core constituencies. These findings make a contribution to understanding the aid allocation process in Uganda, as well as the strategic politics of aid in post-conflict settings more broadly.

This chapter proceeds as follows. First, I extend the logic of the "victor's dilemma" to the dynamics of post-conflict aid allocation. Second, I discuss the nature of aid allocation in Uganda since 1986. Next, I describe the data and the construction of a panel dataset on foreign aid commitments and disbursements in Uganda. I then discuss the quantitative research design and its results. I conclude with a discussion of how these results relate to those of previous chapters.

2. Theory

The Political Economy of Aid Allocation

Foreign aid appears to be an important factor both in shaping governance and preventing conflict. However, there has long been scholarly and policy debates about precisely how aid affects a complex and interdependent set of outcomes—governance, development, and violence. Some scholars argue that aid can lead to dependence, weaker economic performance, and rent-seeking, corrupt governance (e.g. Svensson 2000; Knack 2001, 2004; Moyo 2009). Aligned with these findings are studies showing that incumbent governments are able to exploit aid funding to increase their popular support and odds of remaining in power (Bueno de Mesquita & Smith 2009; Kono & Montinola 2009; Ahmed 2010; Licht 2010; Faye & Niehaus 2012). Empirical work has demonstrated that increasing aid projects in post-war settings can lead to a rise in violence rather than a reduction (Crost et al 2014; Sexton 2016). Other scholars have a more optimistic view of aid's potential effectiveness and argue that under the proper circumstances it can be an effective way to lift individuals out of poverty, support resource poor governments, and rebuild societies after civil conflict (e.g. Girod 2012, 2015; Ndikumana & Pickbourn 2017).

Despite disagreement about the effects of aid, a growing body of research has accumulated showing that the allocation and implementation of aid projects is a process deeply intertwined with both international and domestic politics. Recent work has turned towards examining a key political question in understanding the effectiveness of aid: how do governments allocate aid projects across subnational units? A number of studies have used geo-located data on aid projects in Sub-Saharan Africa to quantify the role that factors such as local support for the incumbent, ethnic demography, and violence play in shaping geographic patterns of aid commitments.

Providing support for a political model of aid allocation, Jablonski (2014) finds that incumbents target their core supporter and co-ethnic constituencies with greater amounts of aid per capita in Kenya. Alternatively, Masaki (2018) shows that a greater number of donor projects are allocated to opposition areas in Zambia, arguing that this is a preferred allocation strategy for incumbents who have limited information about

targeting swing voters. Going beyond a single country study but still focusing on allocation to subnational units, Dreher et al (2016) show that Chinese funded projects exhibit an allocation bias towards a leader's birth region and his co-ethnics but find little evidence that World Bank projects do the same.[38] Shifting from electoral politics to the role of violence, Bezerra and Braithwaite (2016) find that areas experiencing transnational terrorist attacks and civil conflict receive greater bilateral aid commitments than areas that do not. However, extreme levels of violence tend to deter donors and they subsequently commit lower levels of aid to these areas.

The Victor's Dilemma in the Context of Foreign Aid

The political model of aid allocation suggested by existing research argues that incumbents will use their power to influence the location of projects to maximize their electoral interests. Exporting this political model to post-conflict settings would lead to theoretical predictions closely aligned with my discussion of the victor's dilemma in the allocation of public goods and security infrastructure. Specifically, short-term electoral interests should outweigh long-term reconstruction strategies leading incumbents to allocate aid projects primarily along electoral dimensions. However, I argue that in a post-conflict country key differences in the allocation process for foreign aid can preclude this kind of direct relationship between electoral politics and aid. There are at least three important factors to consider:

1) the role of external actors in allocating aid
2) geographic and functional constraints on reconstruction aid
3) the ability of politicians to claim political credit for foreign aid projects

The funding and allocation of foreign aid necessarily links a domestic government with external partners who have their own preferences and goals about the aid process. While there is debate about when and how donors and international organizations are both willing and able to constrain domestic governments (e.g. Stone 2004), existing research does indeed indicate that under certain conditions donors can credibly constrain the behavior of recipient governments (Dunning 2004, Bearce & Tirone 2010). Furthermore, recipient governments are willing to comply with donor conditions when the costs of non-compliance outweigh the benefits. Girod (2012, 2015) in particular, studies these dynamics in the context of post-conflict countries and finds that aid can improve post-conflict development and reconstruction when recipients do not have alternative sources of funding to rely on, such as natural resource wealth, and therefore are more willing to follow aid conditions and attempt to meet donors' non-strategic development goals.

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[38] Interestingly, the authors also find that Chinese funded projects have a greater impact on regional economic growth than World Bank projects.

In the context of the post-conflict victor's dilemma this is an important issue for subnational allocation strategies not necessarily because it allows donors to dictate the geographic location of aid projects, but because instead it incentivizes recipient governments to engage in less political manipulation and corruption that could potentially derail future funding that they desperately rely on. Secondly, donors may also hold their own specific goals with respect to the reconstruction of post-conflict countries and prefer to focus their funding efforts on projects with a close relationship to conflict processes. These kinds of programs include refugee and IDP resettlement, disarmament and demobilization of ex-combatants, local conflict management and reconciliation. When post-conflict rulers have alternative income, like valuable natural resources, this constraint is relaxed and these victors should be more likely to use the aid they receive for electoral, patronage purposes.

However, following the logic of Girod (2012, 2015), when recipient governments do not have alternative income sources they will be more likely to attempt to avoid political manipulation and corruption and meet donors' development and reconstruction goals. They will therefore be more willing to dependably implement projects that have geographic and sectoral constraints. While post-conflict recovery and reconstruction projects can take a wide variety of forms, many of them do have geographic or sectoral constraints.

Geographic constraints are those that stem from the formal, precise targeting of a program and result in its implementation in some subnational units but not in others. Examples of these types of constraints are reconstruction projects that are by design only implemented in subnational constituencies that experienced high levels of violence during wartime. Similarly, sectoral constraints limit the use of aid funding to projects in a particular sector or domain (e.g. health, education, water, electricity, etc.). In the context of post-conflict funding, programs that are devoted to addressing conflict processes are more likely to be also geographically constrained to areas where refugees or IDPs are resettling, ex-combatants are demobilizing, or damaged infrastructure must be rebuilt.

When central governments have incentives to adhere to program conditions, these kinds of geographic and sectoral constraints should lead to patterns of aid allocation that overlap more closely with patterns of violence than with electoral politics. In a broader context, more precisely targeted projects have been shown to be less vulnerable to political capture due to improvements in accountability mechanisms. More precisely targeted projects often benefit from greater clarity of responsibility between implementing agencies, lower monitoring costs, and better coordination (Winters 2014). These mechanisms create greater opportunity for citizens and donors to sanction governments that do not comply with program conditions and goals.

Finally, in order for politicians to have an incentive to manipulate the location of aid projects for electoral purposes they must be able to credibly claim credit with local

voters. While some existing research does suggest that politicians are able to claim credit for aid projects, even when objectively undeserved (Cruz & Schneider 2017), this may vary by national or local context. Some governments, particularly those viewed as corrupt or clientelistic by large numbers of voters, have difficulty in claiming credit even for projects that they do have control over (Milner et al 2016). When central government politicians cannot claim credit for diverting aid projects to a locality, their expected utility from this diversion is likely lower than it might be from effectively implementing the project in post-conflict zones.

Hypotheses

The theory lends itself to several testable hypotheses about the subnational allocation of foreign aid. When recipient governments are relatively unconstrained by international donors and domestic institutions they are more likely to pursue electoral strategies of aid allocation. Models of distributive politics primarily focus on how incumbents will target core (e.g. Cox & McCubbins 1986; Murillo & Calvo 2004) or swing constituencies (Lindbeck & Weibull 1987; Stokes 2005) with resources in order to mobilize and persuade voters.

> **H1 – Swing counties**: Counties with lower margins of victory for the county winner will receive greater allocations of aid.

> **H2 – Core support counties**: Counties with higher electoral support for the incumbent will receive greater allocations of aid.

When recipient governments are more constrained by international donors, they will be less likely to pursue electoral strategies of allocation. Instead, they will be more willing to adhere to program conditions and allocate greater aid to areas and projects with post-conflict reconstruction needs.

> **H3 – Reconstruction:** Counties with higher historic stocks of conflict will receive greater allocations of aid.

However, even when incumbents commit to reconstructing a historically violent area, they may be deterred from aid allocation if severe local violence has occurred recently. Without a secure environment, aid projects are more difficult to implement and less likely to be effective (Berman et al 2013; Sexton 2016). I therefore also test a hypothesis concerning whether recent insecurity, as measured by the lagged and current "flows" of violence, affects the level of aid allocated to a locality.

> **H4 – Insecurity:** Counties with higher flows of recent conflict will receive lower allocations of aid.

The theory also makes claims about the precision of targeting and the expected strategic allocation of aid. As Winters (2014) argues, more precise targeting can help both international and domestic stakeholders to punish governments that fail to effectively implement aid projects. In the context of the theory I propose, more precise targeting should equate to less electorally driven patterns of aid allocation and a greater focus on areas of "need" in the post-conflict context (i.e. constituencies with histories of violence).

> **H5 – Project Precision:** When projects are more precisely geographically targeted, aid allocation will be higher in counties with more conflict and unrelated to incumbent vote share.

3. Foreign Aid and Reconstruction in Uganda

Upon coming to power in 1986, Yoweri Museveni and the National Resistance Army were desperate for income to rebuild the country's economy, infrastructure, and basic functions of government that had been destroyed during years of dictatorship and civil war. During the reign of Idi Amin and the subsequent civil war (1981-1986), GDP per capita fell significantly. By 1987, it stood at only 60 percent of its 1971 level when Amin had first come to power (Warnock & Conway 1999).

Despite holding socialist views, Museveni quickly adopted a conciliatory approach towards working with international financial institutions and foreign donors to revive Uganda's economy. International lending and macroeconomic reform were critical parts of stabilizing the economy and providing resources for the NRM to begin reconstituting state authority and services. The government's dependence on official development assistance and foreign aid was quite severe in the early years after the war. By 1992, ODA accounted for over one quarter of Uganda's gross national income.

Despite facing ongoing armed challenges from an array of former military, police, and rebel groups, since the early 1990's the NRM government has been able to preside over steady economic growth and a greater semblance of political stability. While foreign aid funding has increased over time, the country has simultaneously become relatively less dependent on it. Economic growth, oil discoveries, and Uganda's role as a strategic U.S. ally in counter-terrorism and counter-insurgency operations in East Africa, contributed to the relative decline in the NRM regime's dependence on donor funding (Girod 2015).

Reconstruction Aid

While early international support for reconstruction in the 1980s and 90s was aimed at national budget support and macroeconomic reforms, later efforts took the

form of projects targeted at subnational units with geographic constraints. Though the government had been successful in maintaining national control, several rebel groups continued to operate in deadly conflicts on Ugandan soil through 2005 (Lewis 2017). The worst and most protracted violence was carried out by the Lord's Resistance Army in the Northern region of Uganda from 1988 to 2005.

In response to this conflict, the government sought to develop projects that specifically targeted districts affected by violence. The Northern Uganda Social Action Fund (NUSAF I) was launched in 2002 as a World Bank financed effort to improve the socioeconomic welfare of poor and vulnerable households in the region. The project also included funds specifically for "community reconciliation and conflict management" but this amounted to only approximately 2.15 percent of the total US$ 133 million in cost.

In 2007 the government developed a comprehensive framework called the "Peace, Recovery, and Development Plan for Northern Uganda" (PRDP). Museveni wrote that the program was a "strategy to eradicate poverty and improve the welfare of the populace in Northern Uganda" (PRDP 2007, pg. iii). This framework, while still centered largely around poverty reduction, put greater emphasis on conflict prevention and the reconstitution of state authority in areas that were sites of violence.

Since these projects were specifically designed to be targeted to marginalized constituencies with a history of conflict, they could not be overtly manipulated to shore up political support in other constituencies. However, they were still vulnerable to political corruption in the government's handling of funds and implementation of projects. NUSAF I was mired in allegations of corruption at both the national and local levels, which likely contributed to the project's lack of effectiveness.[39] The PRDP in Northern Uganda was the subject of a public scandal in which senior officials and staff from the Office of the Prime Minister (OPM) were accused of embezzling US$ 12.7 million from the project and funneling it into their private accounts. In response, the European Union, United Kingdom, Germany, Denmark, Ireland, and Norway suspended aid.[40]

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[39] ICR Review, 2011, Independent Evaluation Group, Report Number: ICRR13351.
[40] The scandal was widely covered in both the local and foreign press, as well as by NGOs. For examples, see "How OPM staff stole from the poor," *Daily Monitor*, Oct. 26, 2012; "Letting the Big Fish Swim: Failures to Prosecute High Level Corruption in Uganda," *Human Rights Watch*, 2013; Batanda, Jackee Budesta, "Another Case of High Level Corruption in Uganda," *Foreign Policy*, Oct. 31, 2012.

4. Data & Research Design

Dependent Variables

For the main dependent variable, I consider all foreign aid commitments that are targeted at subnational administrative units. In Uganda, the majority of aid projects are allocated to the district level. However, since the number and boundaries of districts have changed significantly over time, I forego a district level analysis and use the county as the unit of analysis. Not only is this consistent with my analysis of electricity and police infrastructure, it allows me to avoid the problem of changing district boundaries between electoral cycles. However, it does require assumptions about how aid commitments that are targeted at the district level are allocated to the counties that are constituent parts of the district. Consistent with previous work on the distributive politics of aid (Jablonski 2014), I assume that district and regional level aid is distributed proportionally to the population of each constituent county.

To construct a panel dataset at the county level for Uganda, I draw on data covering all aid projects in Uganda's Aid Management Platform, maintained by Uganda's Ministry of Finance. These projects were subsequently geo-located by AidData (AidData 2016). These geo-located projects include those funded by the African Development Fund, World Bank (International Development Association), European Union, and the United Nations, as well as other bilateral donors and non-governmental organizations. The geocoded data cover 565 projects totaling over US$ 12 billion in aid commitments and US$ 6.79 billion in disbursements from 1978 to 2014. In addition to commitments, disbursements, and geographic coordinates, each project is assigned a precision code that indicates the lowest level geographic unit to which the project can be assigned. Using the coordinates of projects, I match projects coded at or below[41] the county level to the appropriate county unit. In some cases, a project is directed towards multiple locations. Since it isn't possible to determine the share of aid money going to each location, I assume that each location receives an equal portion of the project. I then use data on the date of project transactions to construct a county-year panel dataset of aid commitments between 1986 and 2013.

Many aid projects are not targeted or coded precisely enough to identify a unique county for the above measure. Since district level aid projects constitute the majority of aid projects in Uganda, I also construct a separate measure that includes district projects. To do this I match district level projects located in district k to all counties that belonged to district k in the year t. I allow county units to vary over time

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[41] This corresponds to precision codes 1 and 2 for the Ugandan data. Locations below the county administrative division include sub-counties, parishes, towns, and specific points like hospitals and power stations.

in district *k* as some counties are promoted to new district status themselves. For this measure I assume that each county *i* in district *k* receives a share of the transaction value equivalent to its population share of the district. I also consider aid projects coded at the regional level *r* in the same way. Projects that were targeted at the national level (or could only be coded as such) are not included in the analysis.

Following Jablonski (2014), I calculate the total sum of project commitments across administrative units and precision codes (PX_t) and weight them by population share as stated below:

$$\text{Aid}_{it} = \sum (P1_{it} + P2_{it}) + \sum (P3_{kt} * \frac{PopCounty}{PopDistrict}) + \sum (P4_{rt} * \frac{PopCounty}{PopRegion})$$

I then create a log-transformed per capita measure of county level aid commitments to use as the main dependent variable in the analysis, $log(\frac{Aid_{it}}{Population_{it}})$. When testing hypotheses about the precision of targeting, I use versions of this logged per capita variable that incorporate projects at different levels of geographic precision, PX_{it}. Finally, in addition to dependent variables for aid commitments, I also create similar variables for aid *disbursements* to test whether differences exist as the allocation process unfolds.

Table 1: Project-Locations by Geographic Precision Level

	Frequency	Percent	Cumulative
1 Exact Location/Populated Place	925	25.72	25.72
2 County or lower administrative unit[a]	128	3.56	29.27
3 District	1484	41.26	70.53
4 Region	57	1.58	72.12
5 Large Features (i.e. rivers or national park)	5	0.14	72.25
6 National (sub-national unknown)	612	17.01	89.27
8 National[b]	386	10.73	100.00

a Includes cases where location is known to be within 25 km of coordinates;
b Location often goes to government ministry or financial institution

Figure 1: Aid Allocations in Uganda (1978-2013)
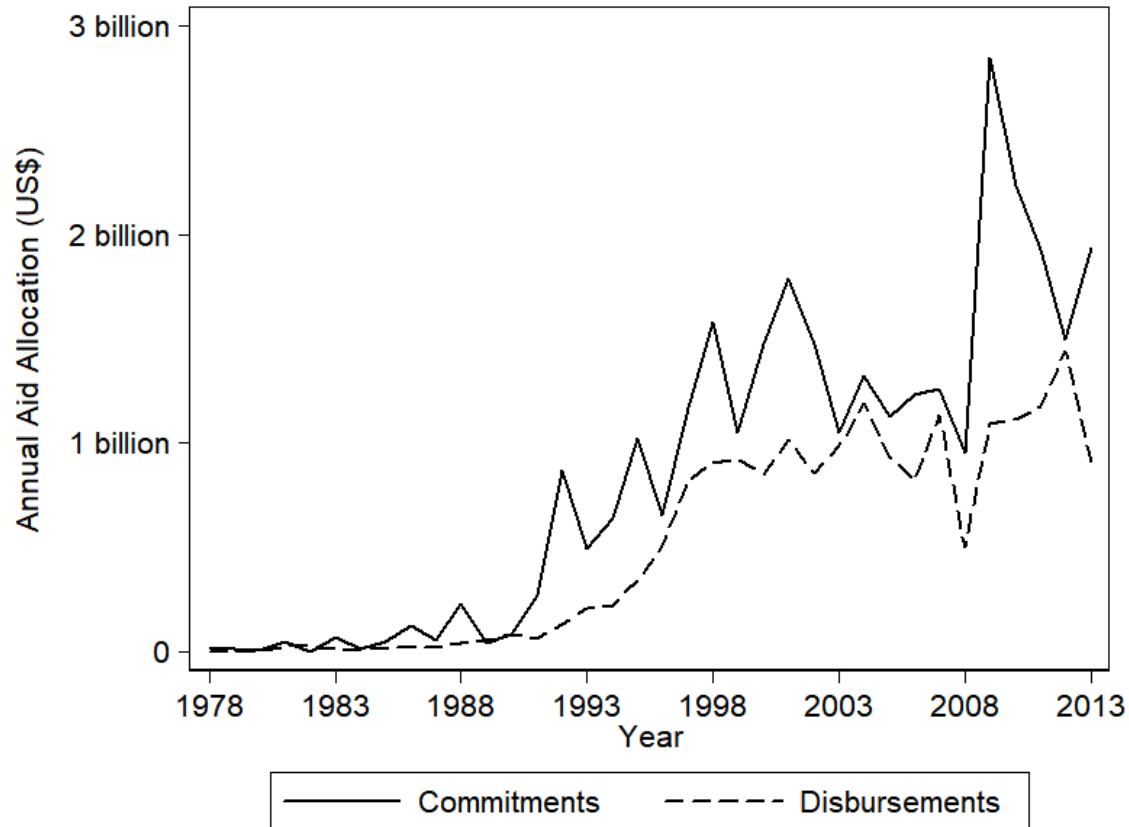
Main Independent Variables

For the main electoral variables, I use data on presidential elections from the Ugandan Electoral Commission. I include the incumbent president's vote share at the county level and the margin of victory for each county's leading vote-getter. To measure conflict, I employ data from ACLED (Raleigh et al 2010; ACLED 2017) and the UCDP Georeferenced Event Dataset (Sundberg & Melander 2013; Croicu & Sundberg 2017). From these datasets I construct several measures of violence. First, I use county-year measures of the stock of conflict events and fatalities in order to capture a longer-run history of conflict at the local level. The stock measure begins counting events and fatalities from the first year for which data is available (1997 for ACLED and 1989 for UCDP GED). Secondly, I also use the county-year sum of conflict events and fatalities to capture the short-term effects of changes in the "flow" of violence on aid allocations.

Control Variables

I include a number of control variables to account for factors that potentially confound the estimated relationship between the electoral and conflict variables and aid allocation. It is particularly important to account for local levels of economic development since poorer constituencies potentially have higher levels of violence and a greater need for development aid projects. I therefore include two different proxies for local development. First, I include the county's mean annual light intensity from Version 4 of the DMSP-OLS Nighttime Light Time-series provided by the National Oceanic and Atmospheric Administration. Secondly, I draw on a development index created by Grossman & Lewis (2014) that incorporates county level information on poverty, employment, educational attainment, literacy, schools, and health clinics. Local ethnic demographics may also shape how leaders target development aid so I consider the role of ethnicity by including the share of each county that matches the ethnicity of the president (Banyankole), as well as its ethnolinguistic fractionalization. The cost of implementing aid projects and the likelihood of conflict are also potentially shaped by geographic factors. I include a measure for the distance from the national capital to the centroid of each county since state capacity may decay as distance increases (thus increasing the chances of violence and opposition support), while project costs may possibly increase as well. Rough terrain is also thought to affect the likelihood of violence and the provision of public goods like electricity, so I also include a measure of the standard deviation of each county's altitude. Finally, I also include a lagged dependent variable to control for the possibility that aid allocations in the previous year influence the amount of aid allocated in the current year. Table 2 below provides descriptive statistics for these and the other key variables.

Table 2: Summary Statistics

	N	Mean	SD	Min	Max
Log Per Capita Aid	3787	0.58	1.07	0.00	7.29
Museveni Vote Share	2942	0.67	0.26	0.03	0.99
Margin of Victory (county winner)	2942	0.56	0.28	0.00	0.99
Conflict Stock ACLED	3785	8.02	24.77	0.00	387
Conflict Stock UCDP	4156	1.93	8.09	0.00	87
Night Lights (Mean)	3739	1.06	4.33	0.00	51.33
Development Index	2771	0.00	0.80	-0.99	3.02
Distance to Kampala	3764	208.7	95.13	0.00	397.3
Altitude Deviation	3762	4.15	1.06	2.14	6.94
Share Banyankole	3716	0.11	0.24	0.00	0.98
ELF	3739	0.37	0.25	0.01	0.91
County Population	3787	152477	115488	7538	1161114

Empirical Models

The effect of electoral support and violence on foreign aid commitments are estimated by multivariate regressions using ordinary least squares (OLS). To account for changes over time I estimate specifications using linear time trends and, alternatively, year fixed effects. I also include models with county level fixed effects to account for unobserved time-invariant confounders. To account for potential spatial dependence I include models that follow Conley (1999) and Hsiang (2010) in correcting OLS standard errors for spatial and serial correlation.

Since incumbent support and violence are not distributed randomly, the identifying assumption for estimating the causal effects of these key political and conflict variables is "selection on observables". We assume that all time-varying confounders can be observed and included as "control" variables. While this is a strong assumption, alternative strategies that make weaker assumptions present their own weaknesses as well. In particular, a regression discontinuity design (RDD) based on close elections could potentially help recover the causal effect of local partisan control on county level foreign aid commitments. However, by definition this causal effect is only identified at the cut-point of the running variable (margin of victory) and therefore limits our inferences to a sample of swing counties and tells us nothing about the targeting strategies in core support or opposition constituencies. Since the theoretical questions and variables of interest are much broader than local partisan control, an RDD would be a poor fit for testing the implications of the theory.

5. Results

Table 3 shows estimates for the primary set of statistical models that test H1-H3. Model 1 is a multivariate OLS regression with region dummies and a linear time trend. Model 2 introduces county level fixed effects and Model 3 adjusts standard errors to account for spatial dependence following Conley (1999) and Hsiang (2010). The key results concern the electoral (*Museveni Vote Share* and *Margin of Victory*) and *Conflict Events Stock* variables.

The estimates for the electoral variables show surprising results that run counter to most work on foreign aid and distributive politics. The coefficient on vote share is negative and statistically significant across all three models, offering evidence against the core constituency hypothesis (H1). Instead, counties with lower levels of support for the president in the previous election receive greater per capita levels of aid commitments. The estimate for victory margin is positive and significant (*p<0.001)* in Model 1, suggesting that less competitive counties receive more aid. The estimates for margin are inconsistent though as they are no longer statistically significant in Models 2

and 3. Still, taken together, the results for the electoral variables provide strong evidence *against* the core supporter (H1) and swing constituency (H2) hypotheses. Instead, it appears that strong electoral opposition counties have received a greater level of aid commitments per capita. This is an unexpected finding in the broader literature on the political economy of aid but is consistent with the theory I propose.

Next, the estimate for the conflict stock variable is consistently positive and statistically significant ($p<0.001$) across all three models. These models provide strong evidence in support of the reconstruction hypothesis (H3) that counties with greater stocks of conflict in the past receive greater per capita aid commitments in the current time period. Importantly, this relationship is not simply a function of local levels of development since it remains significant when controlling for both night lights and the broader local development index. This relationship is also replicated when using the conflict events stock variable generated using data from the UCDP Georeferenced Event Dataset (see Table A2 in the Appendix). A strong, positive effect is also estimated using a conflict fatalities stock drawn from both ACLED and UCDP, though the UCDP measure does not remain statistically significant for all specifications (see Tables A1 and A2 in Appendix).

To examine the relative marginal effects of each variable, I standardize them and plot them in Figure 2. These standardized variables can be interpreted as the marginal effect of a one standard deviation change in the independent variable. Surprisingly, counties with higher levels of support for the president are associated with a large decrease in the level of aid per capita. A one standard deviation increase in support from the sample mean (approximately 25 percentage points) is associated with a 14.3% decrease in aid per capita (in constant US dollars). Across models this effect remains negative, statistically significant, and large in magnitude. Furthermore, the victory margin estimate is positive and statistically significant in Model 1. For a one standard deviation increase in the margin of victory for the county's winner (28 percentage points), there is a 7% increase in aid per capita. The magnitude for the conflict stock is also relatively large as a one standard deviation increase in the stock of conflict events (~25 events) is associated with a 7% increase in aid per capita.

Table 3: Effect of Elections and Violence on Aid Commitments

	(1)	(2)	(3)
Museveni Vote Share	-0.507	-1.810	-0.398
	(0.130)***	(0.191)***	(0.209)*
Margin of Victory (county winner)	0.265	0.126	-0.045
	(0.094)***	(0.146)	(0.159)
ACLED Conflict Events (Stock)	0.002	0.006	0.005
	(0.001)***	(0.001)***	(0.001)***
Night Lights (Mean)	0.027	0.036	0.016
	(0.020)	(0.019)*	(0.020)
Log Aid Per Capita (Lagged)	0.119	-0.029	0.121
	(0.058)**	(0.019)	(0.067)*
Development Index	0.000		-0.398
	(0.000)		(0.209)*
Distance to Kampala	0.020		
	(0.028)		
Altitude Deviation	0.028		0.014
	(0.020)		(0.037)
County Population	-0.000		0.080
	(0.000)		(0.040)**
Share Banyankole	0.017		0.000
	(0.100)		(0.000)
ELF	0.098		0.114
	(0.097)		(0.173)
Area	0.000		0.185
	(0.000)		(0.122)
Time Trend	0.046	0.039	0.000
	(0.004)***	(0.005)***	(0.000)
Constant	-92.397	-75.686	
	(7.271)***	(9.621)***	
R^2	0.08	0.10	0.33
N	2,737	2,934	2,737
Region Dummies	Yes	No	Yes
County Fixed Effects	No	Yes	No
Spatial Kernel	None	None	50 KM

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Figure 2: Standardized Marginal Effects
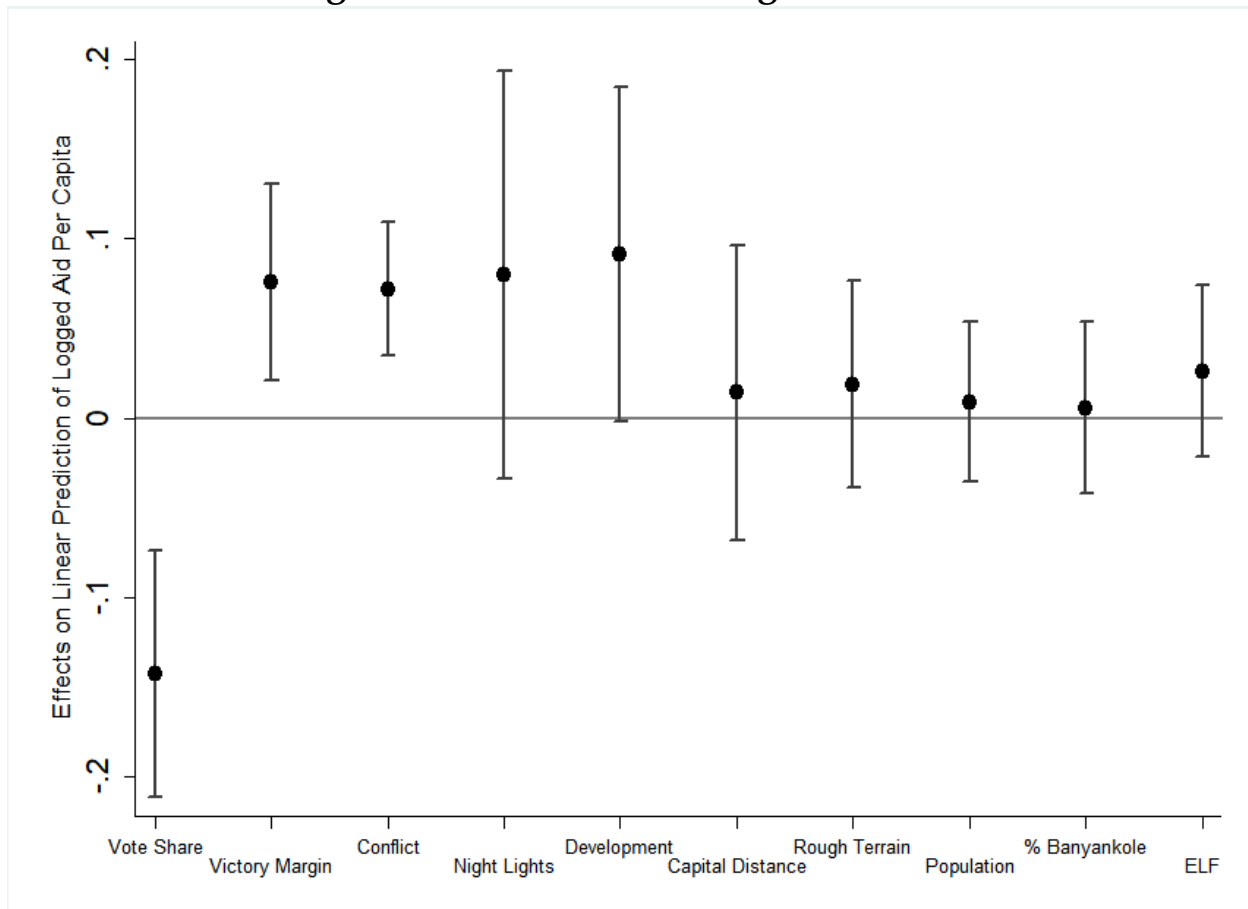
Figure 2: This figure displays the coefficient estimates from model 1 in Table 3. The variables are standardized so that a one-unit change is equivalent to a one standard deviation change in each variable for the model's sample population.

Political Violence and Short-run Aid Commitments

The previous results indicate that aid commitments are responsive to the stock of conflict events and fatalities at the county level. As a test of the insecurity hypothesis (H4), this section examines the related question of whether annual changes in the number of conflict events and fatalities has an impact on aid commitments in the following year. This is an important question since it is possible that a government could seek to target historically high conflict counties for greater aid but only once violence has diminished to a manageable level and security has been improved. If violence remains high in the present term, aid allocations may remain lower than average due to risks to civilians and aid workers and the associated high costs of project implementation and lower chances of effectiveness.

Table 4 shows the results for a similar battery of regression models that substitute conflict flows for conflict stock variables (drawing on the ACLED data). While the estimates for annual conflict events (Models 4-6) and annual fatalities (Models 7-9) are always positive, they generally do not approach conventional levels of statistical significance. Overall, they do not provide strong evidence that aid commitments are either positively or negatively responsive to recent levels of violence. Using the UCDP data for the conflict variables also produces largely null results, though the estimates are always negative (see Table A3 in Appendix).

Table 4: Foreign Aid Commitments & ACLED Annual Conflict

	(4)	(5)	(6)	(7)	(8)	(9)
Annual Conflict Events[L]	0.008	0.012	0.008			
	(0.007)	(0.007)*	(0.007)			
Annual Fatalities[L]				0.015	0.009	0.008
				(0.023)	(0.023)	(0.023)
R^2	0.08	0.07	0.34	0.07	0.07	0.34
N	2,576	2,608	2,576	2,576	2,608	2,576
Time Trend	Yes	Yes	Yes	Yes	Yes	Yes
Control Variables	Yes	Yes	Yes	Yes	Yes	No
Region Dummies	Yes	No	Yes	Yes	No	Yes
County Fixed Effects	No	Yes	No	No	Yes	No
Spatial Kernel	None	None	50 KM	None	None	50 KM

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Aid Disbursements Patterns

Focusing on aid commitments, the empirical analysis thus far has provided strong evidence against the political model of aid (H1 and H2) and for the reconstruction hypothesis (H3). In this section, I also present results for the effect of these variables on the disbursement of aid. Much of the existing subnational work on aid allocation has focused on the size of aid commitments (Jablonski 2014; Dreher et al 2016) or number of project commitments (Bezerra & Braithwaite 2016; Masaki 2018). While Jablonski (2014) correctly points out that government control over project location and funding size mostly occurs at the commitment stage when international donors and governments negotiate and create official plans, it is at least equally important to also understand disbursal patterns since they represent a critical part of the actual implementation and effectiveness of aid projects. For example, projects could be strategically and systematically delayed or left unfinished in particular types of electoral constituencies, thus leaving the disbursement of aid lagging behind the original commitments.

To develop a fuller picture of the politics of aid allocation, I estimate the same set of statistical models on a county-year variable of *logged aid disbursed per capita*. These are shown in Table 5 as Models 10-12. First, the results are largely similar for the conflict events stock variable. As with aid commitments, conflict stocks are positively associated with aid disbursements as well. However, the results for the electoral variables are very different. In fact, for aid disbursements the coefficients for both the vote share and margin of victory variables are estimated in the opposite direction as they were for aid commitments. The Museveni vote share shows a strong positive relationship with aid disbursements ($p<0.001$) but this effect appears to be non-linear[42] as the margin of victory is consistently estimated with a statistically significant, negative coefficient ($p<0.05$).

This reversal of electoral patterns between aid commitments and disbursements is intriguing and deserves further investigation. However, it suggests that government capture may be occurring after the commitment stage in Uganda. Central government corruption on projects systematically located in opposition constituencies[43] could potentially cause delays or suspensions for projects' disbursement funding and push the bias in allocation patterns toward swing and core constituencies. Alternatively, as Williams (2018) demonstrates in Ghana, a systematic lack of local institutional quality and capacity could be hampering the disbursal of funds and the completion of projects. If county governments in opposition strongholds are more likely to be of lower institutional quality and capacity, then higher rates of local corruption[44] or mismanagement could possibly be leading to delays or suspensions of local projects and lower disbursal rates.

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[42] This relationship also holds when estimating the models using electoral variables for Museveni's margin of victory and his margin of victory squared.

[43] This is the case for the PRDP scandal referenced in section 3. The embezzlement took place in the Office of the Prime Minister in Kampala while the project sites were located exclusively in districts in the North and Northeast of the country.

[44] This dynamic appears to have occurred often in the implementation of the earlier Northern reconstruction project, NUSAF 1.

Table 5: Effect of Elections and Violence on Aid Disbursements

	(10)	(11)	(12)
	Aid Disbursed Per Capita	Aid Disbursed Per Capita	Aid Disbursed Per Capita
Museveni Vote Share	0.229	0.647	0.206
	(0.039)***	(0.137)***	(0.053)***
Margin of Victory (county winner)	-0.079	-0.205	-0.225
	(0.040)**	(0.086)**	(0.052)***
ACLED Conflict Events (Stock)	0.002	0.001	0.004
	(0.000)***	(0.001)	(0.001)***
R^2	0.16	0.14	0.19
N	2,731	2,928	2,731
Region Dummies	Yes	No	Yes
County Fixed Effects	No	Yes	No
Spatial Kernel	None	None	50 KM

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

In addition to the main models, I also test the effect of recent conflict flows on the disbursement of aid. The analysis provides some evidence that increases in recent violence within a county has a deterring effect on aid disbursement. In Table 6, Models 14 and 17 show a strong negative relationship between conflict events and fatalities at $t-1$ and aid disbursement levels at t. These estimates come from the within-estimator using county level fixed effects and provide suggestive evidence that officials are withholding the disbursement of funds until security is restored and violence is reduced within the county.

Table 6: Aid Disbursements & ACLED Annual Conflict

	(13)	(14)	(15)	(16)	(17)	(18)
Annual Conflict Events^L	-0.002	-0.008	-0.001			
	(0.001)	(0.002)***	(0.002)			
Annual Fatalities^L				-0.000	-0.013	-0.003
				(0.006)	(0.007)*	(0.006)
R^2	0.16	0.15	0.17	0.16	0.15	0.17
N	2,570	2,602	2,570	2,570	2,602	2,570
Time Trend	Yes	Yes	Yes	Yes	Yes	Yes
Control Variables	Yes	Yes	Yes	Yes	Yes	No
Region Dummies	Yes	No	Yes	Yes	No	Yes
County Fixed Effects	No	Yes	No	No	Yes	No
Spatial Kernel	None	None	50 KM	None	None	50 KM

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Notes: L denotes variable lagged by one year.

Project Precision and Allocation Patterns

In this section I focus the analysis on whether more precisely targeted projects are associated with less politicized aid allocation (H5). The dependent variables for aid allocation take on county-year sums of aid allocation at the county level and below (precision codes 1 and 2) and districts (precision code 3). They are computed as follows:

$$Prec12Aid_{it} = \sum (P1_{it} + P2_{it})$$

$$Prec3Aid_{it} = \sum (P3_{kt} * \frac{PopCounty}{PopDistrict})$$

The results using aid commitments as the outcome are shown in Table 7, while aid disbursements are shown in Table 8. The results indicate that most of the effect is driven by projects allocated at the district level. This is not surprising since district level projects account for approximately 40% of project-locations. The vote share, vote margin, and conflict coefficients tend to have the same sign when for both *Prec12Aid* and *Prec3Aid*. However, the estimates are consistently statistically significant and larger in magnitude for district level projects. The estimated relationships are also consistent with the previous analysis that includes the total of all aid projects up to the regional level (precision code 4). Overall, the evidence does not support the hypothesis (H5) that more precisely targeted aid is less politicized than aid at more aggregated levels.

Table 7: Aid Commitments by Project Precision Level

	(19)	(20)	(21)	(22)	(23)	(24)
Project Precision Level	Prec 1,2	Prec 1,2	Prec 1,2	Prec 3	Prec 3	Prec 3
Museveni Vote Share	-0.073	-0.393	-0.046	-0.315	-1.321	-0.278
	(0.082)	(0.124)***	(0.103)	(0.123)**	(0.160)***	(0.133)**
Margin (winner)	0.074	-0.089	-0.010	0.109	-0.009	-0.067
	(0.074)	(0.101)	(0.078)	(0.083)	(0.120)	(0.108)
ACLED Events (Stock)	0.000	0.001	0.002	0.003	0.007	0.004
	(0.001)	(0.001)	(0.001)**	(0.001)***	(0.001)***	(0.001)***
R^2	0.07	0.02	0.12	0.09	0.09	0.26
N	2,737	2,934	2,737	2,737	2,934	2,737
Time Trend	Yes	Yes	Yes	Yes	Yes	Yes
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Region Dummies	Yes	No	Yes	Yes	No	Yes
County Fixed Effects	No	Yes	No	No	Yes	No
Spatial Kernel	None	None	50KM	None	None	50 KM

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Note: Precision 1,2 include projects that are geo-located at the county level or smaller administrative units. Precision 3 includes projects that are geo-located at the district level.

Table 8: Aid Disbursements by Project Precision Level

	(25)	(26)	(27)	(28)	(29)	(30)
Project Precision Level	Prec 1,2	Prec 1,2	Prec 1,2	Prec 3	Prec 3	Prec 3
Museveni Vote Share	0.056	0.086	0.074	0.111	0.253	0.103
	(0.031)*	(0.084)	(0.030)**	(0.027)***	(0.096)***	(0.041)**
Margin (winner)	-0.021	-0.090	-0.089	-0.027	-0.145	-0.099
	(0.030)	(0.046)*	(0.029)***	(0.028)	(0.061)**	(0.036)***
ACLED Events (Stock)	-0.000	-0.001	0.001	0.002	0.002	0.003
	(0.000)	(0.000)**	(0.000)**	(0.000)***	(0.001)***	(0.001)***
R^2	0.03	0.03	0.03	0.11	0.09	0.14
N	2,713	2,910	2,713	2,713	2,910	2,713
Time Trend	Yes	Yes	Yes	Yes	Yes	Yes
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Region Dummies	Yes	No	Yes	Yes	No	Yes
County Fixed Effects	No	Yes	No	No	Yes	No
Spatial Kernel	None	None	50KM	None	None	50 KM

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Note: Precision 1,2 include projects that are geo-located at the county level or smaller administrative units. Precision 3 includes projects that are geo-located at the district level.

Changes in Strategic Environment of Aid Allocation

Thus far the analysis has largely focused on the entire time period between 1996, the year of the first post-war election in Uganda, to 2013. In this section, I examine whether broader changes in the strategic environment have shaped aid allocation patterns in the country. The theory I propose earlier in this chapter draws on Girod (2012, 2015) to argue that aid allocation patterns should respond in predictable ways to shifts in the strategic goals of donors and the relative willingness of recipient countries to adhere to conditions for income.

As mentioned previously in section 3, following the September 11th attacks Uganda became a key strategic ally in East Africa for the United States in its "War on Terror". Before this sudden shift in its position, Uganda had been heavily reliant on donors for critical funding and its lack of strategic leverage meant that it needed to adhere to program conditions in order to assure itself future funding. Shortly after the attacks, the U.S. government placed both the Allied Defense Forces (ADF) and LRA on the State Department's Terrorist Exclusion List.[45] The common interests of both governments in fighting terrorist groups translated into direct U.S. military assistance and Ugandan support for the U.S. invasion of Iraq. As this relationship progressed, Uganda became a key player in operations throughout Africa, but particularly in

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[45] See "US Lists ADF, LRA as Terrorists." *New Vision*. Dec. 8, 2001. Also discussed in Branch 2009.

Somalia as part of a multilateral effort to respond to the growing threat of Al-Shabaab and terrorism.

To get a better sense of when this shift in the strategic environment translated to material changes for the government, Figure 3 plots the annual totals of U.S. military aid in Uganda since 1980. The measure includes U.S. military aid allocated to recipient countries for both training[46] and grants and equipment.[47] First, we should note that U.S. military aid is relatively small in magnitude compared to the billions of dollars in commitments of non-military aid shown in Figure 1. Furthermore, we can see that this shift in the strategic environment did not translate into greater U.S. military aid immediately. In fact, it was not until 2010 that military aid sharply increased with the passage by the U.S. government of the "Lord's Resistance Army Disarmament and Northern Uganda Recovery Act". This act sought to "support stabilization and lasting peace in northern Uganda and areas affected by the Lord's Resistance Army through development of a regional strategy to support multilateral efforts to successfully protect civilians and eliminate the threat posed by the Lord's Resistance Army"(U.S. Congress, S. 1067).

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[46] This includes military aid from the Counter Terrorism Fellowship Program, International Military Education and Training Program, and Global Train and Equip Program. Values are presented in constant 2015 US dollars. Data were accessed through USAID Greenbook/US Foreign Aid Explorer.

[47] Grants and equipment aid includes funding dedicated to stabilization operations, security sector reform, counter-terrorism, and combatting weapons of mass destruction.

Figure 3: Military Aid in Uganda (1980-2013)
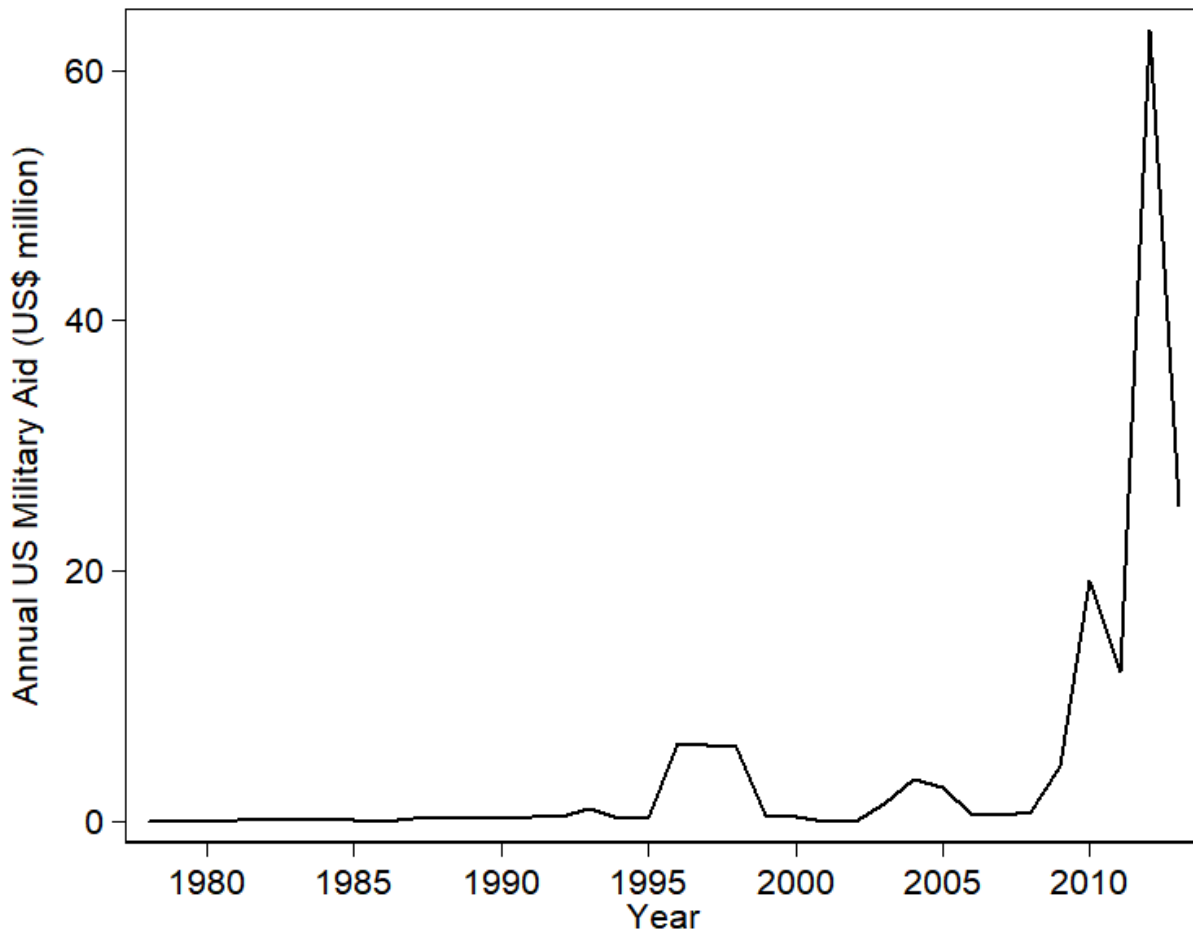
Given the magnitude and timing of increases in U.S. military assistance in Uganda, it seems unlikely that these new aid flows themselves had significant effects on allocation patterns of non-military aid. However, it remains possible that having closer ties to the U.S. and a clear strategic role in the region after 2001 allowed the Ugandan government to use more aid for political purposes with fewer concerns about being sanctioned or punished by international donors. I explore this possibility in two ways. First, I examine whether this shock in the strategic environment translated into an increase in non-military aid using an interrupted time series (ITS) regression.[48] Second, I examine whether government allocation patterns shifted after 2001 with respect to electoral support and conflict.

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[48] A possible alternative is a regression discontinuity design (RDD) using time as a running variable and the year 2002 as the threshold. However, an RDD is infeasible in this context since the discontinuity is at the national level and applies to all units simultaneously rather than assigning some subnational units to control. At the national level, there is simply not enough data to estimate the RD.

An interrupted time series design allows for the estimation of the effect of an aggregate level intervention implemented at a specific point in time (Campbell & Glass 1966; Linden 2015; Bernal et al 2017). The following standard ITS regression model is estimated:

$$Y_t = \beta_0 + \beta_1 T + \beta_2 X_t + \beta_3 T X_t$$

Where β_0 represents the baseline level of the outcome variable, Y_t, when $T = 0$. β_1 is the change in Y_t as a result of an increase in a unit of T. β_2 represents the change in the level of the outcome after the intervention, X_t. Finally, β_3 is the change in the slope of the post-intervention period. For the model that follows, the dependent variable is the log-transformed annual total of aid commitments. I also include time-varying controls for GDP per capita, U.S. military aid, population, and UCDP conflict.

Figure 4 presents a plot of the interrupted time-series regression. The results suggest that the post-2001 change in the strategic environment did not lead to a significant increase in aid commitments available to the Ugandan government. In fact, the model estimates a significant decrease in the level of aid commitments in 2002, as well as a decreased post-intervention trend line. This flattened trend line is consistent with the view that the Museveni government was willing to forego some non-strategic aid during this time period as the ruling party took steps to consolidate its power, such as eliminating presidential term limits (Barkan et al 2004; Girod et al 2009). In response to this consolidation of power, several non-strategic donors significant portions of their aid commitments (Girod 2015).

Figure 4: Interrupted Time-Series Regression
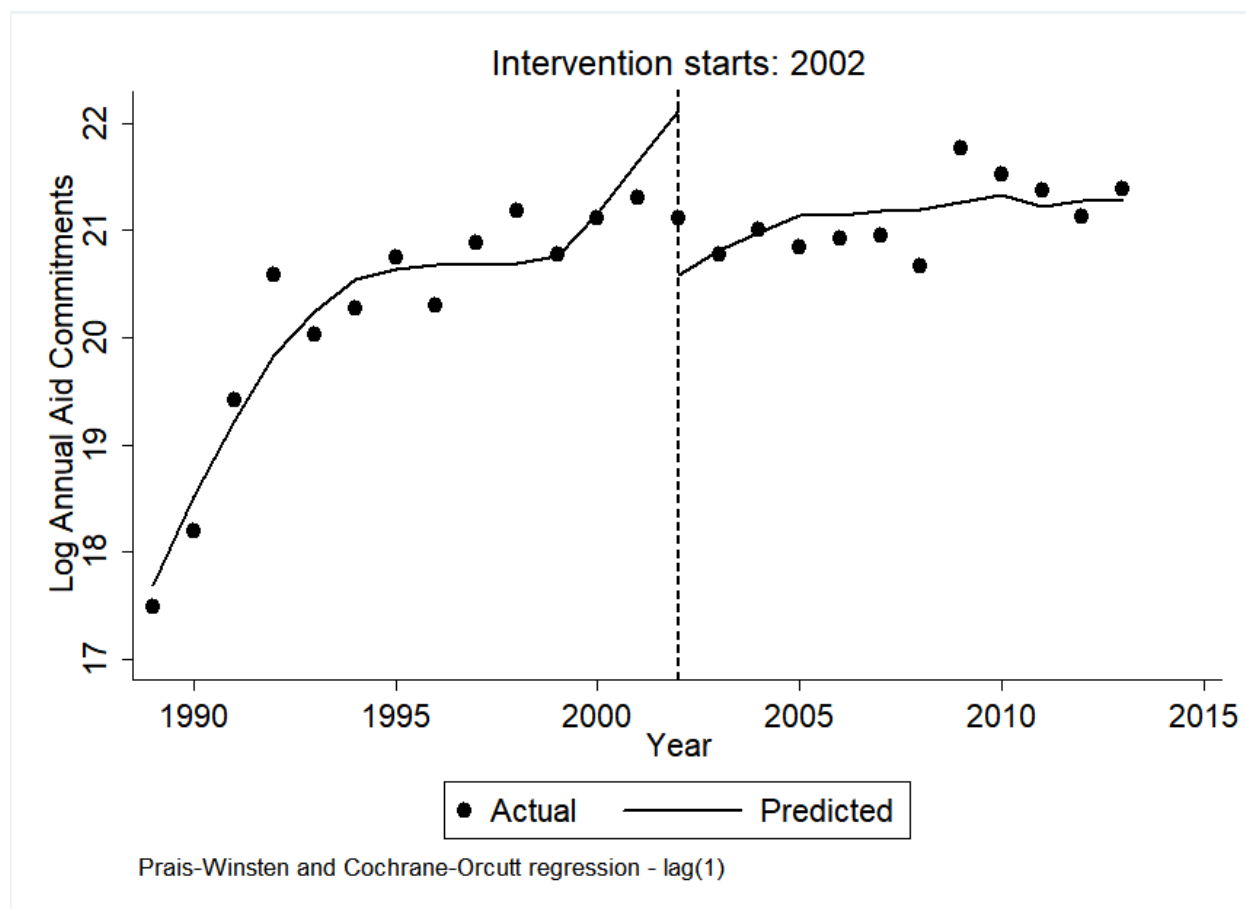
I now turn towards testing whether the NRM government's pattern of aid allocation shifted after 2001. To do this I fit OLS regression models with interactions between the key independent variables and a time dummy, D_t, for the post-2001 period according to the following basic specification:

$$Y_{it} = \beta_0 + \beta_1 D_t + \beta_2 (VoteShare_{it}) + \beta_3 (D_t * VoteShare_{it}) + \beta_4 (Margin_{it}) + \beta_5 (D_t * Margin_{it}) + \beta_6 (Conflict_{it}) + \beta_7 (D_t * Conflict_{it}) + \beta_8 X_{it} + e_{it}$$

If the shift towards greater reliance on strategic aid allowed the government to allocate projects for political purposes more easily, then when comparing the effect of the electoral and conflict variables before and after 2001, we should observe the following:

Vote share - greater allocation towards core constituencies: $\beta_2 < \beta_3$.
**Vote margin** – greater allocation towards swing constituencies: $\beta_4 > \beta_5$.
Conflict – lower allocation towards constituencies with greater conflict: $\beta_6 > \beta_7$.

The regression results for aid commitments are shown in Table 9. For ease of interpretation, I plot the estimated marginal effect of vote share, vote margin, and the conflict events and fatalities variables for both the pre-2001 and post-2001 time periods. The aid commitment results are mixed as the electoral variables do not conform to the theoretical predictions. Instead, the marginal effect of vote share remains negative for aid allocations after 2001 and has a greater magnitude than before ($\beta_2 > \beta_3$; a significant difference at $p<0.001$). Additionally, the effect for margin of victory is greater after 2001 as well ($\beta_4 < \beta_5$; a significant difference at $p<0.01$). The marginal effect of conflict events does correspond to the predictions. Though the marginal effect remains positive for both periods, it is smaller after 2001 ($\beta_6 > \beta_7$; a significant difference at $p<0.10$).

Table 9: Strategic Aid & Commitment Patterns

	(S1)	(S2)	(S3)	(S4)
Post2001	-0.011	0.004	-0.061	-0.029
	(0.135)	(0.146)	(0.144)	(0.162)
Museveni Vote Share	-0.042	-1.591	-0.111	-1.548
	(0.122)	(0.193)***	(0.120)	(0.196)***
Post2001 X Museveni Vote Share	-0.842	-0.899	-0.798	-0.947
	(0.162)***	(0.195)***	(0.151)***	(0.194)***
Margin of Victory (winner)	-0.140	-0.352	-0.108	-0.372
	(0.145)	(0.220)	(0.146)	(0.222)*
Post2001 X Margin of Victory	0.606	0.486	0.579	0.512
	(0.192)***	(0.221)**	(0.195)***	(0.231)**
ACLED Conflict Events Stock	0.012	0.023		
	(0.006)**	(0.007)***		
Post2001 X Conflict Events Stock	-0.011	-0.018		
	(0.006)*	(0.007)**		
ACLED Fatalities Stock^z			0.067	0.115
			(0.094)	(0.134)
Post2001 X ACLED Fatalities Stock			-0.048	-0.056
			(0.096)	(0.127)
R^2	0.09	0.10	0.09	0.09
N	2,737	2,737	2,737	2,737
Region Dummies	Yes	No	Yes	No
County Fixed Effects	No	Yes	No	Yes
Spatial Kernel	None	None	None	None

Figure 5: Effects on Aid Commitments (Before & After Strategic Aid)

Each plot holds the other variable at its mean
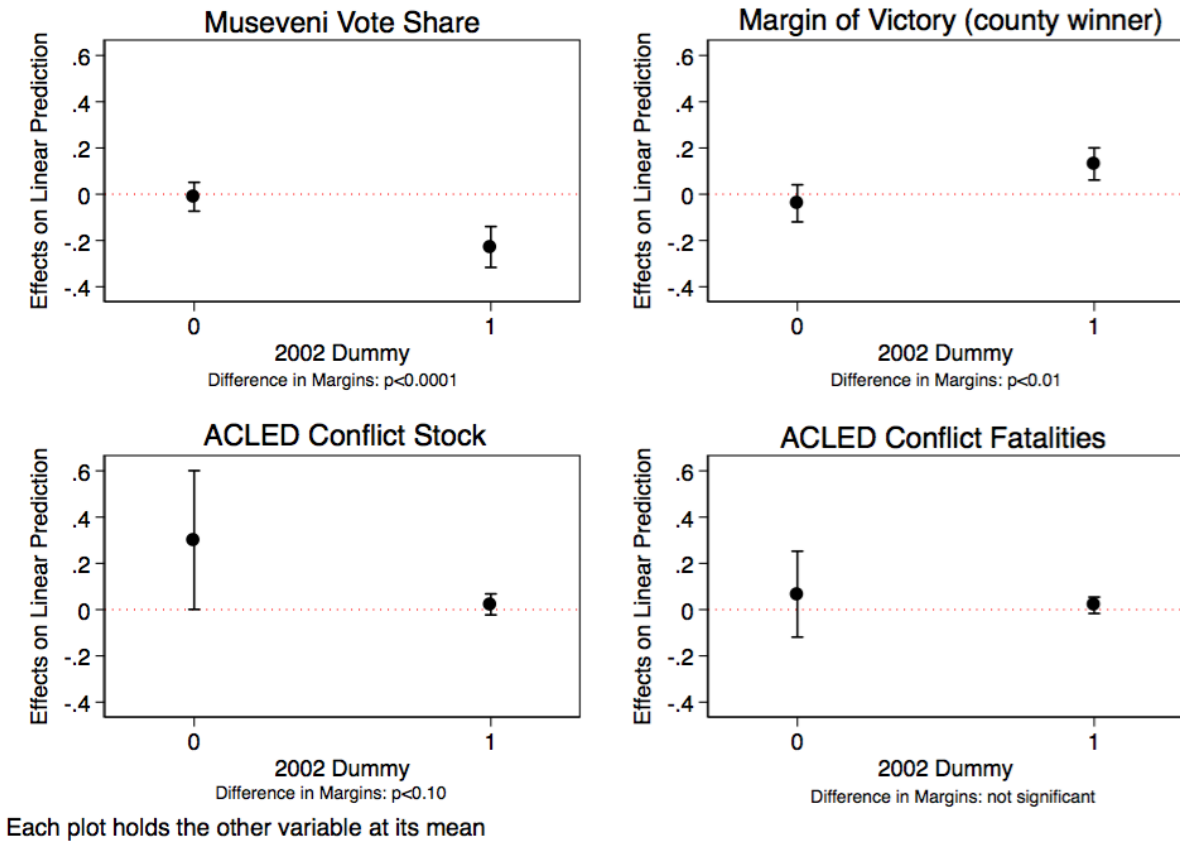
I also conduct the same analysis for aid disbursements which is shown in Table 10 and Figure 6. The aid disbursement results again show the reverse pattern of aid commitments. The marginal effect for vote share is positive for both periods but grows larger after 2001 ($\beta_2 < \beta_3$; a significant difference at $p<0.001$). Additionally, the effect for margin of victory is greater after 2001 as well ($\beta_4 < \beta_5$; a significant difference at $p<0.10$). The marginal effects for conflict on disbursements also move in the opposite direction of the pattern for commitments. In the pre-2001 period, the marginal effects for both conflict events and fatalities have negative point estimates but are indistinguishable from zero. However, the effects become positive in the post-2001 period. The difference between the marginal effects is also significant at $p<0.005$).

Table 10: Strategic Aid & Disbursement Patterns

	(S5)	(S6)	(S7)	(S8)
Post2001	-0.321	-0.349	-0.256	-0.296
	(0.048)***	(0.056)***	(0.047)***	(0.054)***
Museveni Vote Share	0.119	0.461	0.127	0.504
	(0.043)***	(0.124)***	(0.037)***	(0.127)***
Post2001 X Museveni Vote Share	0.173	0.253	0.089	0.185
	(0.048)***	(0.061)***	(0.047)*	(0.057)***
Margin of Victory (winner)	-0.036	-0.136	-0.042	-0.158
	(0.030)	(0.075)*	(0.030)	(0.077)**
Post2001 X Margin of Victory	-0.099	-0.160	-0.075	-0.142
	(0.054)*	(0.062)**	(0.052)	(0.060)**
ACLED Conflict Events Stock	-0.002	-0.000		
	(0.001)	(0.002)		
Post2001 X Conflict Events Stock	0.005	0.004		
	(0.002)***	(0.002)**		
ACLED Fatalities Stock^Z			-0.022	0.014
			(0.012)*	(0.019)
Post2001 X ACLED Fatalities Stock			0.072	0.058
			(0.017)***	(0.015)***
R^2	0.18	0.18	0.18	0.17
N	2,731	2,731	2,731	2,731
Region Dummies	Yes	No	Yes	No
County Fixed Effects	No	Yes	No	Yes
Spatial Kernel	None	None	None	None

Figure 6: Effects on Aid Disbursements (Before & After Strategic Aid)

Note: Each plot holds the other variables at their mean
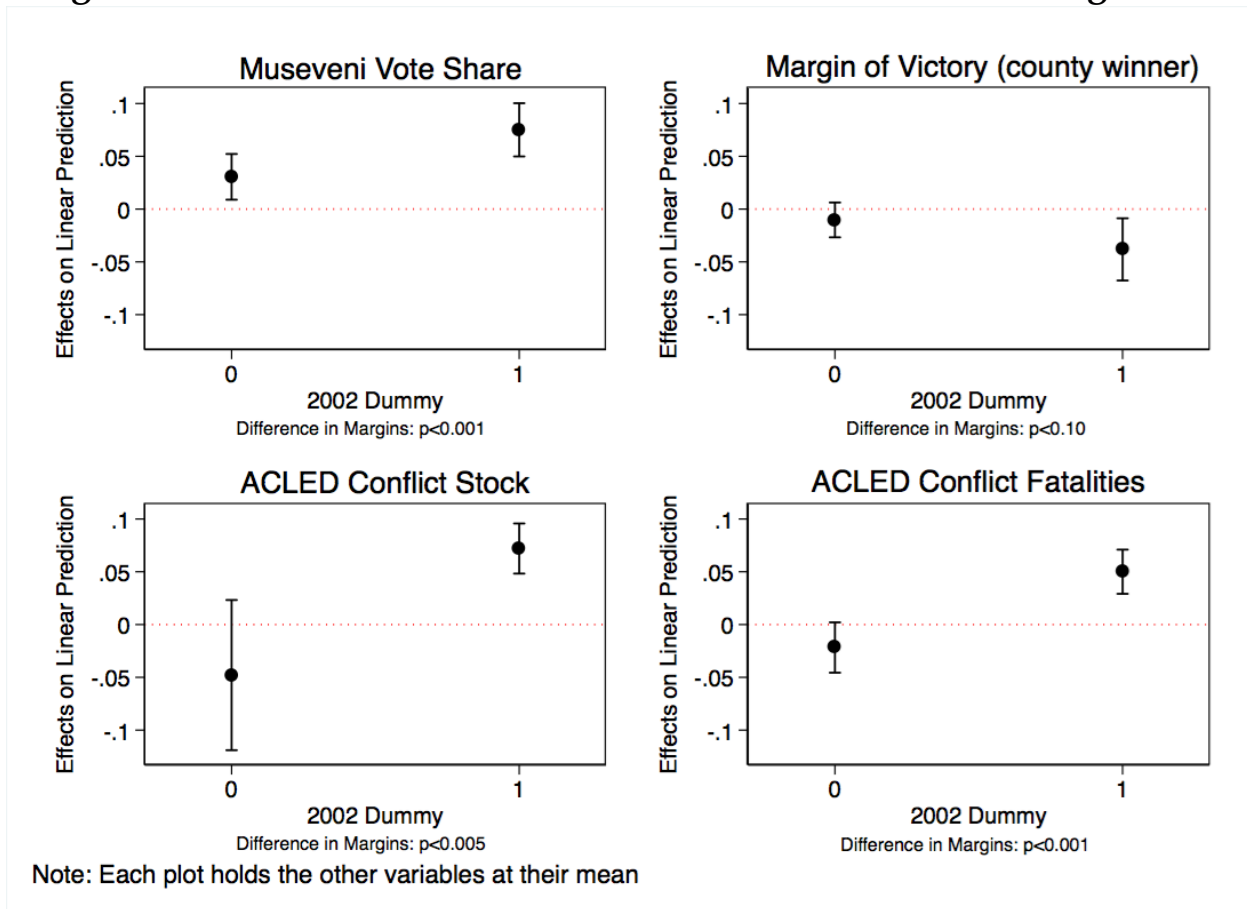
6. Conclusion

The analysis in this chapter provides evidence that aid allocation under the post-conflict NRM government in Uganda has not occurred along traditional dimensions of political and electoral targeting. Instead, foreign aid has been allocated towards different constituencies over time in ways that largely corroborate the theory I propose. First, constituencies with higher stocks of conflict events and fatalities have been targeted for higher levels of aid consistently throughout the post-war period. This relationship in particular stands out against the backdrop of null findings with respect to electricity and police targeting in earlier chapters. This positive relationship between conflict and aid also holds despite the shift in the strategic environment. While qualitative accounts suggest that the Ugandan government has become increasingly less dependent on foreign donors—and therefore increasingly less dependable for effectively implementing projects—the analysis suggests that this shift has not impacted the deployment of non-military aid. In other words, donors are not simply subsidizing

the campaign war chest of the ruling party, but instead large amounts of aid have been targeted to areas of the country vulnerable to violent conflict.

However, externally provided resources for reconstruction may still have consequences for the incumbent government's strategy, control, and persistence. Externally funded post-conflict aid that is geographically constrained still frees the government to use its other resources to focus on constituencies it finds politically important and hence can reinforce its political control. Thus, post-conflict aid may contribute to peace in two ways. First, by providing aid for reconstruction and then secondarily by reducing political instability at the center. While these are important goals and can enhance the welfare of the population in post-conflict settings, aid may of course also contribute to the long-run control of government by the same incumbent ruler or party. Aid may essentially help governments to eat their cake and have it too, by freeing governments to more effectively target areas of violence and (non-conflict) electorally important constituencies simultaneously.

Appendix 3: Additional Tables and Figures

A1: Aid Commitments & ACLED Fatalities Stock

	(OLS)	(OLS-FE)	(OLS-Spatial)
Museveni Vote Share	-0.611	-1.852	-0.511
	(0.130)***	(0.210)***	(0.209)**
Margin of Victory (county winner)	0.284	0.118	-0.110
	(0.098)***	(0.155)	(0.163)
ACLED Conflict Fatalities Stock	0.045	0.143	0.096
	(0.017)**	(0.032)***	(0.027)***
R^2	0.10	0.11	0.34
N	2,737	2,934	2,737
Time trend	Yes	Yes	Yes
Control Variables	Yes	Yes	Yes
Region Dummies	Yes	No	Yes
County Fixed Effects	No	Yes	No
Spatial Kernel	None	None	50 KM

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

A2: Aid Commitments & UCDP Conflict Events and Fatalities Stocks

	(OLS)	(OLS)	(OLS-FE)	(OLS-Spatial)	(OLS)	(OLS)	(OLS-FE)	(OLS-Spatial)
UCDP Conflict Stock	0.006	0.003	0.014	0.006				
	(0.001)***	(0.001)**	(0.002)***	(0.003)**				
UCDP Fatalities Stock[a]					0.033	0.020	0.326	0.031
					(0.021)	(0.012)	(0.057)***	(0.020)
R^2	0.14	0.10	0.11	0.33	0.12	0.08	0.09	0.33
N	3,385	2,737	2,934	2,737	3,385	2,737	2,934	2,737
Time Trend	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region Dummies	Yes	Yes	No	Yes	Yes	Yes	No	Yes
County Fixed Effects	No	No	Yes	No	No	No	Yes	No
Spatial Kernel	None	None	None	50 KM	None	None	None	50 KM

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

a: Fatalities stock variable standardized. An increase in one unit is equivalent to an increase of one standard deviation of approximately 150 fatalities.

A3: Aid Commitments & UCDP Annual Conflict

	OLS	OLS	OLS-FE	OLS-Spatial	OLS	OLS	OLS-FE	OLS-Spatial
UCDP Annual Events[L]	0.011	-0.011	-0.012	-0.016				
	(0.008)	(0.008)	(0.009)	(0.015)				
UCDP Annual Fatalities[L]					-0.002	-0.010	-0.012	-0.019
					(0.007)	(0.007)	(0.009)	(0.011)*
R^2	0.12	0.08	0.09	0.33	0.12	0.08	0.09	0.33
N	3,385	2,737	2,934	2,737	3,385	2,737	2,934	2,737
Region Dummies	Yes	Yes	No	Yes	Yes	Yes	No	Yes
County Fixed Effects	No	No	Yes	No	No	No	Yes	No
Spatial Kernel	None	None	None	50 KM	None	None	None	50 KM

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

L: Variable lagged by one year

Figure 7: Aid Disbursements (Before & After Strategic Aid)
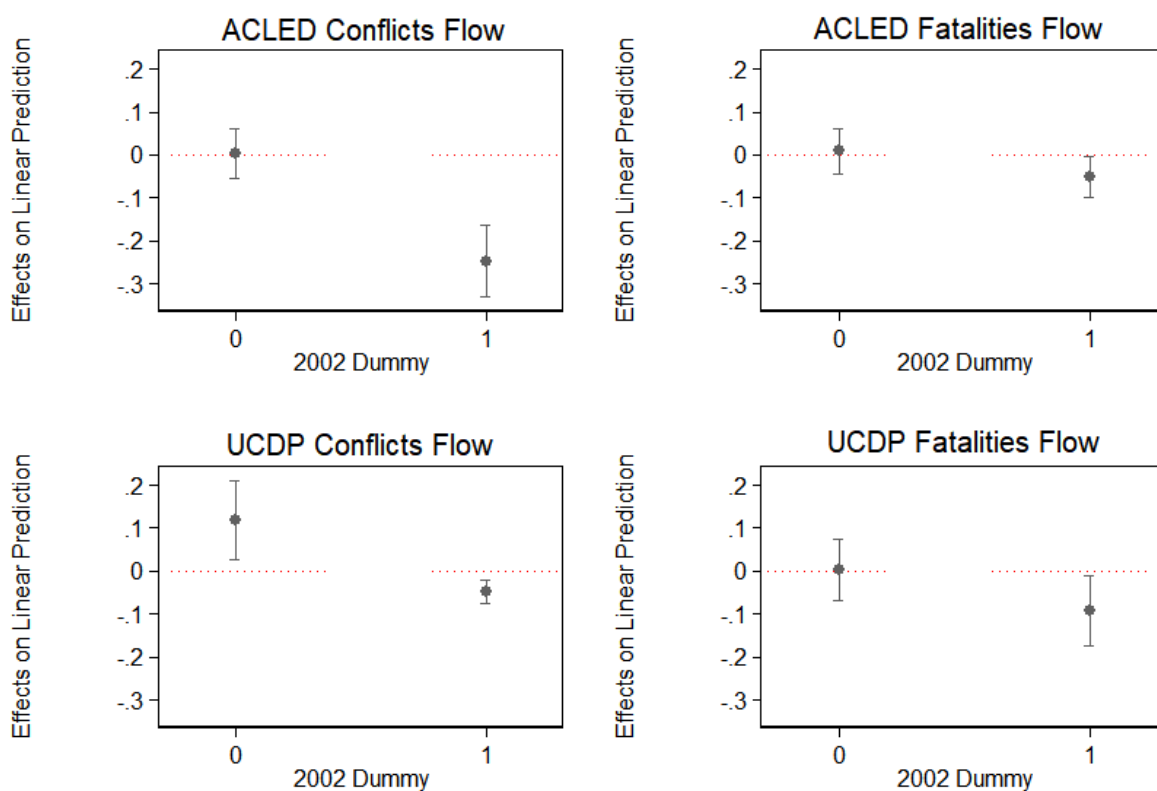
Note: Each plot based on a separate regression model.

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Chapter 5: Conclusion

Post-Conflict Governance & Subnational Violence

1. Introduction

Thus far, this project has attempted to explain and analyze how post-conflict regimes deploy the resources at their disposal—specifically electricity, policing, and aid—to manage the reconstruction process and maintain political control for themselves. The theoretical construct of the "victor's dilemma" is motivated by this idea that governments can use their resources to achieve their goals. In the context of a post-conflict or weak state where violent actors are mobilized, goals for these governments encompass both improving citizens' support and reducing violent threats to their rule. The motivation to use these resources to achieve political goals does not always translate into effectiveness however. In fact, an overemphasis on one dimension of the victor's dilemma—either reconstruction or electoral efforts—may leave the government vulnerable on the other relatively neglected dimension.

In previous chapters, I demonstrate that in the case of Uganda, electricity, police, and aid projects have all been used by the ruling party at some stage to consolidate its political and electoral power since 1986, while the reconstruction of conflict zones has only been prioritized along the foreign aid dimension. However, the reduction of violence and maintenance of peace in a post-conflict country remains a key metric of reconstruction success for both governments and international peacekeepers. I now turn to this important related question: what are the consequences of prioritizing political and electoral strategies of resource distribution for patterns of post-conflict violence? Do increased public goods and security infrastructure provision reduce local violence in an environment of politicized allocation?

This chapter proceeds as follows. First, I briefly discuss the theoretical implications of politicized allocation strategies for patterns of violence. Next, I present the data and research design used to explore this question before discussing the results of the analysis. I then finish the chapter with a broader discussion of the conclusions of the project and its implications for future work.

2. Politicized Resource Allocation and Violence

Are state resources that are targeted for political purposes rather than the reduction of conflict less effective as tools of reconstruction and violence reduction? The targeting logic for the government's deployment of its resources may have an important

influence on the resource's efficacy for reducing violence. There are several important reasons to believe this may be the case. First, political targeting of state resources can change their effectiveness by shifting *how* they are deployed. For example, increased security infrastructure or personnel that is deployed to an opposition constituency for electoral purposes may be oriented towards repression, which may create a backlash of violence. Second, electoral targeting means that goods are systematically targeted at constituencies that do not have underlying needs to reduce violence. For instance, public goods or development aid targeted at swing or core constituencies, often with volatility around electoral cycles, won't reach the areas vulnerable to conflict where they are most needed for preventing future violence. This logic leads to the first hypothesis (H1) below. This "politicized distribution" hypothesis applies most directly to electricity and police infrastructure in Uganda, but also aid disbursements as seen in chapter four.

> **H1 – Politicized Distribution:** Holding all else equal, state resources that are distributed according to a logic of electoral politics will be less effective at reducing violence.

My theory of the "victor's dilemma" suggests that a politicized approach to resource distribution can still be a rational one for the government even when violence persists in concentrated areas. When violent threats are relatively less threatening to government control and costlier to respond to than electoral threats, a government will predominantly pursue electoral targeting strategies to consolidate its power. However, electoral targeting strategies can still lead to an *observed* negative relationship between shifts in state resources and conflict, mainly through a selection effect. Since the post-conflict zones that most need rebuilding are also the most difficult to both secure and develop, government resources will be less efficiently deployed in these areas.[49] The result is part of the explanation for the persistence of violence in post-conflict countries: politicizing distributive resources makes them less effective as tools of reconstruction but is often the most viable, cost-effective strategy for the government to build and maintain its own political power. This logic leads to an alternative hypothesis below:

> **H2 – Easier Targets:** Holding all else equal, state resources that are distributed at low-conflict constituencies will be more effective at reducing violence by focusing on less intractable conflicts.

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[49] See Zürcher (2017) for a systematic review on the causal effect of development aid on violence in post-civil war countries. On the whole, aid is observed to have a violence-dampening effect in areas that are better secured but a violence-increasing effect in areas where aid is misappropriated or sabotaged by violent actors.

Table 1: Resource Allocation Strategies and Post-Conflict Violence Reduction

Strategy	Public Goods & Development	Security	Goal	Effectiveness for Violence
Electoral	Swing and/or core	Opposition	Improve vote share	Less effective
Reconstruction	Conflict zones	Conflict Zones	Reduce violent conflict	More effective

3. Data & Research Design

To study the implications of politicized allocation strategies on violence I estimate a series of zero-inflated negative binomial (ZINB) regressions of the count of violent events on lagged measures of night light, police infrastructure, and aid disbursement. I investigate this relationship for both conflict events and their associated fatalities.

Since the outcomes are countable events, alternative approaches include Poisson, zero-inflated Poisson (ZIP), and negative binomial (NB) regression. The analysis shows significant over-dispersion (*p<0.001*), making NB models more appropriate relative to Poisson. Additionally, the data for violence have significant excess zeros since most county-years do not experience any organized violence. Results of the Vuong (1989) non-nested test comparing ZINB to normal NB models strongly suggest the use of ZINB models. However, Wilson (2015) shows that the Vuong test is inappropriate and widely misused for this purpose. Xu et al (2015) propose an alternative approach in comparing the Akaike Information Criterion (AIC) (Akaike 1974) between ZINB and NB models. The AIC value[50] for the ZINB model (4512.12) is significantly lower than that of the NB model (4650). ZINB models are also useful because they allow for the estimation of two separate processes: the standard relationship between the independent variables and the count of violence, as well as the probability of a county-year being part of the "zero count" group. Therefore, on this basis I use ZINB models for the analysis in this chapter.

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[50] These are the relevant AIC values reported from model 1 (below) using independent variables lagged by one year. The lower AIC value from ZINB models holds across specifications.

Endogeneity and Alternative Approaches

There are significant concerns about reverse causality and endogeneity in this analysis. Indeed, the previous chapters of this dissertation explicitly argued and also demonstrated that government allocations of electricity, policing, and aid have been made with both electoral politics and violent conflict in mind. I therefore consider this analysis to be exploratory.

Still, I take steps to strengthen the analysis in several ways. To help protect against reverse causality, I lag the predictor variables one, two, and three years. To address endogeneity concerns, I control for the factors that were strong predictors of allocations of electricity, police infrastructure, and aid in previous chapters. These control variables include vote share, margin of victory, county population, election timing, distances to Kampala and international borders, and the proportion of the population that shares the ethnicity of the president. Perhaps most importantly, I also control for lagged levels of conflict stocks to attempt to control for the government's expectations about the costs of reducing violence and future levels of conflict. I also include a lagged dependent variable in alternative specifications. Additionally, I include a linear time trend. Still, a lack of exogenous predictor variables is problematic for making causal claims.

Instrumental variables estimation is one potential alternative approach that would allow for more robust estimation of the causal effects of resource distribution on violence (Angrist, Imbens, and Rubin 1996). The problem of course is that valid instruments are difficult to find, and even more so when three are needed to account for sub-national variation (electricity, police infrastructure, and aid). While several possible instruments for electricity and aid have been proposed in their relevant literatures, they all encounter difficulties in meeting the required assumptions for IV regression to recover a local average treatment effect (LATE).

With respect to electricity, for instance, Uganda's reliance on hydropower means that the annual flow of electricity varies with the amount of water available for the generation of supply. Since drought can have significant effects on annual water levels and electricity generation, rainfall is a possible instrument for electricity supply. A rainfall or water-level instrument suffers from several drawbacks however. First, rainfall is thought to influence the incidence of conflict indirectly through income (Miguel et al 2004), as well as directly (Sarsons 2015), and thus likely doesn't meet the exclusion restriction assumption. Separately, using variation in the actual water level of Lake Victoria (Uganda's primary source for hydroelectric generation) is also problematic since non-rainfall related changes in water levels appear to be vulnerable to political maneuvers (see discussion in chapter 2) and therefore is unlikely to be a valid exogenous instrument. Finally, both of these possible instruments are not exogenous to

subnational changes in electricity provision but instead only influence the national level of supply.

One possible instrument in the literature on electrification that varies sub-nationally is local geography. Land gradient has been used to estimate the causal effect of electrification projects on employment (Dinkelman 2011). In the context of employment, this is a valid instrument for the location of electrification projects since it is more expensive to build electricity infrastructure in local areas with steeper land gradients. However, this strategy is again unlikely to meet the exclusion restriction assumption in the context of a study on conflict since the outcome of interest is theorized to have a direct relationship with the proposed instrument (rough terrain) (i.e. Fearon & Latin 2003). Qualitative evidence in Uganda also suggests land gradient would be an invalid instrument since two insurgent groups, the Allied Democratic Forces (ADF) and National Army for the Liberation of Uganda (NALU), adopted the Rwenzori Mountains as their bases for operation and consistently made use of the rough terrain to elude capture during counterinsurgency operations (Titeca & Vlassenroot 2012).

Two potential instruments for aid allocations suffer from similar problems. Donor GDP (de Ree & Nillesen 2009), natural disasters (Jackson 2014), and lending threshold's (Galiani et al 2017) have all been proposed as possible national level instruments for aid changes in aid allocations. These instruments provide blunt tools for subnational analysis however.

4. Results

The results from the primary ZINB regressions are shown in Tables 1 and 2. In Table 1, the upper panel shows the results of the negative binomial model with the count of conflict events as the outcome, while the lower panel shows the results for the logistic regression with a binary outcome of 0 events or at least 1 conflict event (positive coefficients are interpreted as making the outcome more likely to be part of the "zero count" group).

On the whole, the results show that changes in resources have little discernable effect on counts of conflict events. Beginning with the NB models (upper panel, lags 1-3), there are no significant estimates amongst the coefficients for police stations, posts, or aid disbursements. The findings for aid allocations are in line with a broader literature on aid and violence. While aid allocations in Uganda have been less politicized and indeed targeted at conflict areas, police infrastructure has not. Without the consolidation of local security, aid disbursals are unlikely to be effective at reducing violence (Sexton 2016; Zürcher 2017).

Table 1: Resources and Annual Conflict Events (ACLED)

	(Lag 1 year)	(Lag 2 years)	(Lag 3 years)
	(1)	(2)	(3)
Negative Binomial			
Night Light Growth$_{t-L}$	0.053	-0.092	-0.123
	(0.048)	(0.051)*	(0.045)***
Night Light Level$_{t-L}$	0.042	0.096	0.151
	(0.034)	(0.042)**	(0.044)***
Police Station Construction$_{t-L}$	0.086	0.185	-0.217
	(0.286)	(0.542)	(0.480)
Police Post Construction$_{t-L}$	-0.087	-0.043	-0.082
	(0.102)	(0.123)	(0.117)
Aid disbursements$_{t-L}$	-0.005	-0.001	0.103
	(0.005)	(0.007)	(0.110)
Inflation Model (Logit)			
Night Light Growth$_{t-L}$	0.222	-0.019	-0.023
	(0.095)**	(0.109)	(0.108)
Night Light Level$_{t-L}$	-0.207	-0.191	-0.048
	(0.060)***	(0.088)**	(0.088)
Police Station Construction$_{t-L}$	-0.174	1.610	-1.860
	(0.622)	(0.937)*	(2.342)
Police Post Construction$_{t-L}$	-0.750	-0.463	-0.777
	(0.336)**	(0.418)	(0.632)
Aid disbursements$_{t-L}$	-0.016	-0.795	0.049
	(0.020)	(1.413)	(0.042)
N	2,401	2,241	2,080
Control Variables	Yes	Yes	Yes
Lagged Dependent Variable	Yes	Yes	Yes

*$p<0.1$; ** $p<0.05$; *** $p<0.01$*

However, when lagged two and three years, the level of night light does have a significant positive association with conflict, while the annual change has a significant negative relationship. I interpret this to mean that while more brightly lit counties tend to have higher overall levels of conflict, sharp increases in light are associated with decreases in violence. Recall that electricity distribution did not appear to be consistently related to prior levels of conflict stocks or flows, so this is less likely to be an artifact of reverse causality.

Turning to the logistic regression results in the lower panel, the results for night light are somewhat consistent though the effects do not persist for growth beyond a lag

of one year. An increase in light growth at *t-1* increases the odds of observing no violent conflict in the next county-year, though the one year lag has no statistically significant effect on the count outcome in the NB model. Consistent with the NB models, increasing the level of night light also decreases the chances of observing no conflict events.

The estimates for police infrastructure and aid disbursements are once again not distinguishable from zero in most cases. Exceptions include a negative estimate for police posts in model 1 suggesting that building more police posts in a county at t-1 decreases the odds of observing no conflict the next year. Recall that the construction of police posts was positively correlated with past violence in chapter 3, so this estimate is more likely to be an artifact of the government's expectations of future violence. Even if police posts were constructed in harder places to police though, the qualitative evidence discussed in chapter 3 suggests that they were ineffective in reducing crime and, in particular, violent conflict. The estimates for police station construction are very inconsistent as the sign of the coefficient changes across specifications and are thus difficult to draw any conclusions from. Finally, the estimates of aid disbursements are all indistinguishable from zero.

The results of the analysis on annual conflict fatalities using data from ACLED are presented in Table 2 in the appendix. While not identical, they show similar patterns to those in Table 1. However, when using data on violence from UCDP-GED, the effects for night lights disappear (see Table 5), highlighting a lack of robustness in these findings.

5. Conclusions & Future Work

Overall, there is little evidence that county-level resource distribution has had an effect on later patterns of violence in post-war Uganda. This is in stark contrast to the findings of chapters two and three where inter-election increases in electricity and police infrastructure had a large, positive effects on the growth of the incumbent president's vote share. The divergence between these findings underscores some of the key dynamics of Ugandan politics since 1986 as state resources have increasingly been diverted for patronage purposes to consolidate the political control of the NRM, even as multiple insurgencies have threatened civilian populations in the countryside.

More broadly, this dissertation project has important implications for the politics of post-conflict reconstruction and the maintenance of peace, order, and stability. Existing research has shed light on the dynamics of post-conflict reconstruction at the national level (e.g. Collier et al 2004, Zürcher et al 2013, Girod 2015) as well as at the localized program level (e.g. Fearon et al 2009, Humphreys et al 2015). Yet, little research has systematically examined how a central government chooses to strategically

distribute resources at the subnational level of post-conflict countries. This dissertation project has attempted to fill this gap and contribute insights that could not be established with a focus exclusively at the national level of analysis.

My findings indicate that questions of post-conflict distributive politics have important consequences for local incumbent support and the persistence of violence. They also likely have implications for longer-run national stability and development. Expanding patronage politics and politicized security can significantly diminish economic investment and growth. While the political manipulation of public goods and security forces may increase short-run electoral support for the government, it may also increase long-term popular dissatisfaction when it undermines development and economic growth. Combining flagging growth with the persistence of low-level insurgency is a risky environment for post-conflict incumbents even if they have managed to stabilize national politics for the time-being.

Future research in this area should therefore apply insights gained from subnational analysis to the study of longer-term national level outcomes after civil war. For instance, what effect do post-war electoral strategies have on the tenure of post-conflict rulers? When do politicized strategies increase geographic inequality and in turn increase the odds of future large-scale conflict? On the other hand, to what extent does targeting conflict zones with reconstruction spending leave incumbents vulnerable to electoral defeat?

Of course, much has been learned about post-war peace and reconstruction by focusing on the national and international levels of analysis (e.g. Collier & Sambanis 2002; Walter 2004; Matanock 2017). This dissertation both benefits from and is hindered by its focus on subnational variation in a single country. Future examination of a broader set of country cases will allow for further development and testing of the logic of my theoretical argument. Moreover, both international and national factors play an important role in shaping the political and economic constraints that post-conflict rulers face when distributing state security and public goods across their territories. Future research should investigate several key national and international factors in cross-national work, including the role of international interventions, power-sharing agreements, and the timing of elections in conditioning the post-conflict strategies that rulers pursue.

Appendix 4

Table 2: Resources and Annual Conflict Fatalities (ACLED)

	(Lag 1 year)	(Lag 2 years)	(Lag 3 years)
	(4)	(5)	(6)
Negative Binomial			
Night Light Growth$_{t-L}$	-0.137	-0.021	-0.107
	(0.070)*	(0.079)	(0.069)
Night Light Level$_{t-L}$	-0.008	0.009	0.025
	(0.050)	(0.058)	(0.765)
Police Station Construction$_{t-L}$	-0.879	0.537	0.025
	(0.507)*	(0.918)	(0.765)
Police Post Construction$_{t-L}$	-0.300	-0.539	-0.395
	(0.177)*	(0.262)**	(0.218)*
Aid disbursements$_{t-L}$	-0.267	-0.005	-0.382
	(0.118)**	(0.009)	(0.640)
Inflation Model (Logit)			
Night Light Growth$_{t-L}$	0.088	0.076	-0.054
	(0.074)	(0.077)	(0.074)
Night Light Level$_{t-L}$	-0.123	-0.157	-0.136
	(0.045)***	(0.051)***	(0.051)***
Police Station Construction$_{t-L}$	-0.123	1.190	0.250
	(0.561)	(0.759)	(0.648)
Police Post Construction$_{t-L}$	-0.507	-0.226	-0.534
	(0.217)**	(0.293)	(0.276)*
Aid disbursements$_{t-L}$	-0.120	-0.176	0.076
	(0.157)	(0.123)	(0.623)
N	2,401	2,241	2,080
Control Variables	Yes	Yes	Yes
Lagged Dependent Variable	Yes	Yes	Yes

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

Table 3: Resources and Annual Conflict Events (UCDP)

	(Lag 1 year)	(Lag 2 years)	(Lag 3 years)
Negative Binomial Only	(7)	(8)	(9)
Night Light Growth$_{t-L}$	0.095	-0.081	-0.085
	(0.097)	(0.066)	(0.073)
Night Light Level$_{t-L}$	0.056	0.048	0.096
	(0.058)	(0.061)	(0.062)
Police Station Construction$_{t-L}$	-1.278	-0.129	-1.056
	(0.373)***	(0.388)	(0.444)**
Police Post Construction$_{t-L}$	-0.321	-0.820	-0.184
	(0.256)	(0.229)***	(0.310)
Aid disbursements$_{t-L}$	-0.006	-1.068	-1.469
	(0.021)	(0.586)*	(0.702)**
Baseline Police Stations	-0.383	-0.213	-0.318
	(0.341)	(0.334)	(0.321)
Baseline Police Posts	0.024	0.011	0.020
	(0.080)	(0.083)	(0.085)
Museveni Vote Share	-0.718	-0.684	-0.776
	(0.554)	(0.582)	(0.555)
Margin of Victory (winner)	2.888	2.925	3.056
	(0.598)***	(0.617)***	(0.625)***
N	2,401	2,402	2,402
Control Variables	Yes	Yes	Yes
Lagged Dependent Variable	Yes	Yes	Yes

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Table 4: Resources and Conflict Events with Lagged Stocks (ACLED)

	(Lag 1 year)	(Lag 2 years)	(Lag 3 years)
	(10)	(11)	(12)
Negative Binomial			
Night Light Growth$_{t-L}$	-0.000	-0.086	-0.138
	(0.049)	(0.051)*	(0.045)***
Night Light Level$_{t-L}$	0.115	0.134	0.180
	(0.034)***	(0.037)***	(0.040)***
Police Station Construction$_{t-L}$	-0.056	-0.159	-0.005
	(0.285)	(0.417)	(0.440)
Police Post Construction$_{t-L}$	0.002	0.008	-0.051
	(0.104)	(0.120)	(0.114)
Aid disbursements$_{t-L}$	-0.002	0.001	0.126
	(0.007)	(0.007)	(0.133)
Inflation Model (Logit)			
Night Light Growth$_{t-L}$	0.182	-0.023	-0.067
	(0.119)	(0.110)	(0.119)
Night Light Level$_{t-L}$	-0.096	0.388	0.034
	(0.060)	(0.972)	(0.090)
Police Station Construction$_{t-L}$	-0.598	-0.266	-0.941
	(0.843)	(0.402)	(1.584)
Police Post Construction$_{t-L}$	-0.970	-0.239	-1.832
	(0.446)**	(0.326)	(2.012)
Aid disbursements$_{t-L}$	-0.000	-0.071	0.195
	(0.014)	(0.066)	(0.298)
N	2,401	2,241	2,080
Control Variables	Yes	Yes	Yes
Lagged Conflict Stock	Yes	Yes	Yes
Lagged Dependent Variable	No	No	No

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

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Table 5: Resources and Conflict Events with Lagged Stocks (UCDP)

	(Lag 1 year)	(Lag 2 years)	(Lag 3 years)
	(13)	(14)	(15)
Negative Binomial			
Night Light Growth$_{t-L}$	0.128	-0.034	-0.058
	(0.067)*	(0.057)	(0.058)
Night Light Level$_{t-L}$	0.024	-0.018	0.072
	(0.060)	(0.061)	(0.074)
Police Station Construction$_{t-L}$	-0.121	0.797	0.021
	(0.779)	(0.753)	(0.776)
Police Post Construction$_{t-L}$	0.258	-0.389	-0.193
	(0.399)	(0.399)	(0.439)
Aid disbursements$_{t-L}$	-0.201	-0.548	-2.246
	(0.111)*	(1.333)	(1.429)
Inflation Model (Logit)			
Night Light Growth$_{t-L}$	0.251	0.040	-0.003
	(0.211)	(0.143)	(0.012)
Night Light Level$_{t-L}$	-0.010	-0.059	0.203
	(0.110)	(0.101)	(1.348)
Police Station Construction$_{t-L}$	1.157	1.444	0.295
	(1.281)	(1.155)	(0.490)
Police Post Construction$_{t-L}$	1.159	0.584	0.685
	(0.465)**	(0.424)	(1.298)
Aid disbursements$_{t-L}$	-0.556	1.310	0.019
	(0.143)***	(1.048)	(0.119)
N	2,723	2,724	2,724
Control Variables	Yes	Yes	Yes
Lagged Conflict Stock	Yes	Yes	Yes
Lagged Dependent Variable	No	No	No

*$p<0.1$; ** $p<0.05$; *** $p<0.01$

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