Paper-Pusher or President's Guard? State Work and Contentious Action in Syria's Revolution

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Abstract

How does work for the state shape protest against authoritarian regimes? Autocrats can manipulate how both repressive and conventional state workers are selected, compensated and surveilled in ways that strengthen their regime's hold on power. But because autocrats prioritize control of their repressive staff, we should expect employment in the repressive apparatus to more directly undermine protest occurrence. To examine this argument, I pair interviews with state personnel and new data on geolocated security installations with existing data on public employment and Syria's 2011 protest movement. I show that high levels of public employment were associated with limited protest only in communities near security installations, where employees were more likely to be repressive staff especially unlikely to engage in or support local collective disobedience. Further from installations, high levels of public employment reflected civilian employment and were not associated with limited protest. The results point to a novel channel through which effective control of the repressive apparatus can influence autocratic resilience to protest movements and motivate further attention to when civilian employment generates compliance.

1 Introduction

How does work for the state shape protest against authoritarian regimes? Autocrats can strengthen their hold on power by carefully managing the distribution of jobs working for the state. To do so, they often spend significant resources and develop intensive surveillance practices to ensure the obedience of those they hire to work in the repressive apparatus (Greitens 2016; Svolik 2012). Regimes frequently also distribute jobs in the conventional state workforce as part of strategies to reinforce their bases of support or to enmesh key populations in patterns of coercive dependence (Albertus, Fenner, and Slater 2018). As a result, state workers are often viewed as highly supportive of or dependent on the party in power, and so especially unlikely to participate in anti-regime protest (Bellin 2002; Rosenfeld 2017; Rosenfeld 2020).

But the strength of the bonds created by coercive distribution likely differ not only across regimes but across types of state work. Autocrats task members of their repressive apparatus with undermining political opposition and managing unrest, functions that existing scholarship suggest are at the very heart of regime survival (Greitens 2016; Svolik 2012; Hassan 2017). For this reason, regimes go to great effort to ensure the obedience of their repressive personnel: they often seek to select intrinsically loyal individuals, grant them additional economic benefits and design institutions in order to explicitly manage the threat of defection. Those who staff civilian jobs, by contrast, are less central to regime durability. While conventional state work remains an attractive and sought after economic benefit, these civil servants may receive comparatively fewer economic benefits and face lower levels of direct monitoring than those employed in the repressive apparatus.

Outside of contentious periods, differences in the strength of these bonds are unlikely to influence observable political behavior; employees of both the repressive apparatus and the conventional civil service should be expected to behave similarly when a regime is firmly entrenched and all actors have incentives to display loyalty and act obediently (Kuran 1989). But when unrest threatens regime survival, we might expect their behavior to diverge. When protest movements emerge, civil servants should have weaker ties to incumbents than staffers of the repressive apparatus and likely face fewer barriers to engage in contentious action. By contrast, employees of the repressive apparatus who are more heavily screened for loyalty and who face greater monitoring should be less likely to provide support for emergent protest movements. When protest cascades emerge, these differences can influence the geography of local protest, as communities home to many members of the repressive establishment should be especially unlikely to stage protest that signals broader support for the emergent movements.

This article develops and tests this argument through an examination of protest activity in Syria in 2011. Former Syrian President Bashar Al Assad's father Hafez rose to power through the country's military, installing many co-ethnic loyalists in key positions overseeing a Sunni-majority rank-and-file (Seale 1989). Once in power, Bashar Al Assad maintained his father's careful manipulation of this coercive system, deploying extensive resources to select loyal personnel, compensate them, and routinely monitor their behavior. While the state was also a large employer, conventional public employees had an easier time accessing employment, received more limited access to economic benefits, and faced lower levels of monitoring and surveillance than those in repressive jobs. As a result, conventional employment in Al-Assad's state was less likely than employment in the regime's repressive apparatus

to either reflect pro-government loyalty or reinforce pro-government obedience during contentious episodes, with ramifications for the geography of the 2011 protest movement.

While localized data on the breakdown of employment type — civilian or repressive — is non-existent in the Syrian case, I introduce a novel dataset of geo-located security installations to examine the relationship between different types of state work and protest. I draw from interviews with state personnel, secondary sources, and a close reading of census data to show that public employees enumerated near installations are much more likely to be professional repressive personnel, whereas public employees in towns far from installations are more likely to be conventional civil servants. I combine data on these installations with a dataset compiled by Khaddour and Mazur (2018) and Mazur (2019) that includes data from Syria's most recent census, town-level ethnicity measures, the district-level presence of a security installation, and protests in Syria in 2011. Following Mazur, I examine variation in protest occurrence in the towns home to Syria's majority Sunni community, which hosted the vast majority of protests in 2011.

Overall, I find that towns with higher levels of public employment are associated with lower levels of protest — but that this relationship only holds in towns close to installations. Towns with high levels of public employment far from installations see similar levels of protest as other towns across Syria, and actually display higher levels of protest in some models. I argue that this contingent relationship between public employment, security installations, and protest reflects aggregate differences in the types of state workers in these communities. Near installations, public employees are more likely to be members of the repressive apparatus most tightly connected to the incumbent regime and most likely to dampen protest. Far from installations, public employees are more likely to be conventional civil servants whose

political behaviors more closely mirror the rest of the population staging and joining the emergent protests that sustain the contentious wave.

After presenting these results, I combine evidence from thirty qualitative interviews and secondary sources to detail how different forms of state work related to town-level protest in 2011. Addressing ecological problems common in the study of protest, I use a nested research design to conduct case studies in two pairs of towns near to and far from security installations to illustrate how the differential presence of conventional and repressive state workers, as well as their diverse attitudes and behaviors, influenced community protest. Interviews with Syrians who worked in civilian and military jobs in these communities show that civil servants faced lower barriers to supporting or participating in the unfolding public collective protests and had far fewer incentives to police the behavior of their family members or neighbors. For even the most internally disaffected repressive staffers, by contrast, the logics of surveillance led them to engage in behaviors that discouraged local protest. Finally, I engage with but find little evidence of a plausible alternative mechanism for the quantitative relationship. There is little evidence that actual violence from security installations, or the anticipation of violence, selectively impacts only public servants near these institutions in ways that would explain dampened protest exclusively in towns neighboring security installations with high levels of public employment.

This paper makes several contributions to our understanding of contentious and autocratic politics. Extensive research underscores how coercive apparatuses underpin autocrats' resilience amid mass challenge (Bellin 2004; Bellin 2012; Barany 2016; Grewal 2023), often by shaping protesters' expectations or actively suppressing protest (eg, Arriola (2013) and Cebul and Grewal (2022)). By conceptualizing repressive personnel as a large social con-

stituency that render some communities unlikely to stage the local protests that make up revolutionary waves, I point to a distinct avenue through which coercive personnel influence regime stability. I further highlight how the use of census data and official statistics to measure the state workforce can obscure important distinctions between conventional and repressive employees.

In doing so, I motivate further attention to when civilian state employment generates compliance (Rosenfeld 2020), especially once credible protest movements begin. While autocrats can use state work as part of distributive or network-based strategies to deepen control (Albertus, Fenner, and Slater 2018; Mazur 2019), they often use different strategies to select, compensate, and monitor personnel across the repressive-civilian divide - such that civil servants' political attitudes and behaviors more closely reflect the general population during revolutionary episodes. Scrutinizing the Syrian case, I suggest that well-established, highly coercive regimes may be especially likely to struggle to distribute civil service employment to effectively reward or reinforce political loyalties without the observable competition that more open regimes often use to calibrate distributive strategies (Lust 2006; Magaloni 2006; Blaydes 2010).

Finally, this research contributes to our understanding of the outbreak of one of the world's most violent modern conflicts. Touched off by regional protests, scholars have observed that Syria's protest movement differed from others in neighboring countries given the weaknesses of pre-existing organizations (Pearlman 2021). In particular, scholars have remarked upon the Syrian military's survival through the first year of protests with no unit-level, collective defections – despite waves of individual defection (Albrecht and Ohl 2016). I reinforce this perspective by underscoring how Syria's high levels of repression and the

absence of observable political competition also limited the ties between tools of authoritarian control relevant in other cases - in this case, conventional civilian employment - and observed political behavior once the revolution began. Underscoring the influence of the repressive apparatus on the geography of protests themselves, this finding echoes extensive qualitative research emphasizing the resilience of the repressive apparatus in sustaining Al Assad through a decade of conflict.

2 De-Composing "State Work" in Authoritarian Regimes

Considering the role of state workers in protest, I draw a theoretical distinction between state workers who staff the repressive apparatus and those who work in the civil service. I include among the repressive apparatus the staff of the military, intelligence agencies, and secret police. Conventional civil service personnel are those who staff the bureaucracy and frontline roles as teachers, healthcare workers, bureaucrats, tax collectors, and others. While both categories of personnel are formally state workers, regimes often deploy different logics in selecting, monitoring, and compensating personnel across this distinction.

A massive body of scholarship examines how autocrats design their repressive apparatuses so that the individuals staffing these institutions remain obedient and willing to defend against internal mass mobilization and external threats without developing the capacity to launch a coup (Svolik 2012; Greitens 2016; Grewal 2023). In general, autocrats seeking to ensure the obedience of their repressive apparatus deploy a range of strategies, from selecting personnel based on personal or identity ties, to instituting high levels of monitoring within and fragmentation across institutions, and to distributing material incentives that ensure economic dependence.

Autocrats in ethnic minority regimes, like the one studied here, often opt to install insiders at the upper-echelons of their repressive institutions, who then select and monitor personnel from outside of their inner-circle or ethnic group (Roessler 2016; McLauchlin 2010; Albrecht and Ohl 2016; Bou Nassif 2015a). In addition to installing these hierarchies within institutions, autocrats can also rotate non co-ethnic officers (Hassan 2017) and create parallel institutions that openly monitor and compete with one another (Quinlivan 1999; Greitens 2016), such that disaffected individuals confront extreme risks even in considering defection (Koehler, Ohl, and Albrecht 2016). Together, these hierarchical and horizontal strategies render any collective disobedience from disaffected individuals extremely challenging.

Beyond these selection and surveillance strategies, autocrats also use economic incentives to co-opt members of their repressive apparatus. For instance, regimes often provide more expansive welfare to members of their security services than to other groups (Baylouny 2008), grant them opportunities to open protected businesses (Izadi 2022), and protect their corporate interests (Acemoglu, Ticchi, and Vindigni 2010; Grewal 2023) - rendering them economically dependent and so resistant to reform (Bellin 2012).

Conventional, civil service work for the state is also often thought to reflect or reshape an individual's loyalty and behavior toward incumbent regimes. Autocrats can and do leverage their control of the state to hire loyalists or co-opt would-be opponents, monitor their workforce, and render them economically dependent on the incumbent (Rosenfeld 2017; Rosenfeld 2020). When they effectively use state work to do so, autocrats can successfully deepen their resilience by demobilizing "a large segment of the urban middle class during anti-regime protests" (Rosenfeld 2017, p. 640). In a complementary framing, regimes can use state work to generate important linkages of coercion and "selective disincentives" that

can ensure quiescence (Mazur 2019, pp. 995, 1018).

But civil servants who perform key state tasks like teaching, providing healthcare, collecting taxes, or implementing economic reforms remain less critical to autocratic survival than those in the repressive apparatus. As a result, autocrats often expend comparatively fewer resources when selecting, monitoring, and compensating their civil servants. Regimes often install less stringent security criteria when selecting personnel to fill these roles, expend fewer resources monitoring their underlying loyalty, and are less likely to shower them with economic benefits. For instance, while autocrats often task some repressive personnel with directly monitoring individual institutions in the coercive apparatus, monitoring the behavior of colleagues is ancillary to the services that tax collectors, educators, and low-level bureaucrats perform for the state.

Civil servants' ties to autocrats may be especially weak when protest movements emerge in highly repressive settings, as in the case studied below. Many studies of civil servants' political behavior come from autocracies who use minimally competitive elections to observe loyalty in order to update their patronage strategies (Lust 2006; Blaydes 2010). Other studies examine cases where protest movements do not yet pose a credible threat to regime survival (Rosenfeld 2017). In highly repressive regimes lacking any organized opposition, those seeking work for the state have strong incentives to falsify their preferences (Kuran 1989). Indeed, recent research suggests government employees are among the actors most likely to engage in preference falsification in authoritarian regimes (Truex and Tavana 2019).

State Work and Local Protest During Revolutionary Waves: These selection, monitoring and compensation realities constitute a bundle of mechanisms influencing conventional and repressive staffers behaviors once a revolutionary cascade provokes sudden shifts

in individual and collective behavior (Kuran 1989). While existing studies more commonly conceptualize civilian state workers as members of social constituencies (Mazur 2019; Rosenfeld 2020), coercive state workers are often implicitly theorized through the prism of whether their institutions serve as effective or ineffective national instruments of regime resilience. This study focuses instead on how both of these forms of state work contribute to levels of protest in the towns home to repressive or civilian personnel. Amid revolutionary cascades against autocratic regimes, individual protests signal support for the ongoing movement and facilitate broadened participation (Kuran 1989; Chenoweth 2011; Beissinger 2013), furthering movement success by increasing pressure on and undermining elite bases of support for the incumbent.

The theory outlined above suggests that towns where high number of individuals are employed in the repressive apparatus should be especially unlikely to stage communal protest. Selection, material, and surveillance mechanisms render it exceptionally challenging for security personnel to provide support for or directly engage in staging public, collective disobedience through protest. Where the incumbent's surveillance practices are minimally effective, those who face more intensive screenings for loyalty and higher barriers to accessing their employment in the first place should be less likely to ideologically support protests. Beyond these selection mechanisms, material co-optation and intensive surveillance also incentivize security personnel to discourage, police, or intervene with family or community members who might participate. Even where distancing themselves ideologically from the regime, security personnel face very steep barriers to provide even covert support for unfolding collective action, given intensive monitoring from their peers. Instead, disaffected individuals may engage in individualized, non-public strategies like shirking protest policing or plotting

their own defection. Those strategies undermine the likelihood that they or their neighbors will stage localized protests - amid the unfolding protest movement, their towns will not signal support for ongoing mobilization through protest.

By contrast, towns with high levels of individuals employed as civil servants should more closely resemble the broader society in their engagement with the protest wave, as civil servants themselves more closely resemble the broader population in how they are tied to and monitored by the incumbent. Facing less rigorous pre-employment screening of their loyalty, receiving fewer co-optative benefits, and confronting less stringent surveillance in schools, hospitals, and government ministries than counterparts in security installations, these individuals may adopt more diverse responses in opposing, providing support, or directly engaging in protest. Their own employment is less likely to dampen participation from their family or community members, as those family members' participation is less likely to put their own employment or personal safety at risk. Civil servants who are disaffected toward the incumbent face fewer barriers to joining or providing support for the emergent protest movement. Unlike towns with high levels of repressive employment, towns with high levels of civil service employment should not feature dampened protest occurrence. Taken together, these realities can influence the broad, sub-national distribution of protest movements.

3 State Work in Pre-Revolution Syria

I explore how state work in the repressive apparatus and civil service shaped variation in town-level protest during Syria's 2011 revolution against Bashar Al Assad's regime.[1] Scholars studying Syria prior to 2011 have remarked on the Al Assad regime's remarkable repressive

reach (Wedeen 1999) and the ethnic linkages between the high-level security personnel in its ruling clique (Batatu 1981). Ascending to power in 2000, Bashar Al Assad inherited from his father, Hafez, a robust, ethnically-stacked and fragmented repressive apparatus (Batatu 1981; Seale 1989). Reshuffling some of his own insiders into key positions, Syria's repressive apparatus as of 2011 included conventional armed forces organized whose unit heads directly reported to Al Assad, a closely aligned Republican Guard responsible for the president's personal security, and overlapping intelligence agencies including Military Intelligence, Air Force Intelligence, the Political Security Directorate, and the General Security Directorate (Holliday 2013). Even as inner-circle regime elites staffed the upper-echelons of most units, Syria's professional and rank-and-file military employed individuals from across the country's population, including the Sunni majority (Bou Nassif 2015a; Koehler, Ohl, and Albrecht 2016).

Though precise estimates of the size of the repressive apparatus are unavailable, the International Institute for Strategic Studies estimated that the regime employed approximately 400,000 across these units in 2010. According to those estimates, Syria's military employed 8% of the total labor force, or approximately 25% of all government employees - the fourth highest ratio globally.[2] Some of these individuals would have been conscripts, while the remaining would have been part of the career, non-conscripted military, spending decades in service at the Ministry of Defence. After expansive redistribution in the early Ba'athist era (Heydemann 1999), the rest of the state remained a major employer, with Syrian ministries employing 1.1 million of the 5.05 million in the workforce as of 2011.[3]As of the 2004 census, the majority of these employees worked in ministries providing frontline services like education, health, transport, and local administration (Ovensen and Sletten

2007, pp. 37–39).

All of these personnel operated in a sharply repressive environment that limited almost all forms of political expression. Decades after the dismantling of the Muslim Brotherhood's armed insurgency in the early 1980s, associational life was so limited that certain jokes constituted boundary-pushing political behavior (Wedeen 1999). Elections featured no party competition – Bashar Al Assad won 99.82% of the 2007 presidential vote. In this context, interviewees highlight stark differences in the backgrounds, experiences, and views of those serving in repressive and civilian jobs.

Selection, Compensation and Monitoring in the Syrian Repressive Apparatus: For Syria's Sunni population, military and repressive careers remained highly sought after if difficult to attain. Individuals from outside of the Alawite community often needed family intervention, impeccably clean security records, and a record of participation in the regime's Ba'ath Party in order to access military careers. As one Sunni officer from the southern city of Deraa explained, "the number of applicants was in the thousands, and the number of accepted was in the dozens. Without *wasta* from my uncle [in the intelligence services], it would have been very difficult to get this job."[4] A Sunni officer from Damascus echoed the importance of family ties in securing career military employment: "My father's military service planted the idea in me to advance and gave me advice on how to go about it. ... For a limited number of seats in my university, you might have thousands of Sunni applicants annually. It was only my background that got me in."[5]

Security and military personnel also received targeted economic goods, including access to subsidized housing and favorable loans, while some parts of the military had corporate interests in smuggling, construction, and farming (Haddad 2011). Military and security

careers also provided opportunities to receive income through procurement and the soliciting of bribes, and positioned individuals to serve as key community interlocutors.[6] In Khaddour (2015)'s words, Syrian army officers had "access to a benefits system that links nearly every aspect of their professional and personal lives to the regime," a status quo that "places them in an antagonistic relationship with the rest of society."

Beyond these benefits, repressive personnel also experienced intensive and constant monitoring that constrained the behaviors of even those pre-disposed to support protests. Each military facility had long had a staffer whose job was to surveill their colleagues, reporting to the intelligence branch.[7] Whereas conventional civil servants often sought jobs only commutable from their family homes, military personnel often lived in subsidized housing that created a closed social network, reinforcing their sense of surveillance.[8]

Selection, Compensation, and Monitoring of Conventional Civil Servants: Jobs in the civil service also remained highly valuable and relatively difficult to attain, especially in the Sunni majority communities that are the center of this analysis. But in general, civil servants confronted far less stringent monitoring processes when applying for their jobs, experienced less intensive daily monitoring of their loyalty, and received fewer targeted economic benefits, such that their ties to the Al Assad regime were weaker than those of individuals in the repressive apparatus.

In the large education and health ministries, many graduates of state run institutes were *required* to perform a certain number of years of public service in order to fill shortages in the public sector.[9] State employees often needed to present a clean "political report" to access their jobs, which entailed routine bribes to security officials to remove something like an uncle's arrest twenty years earlier from their file. With the regime imprisoning tens

of thousands, many of the conventional civil servants interviewed reported that at least some family members had faced detention or imprisonment by the regime prior to 2011 – family linkages that would have disqualified them from careers in the the military or security forces.[10]

These jobs remained economically attractive, especially in rural areas. A nurse from Idlib who later joined protests described pursuing work as "the best way to get your slice of bread."[11] State work provided a pension and stability, even if conventional civil servants more rarely accessed prized goods like subsidized housing and regularly worked second jobs. Unlike senior security personnel, civil servants were less likely to serve as intermediaries capable of using their connections to intercede on community members' behalf; they isntead described paying bribes or soliciting security personnel to intervene on their behalf.[12]

State employees experienced monitoring throughout their employment, both informally and through an annual security review.[13] However, the regime expended fewer resources to surveilling each institution, falling well short of staffing an officer in each building. Echoing common narratives, interviewees detailed how intense mistrust influenced most relationships, including at work. A teacher from Idlib who later supported protests explained,

> "You know what everyone said – the walls had ears. I knew of course as a child, my father very much hated Hafez Al Assad. But it's not something you would sit around and talk about. We were used to it, continuing on with our lives, the world was turning. ... In the school, each year there would be a security report, and it made sense to be quiet and keep walking. But I felt assured in terms of the colleagues next to me. [I didn't stick my neck out], and we didn't expose each other to anything (Interview 21, Former Teacher, Rural Idlib - Northeast, Female).

A doctor emphasized similar sentiments, "Of course, witnessing this daily harassment created a degree of internal hatred toward the regime, but not one that I spent all of my time thinking about every day. I would work my shifts at the hospital, run my clinic in the afternoons, and

refrain from any intervention in politics that could cause problems."[14] A more politically active teacher who had previously faced security sanctioning emphasized how surveillance differed by school:

> It all really depended on the school itself... In some schools, there would be colleagues who I felt were closer to security, or maybe even were writing reports... But there were other schools I taught in where there was a fantastic environment...and we were like a family, [like] the last school that I was teaching in when the revolution began.- Interview 24, Former Teacher, Idlib (Kafr Nabl)

Taken together, these differences in selection processes, compensation realities, and daily monitoring meant that civil servants would have faced fewer obstacles to defection during a protest movement when compared with members of the repressive apparatus. Whereas personnel employed in the repressive apparatuses often faced very high levels of monitoring in hierarchical security establishments run by the president's close allies or even immediate family members, civil servants were more likely to work in their immediate communities and were unlikely to work in establishments explicitly designed to surveil their political behaviors. Instead, conventional civil servants would have more closely resembled a broadly quiescent population: demobilized but not as tightly co-opted into the regime as its security personnel.

4 Analyzing State Work and Syria's Protest Movement

I evaluate how these differences across forms of state work shape communal protest occurrence through a sub-national analysis of Syria's 2011 protest movement. Beginning as revolutionary protest waves toppled incumbents in Egypt and Tunisia, Syrian protests accelerated in March 2011 following the arrest and torture of several children who had sprayed anti-regime graffiti in the southern city of Deraa. I begin with data developed in Khaddour and Mazur (2018) and Mazur (2019) on the protest movement, Syria's ethnic geography, repressive apparatus and most recent census, conducted in 2004. I then introduce

fine-grained geo-spatial data on security installations in pre-conflict Syria, before describing an empirical strategy using multivariate regressions to assess the theory.

As first introduced above, I subsequently draw on thirty qualitative interviews with state workers and Syrians who experienced the revolution to trace the mechanisms underpinning the quantitative results. Using town-level case studies, I aim to address the ecological inference problem inherent in the study of town-level event data. In line with processes of inductive iteration, I first conducted interviews in-person and remotely with Syrians in 2019 through 2021 to develop intuition around state workers' non-compliance with regime authority during the 2011 protest movement, as well as insights around working with census data (Yom 2015). I subsequently conducted fifteen semi-structured interviews with individuals employed by the Syrian state in 2011 to more concretely describe differences in selection, compensation, and monitoring of repressive and civil servant personnel, as well as to provide insight into how state work shaped political behaviors at the outset of the protest movement. Additional details on interview methods are available in Appendix A.1.

4.1 Existing Data on the Drivers of Syria's Protest Movement

Khaddour and Mazur (2018) and Mazur (2019) bridge protest activity in Syria from February through December 2011 with data from Syria's 2004 census and qualitatively-coded values capturing ethnic geography and the local presence of Syria's repressive apparatus.[15] The unit of observation for most variables in the dataset is at the town level (n = 5,204), while some variables are aggregated to the sub-district (n = 266).

I rely on this data for the paper's dependent variable – 973 protests in Syria's towns between February and December 2011. The protest data is coded from three English and

Arabic-language news sites. The dataset also construct a variable of the majority religious, ethnic, and tribal identities of Syria's towns, hiring a team of research assistants with knowledge of Syria's different regions to manually code each of Syria's 5,204 towns. The dataset categorizes towns as majority comprised of *Alawi, Other Minorities,* and demarcates Sunni communities between the *Kurdish* ethnicity, *Badawi* Arab tribal populations, and non-Bedouin *Sunni family* communities. It also includes one variable for ethnically mixed towns, *Alawi-Sunni Mix,* acknowledging heterogeneity especially in major cities and provincial capitals like Damascus and Aleppo.

The data contains relevant variables that I use to construct elements of my independent variable. This includes the *Government Worker* variable, which tabulates the percentage of public employees among members of the workforce in any given town. The data also includes a binary coding of the presence of a "major security or military facility" at the sub-district level. I refer to this as the *Sub-District - Mazur* variable. I also use this data to code control variables for relative socio-economic development, like *Primary School Enrollment* and *Secondary School Enrollment* and the percentage of a town with access to state-run electricity, *Percent Electric*. The dataset also includes a town's *Total* and *Logged Population* - reflecting the opportunity to protest - as well as the *Log Distance* to governorate provincial capital, which Mazur (2019, p. 1014) includes as a partial measure of state repressive capacity.

Table 1 summarizes key relationships in this data. The first two rows reinforce existing scholarship that Alawi-majority towns feature substantially higher levels of census-tabulated public employment. 60% of the workforce in Alawi towns are tabulated as working in the public sector, compared with 20% in Sunni towns. The bottom rows of the table show that large cities are more likely to host security installations, which I discuss in detail below. The

third and fourth rows confirm that protests were far more common in Sunni towns: 897 protests occurred in majority Sunni Arab towns (92% of total protests), compared to just 5 in majority Alawi towns (0.5% of total protests). However, protests still remained rare even across Sunni towns: the modal Sunni community staged 0 protests over this period, while the city of Homs staged 115.

	N	Mean	St. Dev
Public Employment %, Alawi Towns	1,086	0.60	0.26
Public Employment %, Sunni Towns	2,656	0.20	0.20
2011 Protests, Alawi Towns	1,086	0.01	0.10
2011 Protests, Sunni Towns	2,656	0.34	3.38
Population, Sunni Towns	2,656	5,151	53,031
Population Sunni Towns, Town - Nearest 4	527	16,838	117,757
Population Sunni Towns, Not in Town - Nearest 4	2,129	2,259	6,247
Population Sunni Towns, In District - Mazur	1,598	7,105	68,229
Population Sunni Towns, Not in District - Mazur	1,058	2,201	4,017

Table 1: Summary Statistics of Ethnicity, Public Employment, Protests, and Proximity to Military Installations

4.2 New Data on Syria's Pre-Conflict Repressive Apparatus

To study how repressive and state work explained variation in Sunni towns' protests against Assad, I supplement this data with finer-grained information on the location of major security installations. To build this dataset, I collected data from a crowdsourced map of the Syrian conflict produced by Wikipedia users, including categories like major population centers, oil facilities, and sites of civil war violence. From this crowdsourced data, I extracted locations that reflect the physical presence of the Syrian security apparatus, tagged as "Military," "Airports," "Heliports," "Naval" Bases, or "Border."[16] The dataset contains a wide variety of military installations, like the Qusayr Airbase in Homs, the 9th Army Division in Deraa, and major border crossings, as well as facilities like the Aleppo Central Prison and

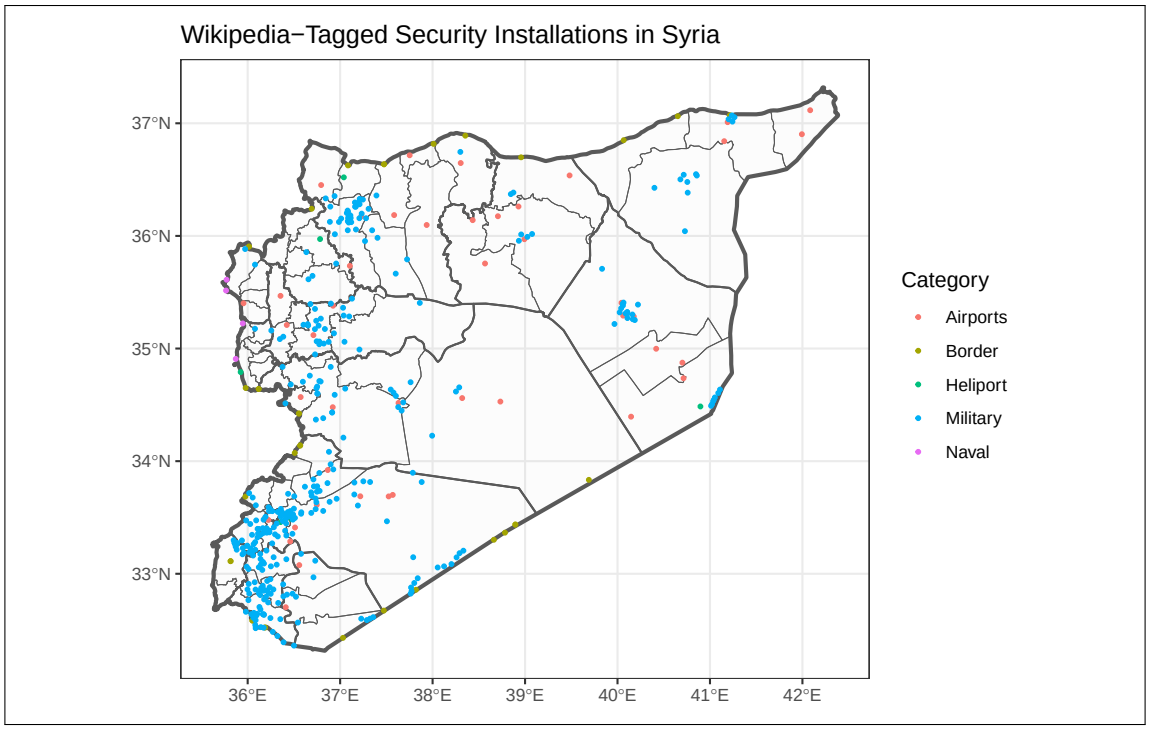

Figure 1: *Source: Wikipedia Syrian Civil War Detailed Map.* Geo-locations of security installations produced by Wikipedia users. I remove installations constructed after the outset of hostilities and those in depopulated places.

the military factories in the Dimas Housing Complex. I manually reviewed each installation to remove those installations constructed after 2011. The resulting dataset contains 432 installations as latitude-longitude points, visualized in Figure 1.

I use this crowdsourced data to code an alternate, and more precise, specification of security presence. I first used a variable locating installations within the sub-district boundaries, which I refer to as the *Open Source District* variable. The dataset identifies security installations in 109 districts compared with Mazur's 128. It accords with Mazur's hand-coded dataset in 66% of the 199 districts with Sunni towns, with the primary difference in that it is more conservative in identifying sub-district intelligence headquarters.[17] I then used several methods to capture town proximity to the installations, which are both measured as latitude-longitude points. The primary analyses below uses a measure of whether a

town is both within the *Nearest 4* towns to a military installation,[18] as well as a measure of whether a town is approximately *Within 5 Kilometers*, or 0.05 metric degrees, of a military installation. Capturing multiple communities per installation avoids over-selection of very small villages while reflecting that installations are often located on the outskirts of several communities. Capturing multiple communities also allows me to better test the hypothesis that the local-level influence of a security installation moves through the personnel staffing the installation, who could live in one of several neighboring towns. By construction, these town-level measures lead to fewer communities being categorized as proximate to installations than sub-district measures (Appendix A.2, Visualized in Figure 2).

4.3 Quantitative Empirical Strategy

I use this data to test theoretical expectations about how the relationship between the local composition of public employment shaped protest activity in Syria. For each regression, the dependent variable is the number of protests in majority Sunni Arab (*Sunni family, Badawi*) communities. The principal model displayed below runs the specification over the full timeframe from February-December 2011. I use a Negative Binomial 2 Model because protest is a "count" outcome where the dependent variable is positive and overdispersed (Table 1) (Greene 2008). The primary explanatory variables in the model are the percentage of public sector workers per town, *Goverment Worker*, and the measures of proximity to a security installation (*Sub-District Security - Mazur, Sub-District Security - Wiki, Town Security - Nearest 4, Town Security - Within 5 km*).

I include an interaction of *Government Worker* and the measures of security installations to model how the relationship between state workers and protests is moderated by

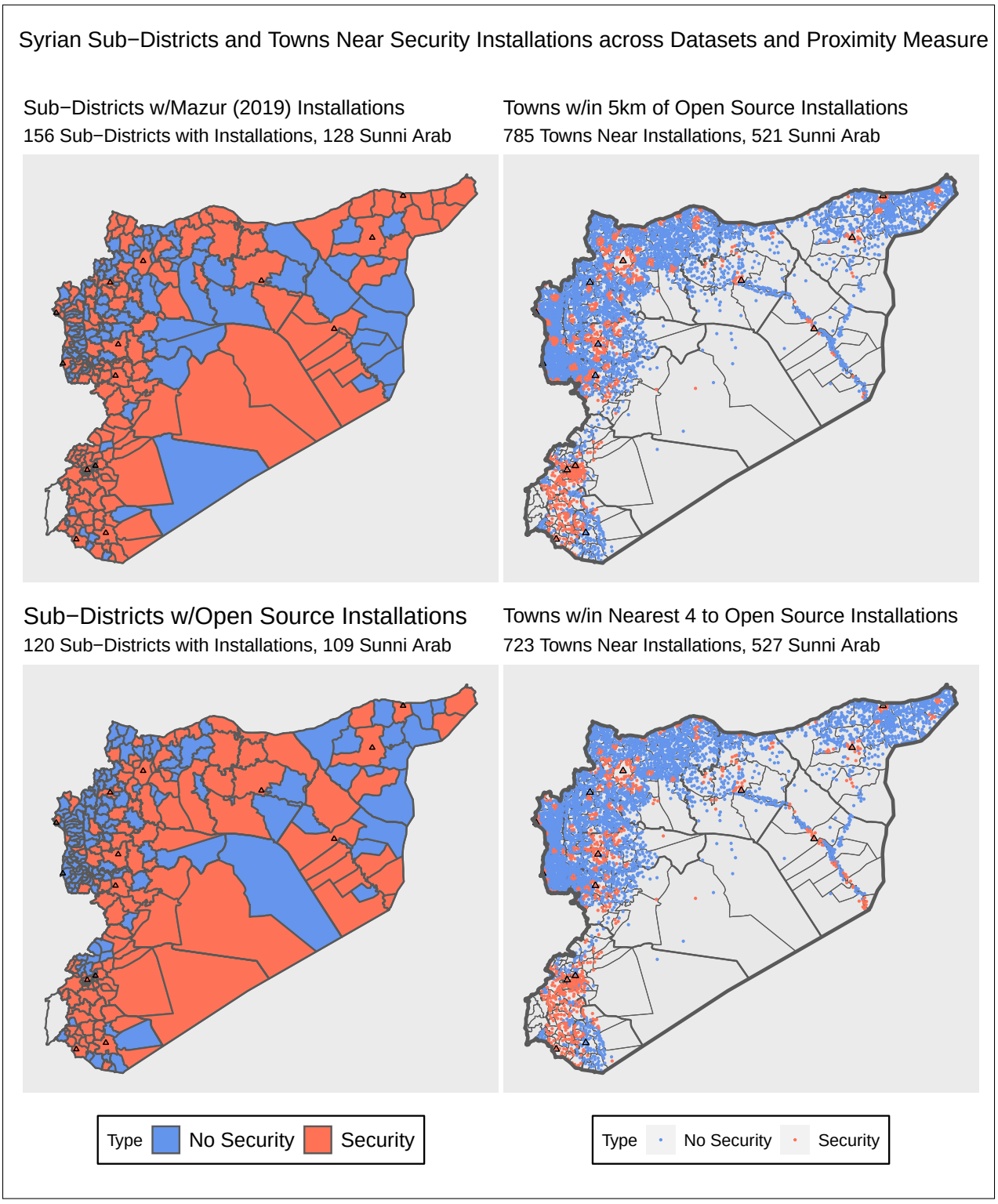

Figure 2: *Sources: Mazur (2019) and and Wikipedia Syrian Civil War Detailed Map.* The left panels display sub-districts coded as proximate to security installations using data from Mazur (2019) and an open source map of relevant locations in the Syrian Civil War Map. The right panels display two measures of town-level proximity to open source installations.

the presence of an installation. This interaction term captures the composition of census-tabulated public employees. In towns nearby installations, public employees are more likely to be involved in the security apparatus, whether staffing a local prison or serving as an officer at a nearby military base. Far from installations, meanwhile, they are more likely to be conventional civil servants. As these variables capture multiple communities near installations, the implication is that the dampening presence of a security installation moves through high-levels of public employment in the security apparatus in those communities.

As theorized, because security personnel had stronger, overlapping ties with the incumbent and faced more direct surveillance, the high-level presence of large numbers of security personnel should be more likely to dampen protest in Sunni communities. The high level presence of conventional public sector workers, whose ties to the regime were weaker and opportunities for disobedience broader, should have no dampening effect on protest. I also include the base model of these variables, such that the model captures a town where there is a *Security Installation* but very few *Government Workers*, or many *Government Workers* but no local *Security Installation.*

Support for this Proxy: To use security installations to proxy for the composition of state workers, the hundreds of thousands of professional, career military and repressive personnel employed by the Syrian state must appear as public employees in the census. A comparison between survey-tabulated and administratively-compiled data supports this assertion. Technically supported by the International Labor Organization, which includes military personnel in its definitions of government employees,[19] the 2004 Syrian census and Syria's 2005-2011 labor force surveys were collected via door-to-door enumeration. These studies consistently report approximately 1.3 million public employees. The labor force surveys break down this

total by gender. The Central Bureau of Statistics also presents annual administrative data from the same period, reporting total employees by gender in every Syrian ministry – *other than* the Ministry of Defense – that consistently totals 1 million public employees. Comparing the survey with the administrative data, the 300,000 missing personnel across every year are nearly all male. These discrepancies suggest that the 300,000 additional personnel are these employees of the repressive apparatus, specifically the Syrian Ministry of Defense (See Appendix A.3 for a more technical discussion). This figure accords with estimates that the Syrian military employed 8% of the labor force and 25% of the public sector.

Additional evidence that these personnel appear in the census comes from a close reading of the census data itself. In particular, well-known locations where the Syrian regime constructed large blocs of housing for mid-level military officers have among the highest recorded levels of public employment nationally. In a 2015 report, Khaddour (Khaddour 2015, p. 1) describes one such community, Dahiyet Al Assad, as "Assad's Officer Ghetto" which serves as "the site of the country's largest military housing complex." That this "Officer Ghetto" - administratively demarcated in 1982 only with the construction of this military housing - is recorded as having 74% of the population working in the public sector strongly suggests that the mid-level officers living there were tabulated as government employees in 2004. While granular data on the location of all military housing is unavailable, interviewees underscore how these forms of housing were common in towns neighboring installations. One officer in a major urban center lived with his family in a set of apartments owned by the military, a second lived in military housing "as close as possible to my work" at a base in the Damascus suburbs.[20] A third described how each major base in southern Syria had adjacent officer housing.[21] Reinforcing this assertion, Appendix A.3 shows the ten Sunni towns with

the highest-levels of government workers near installations usually host military housing, while Sunni towns with similar levels of public employment far from installations do not.

Empirical Specification: I follow Mazur to include a range of covariates measuring relative town-level socio-economic development or marginalization like *Primary School Enrollment, Secondary School Enrollment* and *Percentage Electric.* I similarly include variables capturing the presence of *Badawi* tribal networks, and the co-presence of an Alawite minority population in the community, *Alawi-Sunni mix.* I include measures of proximity to the capital and town-level population, using *Log Distance* and *Log Population* because of the distribution of these variables. As Table 1 shows, the population variable is highly correlated with the presence of all measures of proximity to local-level military installations, leading to concerns around common support for the interaction term of this variable (Hainmueller, Mummolo, and Xu 2019), which I address qualitatively and through quantitative robustness checks described below. The resulting specification is:

$$E[Y_i|X_i] = \exp(X_i^t\beta), \text{ where:}$$
$$Y_i = \textit{Protests in Town } i,$$
$$X_i = \textit{Public Employee, Security Installation, Public Employee X Security, Badawi, Distance to Capital, Log Population, School Enrollment, Secondary Enrollment, Electricity Provision, Alawi-Sunni Mix}$$

5 Civilian and Repressive Work are Differentially Associated with 2011 Protests

Table 2 reports results from the paper's model with the interaction term between public employment and security installations across the four different specifications of proximity. Figure 3 uses the Monte Carlo approximation from King, Tomz, and Wittenberg 2000 to compute the average partial effects of the relevant interaction term in order to substantively

interpret the results of the model. Columns 1 and 3 of Table 2 report results from a model that excludes an interaction term between the two variables of interest. In those models with no interaction term, public employment is weakly associated with dampened protest occurrence across the four different specifications of proximity to a security installation, while the presence of a local security installation ranges from negatively associated ($p < 0.1$) to having little association with protest occurrence.

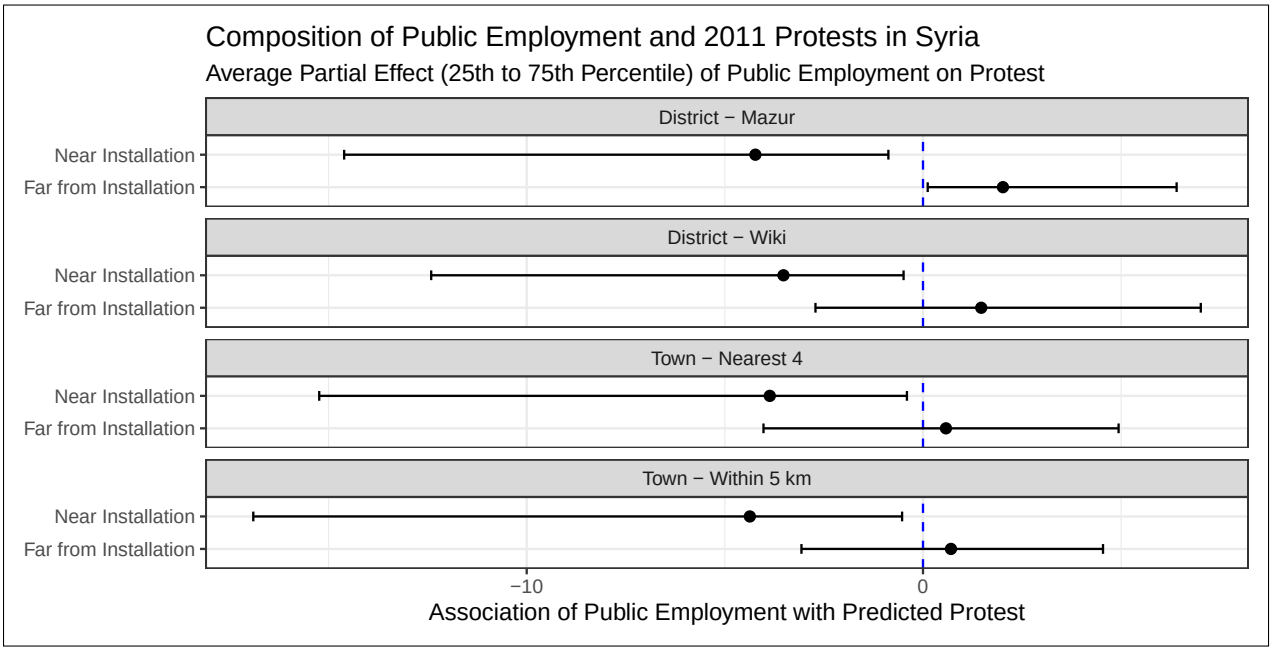

Figure 3: This plot displays the marginal effect of public employment on protest activity in Syria from February through December 2011 using four different measures of proximity to a security installation. The figures are calculated as moving from 25th to 75th percentile in public employment for Sunni towns with a 95% confidence interval. Results are drawn from across specifications in Table 3.

The interactive models of *Pub Employee* and the variables *Pub Employee* and the measures of *Security Installations* in Figure 3 and in Columns 2 and 4 of Table 2 provide support for the central hypothesis that the relationship between public employment and protest is contingent on the presence of a security installation. Figure 3 simulates these quantities. It shows that where there is a nearby security installation, a town in the 75th percentile of

Table 2: Public Employment, Protest, and Proximity to Security Installations across Measures of Proximity

	Town-Level Measures: Protest Outcomes			
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	−1.044	0.384	−1.023	0.491
	(0.754)	(0.960)	(0.754)	(0.944)
Town - Nearest 4	−0.385*	0.372		
	(0.232)	(0.441)		
Town - Within 5km			−0.251	0.591
			(0.236)	(0.461)
Pub Emp:T-N4		−2.844**		
		(1.365)		
Pub Emp:T-W5				−3.154**
				(1.406)
Constant	−23.324***	−23.329***	−23.148***	−23.128***
	(3.530)	(3.494)	(3.564)	(3.488)
Covariates	Yes	Yes	Yes	Yes
Observations	2,655	2,655	2,655	2,655

	District-Level Measures: Protest Outcomes			
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	−1.049	2.670**	−1.115	1.030
	(0.747)	(1.258)	(0.755)	(1.144)
District Security	0.117	1.535***		
- Mazur	(0.247)	(0.488)		
District Security			−0.423*	0.487
- Wiki			(0.227)	(0.444)
Pub Emp:		−5.370***		
District-Mazur		(1.534)		
Pub Emp:				−3.440**
District-Wiki				(1.428)
Constant	−22.840***	−24.206***	−22.856***	−23.129***
	(3.593)	(3.743)	(3.452)	(3.404)
Covariates	Yes	Yes	Yes	Yes
Observations	2,655	2,655	2,655	2,655

Note: *p<0.1; **p<0.05; ***p<0.01

These regressions display the results of a Negative Binomial - 2 regression of the interaction between public employment and two different measures of proximity to a security installation.

public employment for Sunni communities (26.3%) is associated with between 3.6 and 4.1 fewer protests when compared with a town in the 25th percentile (5.8%) of Sunni public employment. Across all specifications, these estimates are negative at 95% – Sunni towns with high levels of public employment near security installations see consistently dampened levels of protests than towns neighboring security installations with lower levels of public employment.

On the other hand, where there is no nearby security installation, and where my theory suggests public employees are less likely to be employed in the repressive apparatus, there is not a consistently negative relationship between public employment and protest. Instead, towns in the 75th percentile of public employment far from security installations are associated with 0.5 and 1.48 additional protests, though these estimates do not all meet conventional levels of statistical significance. While Table 2 reports only the point estimates and partial effects of these theoretically-motivated variables, Appendix A.4 reports full results for each model with both baseline and interaction term models as well as estimates for covariates that are not theoretically-motivated (Keele, Stevenson, and Elwert 2020).

Robustness Checks: The results are robust to several different model specifications which are presented in Appendix A.6. There are similar associations between public employment, security installations and protest with a range of alternative specifications for ranked proximity to a security installation and distance to a security installation; with the inclusion of Kurdish towns in the analysis; removal of installations tagged as "Border crossings"; removing the top-5 most deviant residuals from the analysis; minimizing missing observations by removing the electricity data from the model specification; and examining protests only before the onset of heavier violence (Mazur 2019, p. 1008). The robustness checks that

do not produce statistical significance are model specifications that select only the most immediately proximate towns: either those singularly closest (n = 201) or within two kilometers (Appendix A.6). This lack of significance relates to both the small sample and the proposed mechanism: measuring only the single closest town does not capture variation in where individuals who staff the security apparatus might live among communities close to installations.

I also show that results remain robust even when excluding Syria's cities (Appendix A.5). In doing so, I address a potential concern related to common support for the interaction term: Because there are major security installations in all provincial capitals – the largest cities by population in Syria that were focal points for protests in 2011 – the interaction term lacks covariate support for the population variable (Hainmueller, Mummolo, and Xu 2019). Appendix A.5 Figure A.5 visualizes the relationship between these three variables and shows that we see similar results when subsetting the dataset to towns with a population of under 50,000 individuals and to removing provincial capitals from the dataset. This robustness check ensures that the finding is not an artifact of the placement of security installations near large cities.

6 Public Employment and Protest in Four Towns

How should we understand the contingent association between public employment, security installations, and protest in the quantitative analysis? Section 4.4 argues that this interaction represents important differences in the *composition* of state workers in these communities. While repressive personnel are associated with a concentrated, dampening effect on protest occurrence, high levels of conventional civil servants are not associated with damp-

ened protest. However, the ideal quantitative data to support the theory is not available; there is no data that precisely disaggregates between town-level civil service employment and employment in the security apparatus. Before examining an alternative explanation, I first use case studies of two sets of towns near to and far from security installations to trace the relationships between forms of state work and protest outbreak (Lieberman 2005, p. 440). Table 3 displays how the four communities differ on the variables of interest. Interviews with state workers and in these communities alongside secondary sources illustrate how high levels of local employment in the security apparatus effectively dampened local protest in some communities, while high levels of conventional employment in the civil service facilitated or had little effect on local protest in others.

	Securitized Area Northwest Damascus Suburbs	Non-Securitized Area Southern Idlib Province
High Public Employment	Dimas 90% Public Employment 0 Protests	Kafranbel 52% Public Employment 7 Protests (99th Percentile)
Low Public Employment	Zabadani 21% Public Employment 16 Protests (99th Percentile)	Hass 32% Public Employment 0 Protests

Table 3: Town selection for qualitative analysis of public employment, security installations, and 2011 protest in two pairs of towns.

Near Security Installations, High Levels of Public Employment Dampens Protest: Zabadani and Dimas: Zabadani and Dimas are two nearby mid-sized Sunni majority cities that neighbor major security installations in the heavily militarized northwest suburbs of Damascus. Between Zabadani and Dimas sits the headquarters of Brigade 13. To the immediate northeast of Dimas lies a separate military base for the 104th Brigade affiliated with Syria's Republican Guard, a unit which "served as the backbone of the regime's fight-

ing forces," employing approximately 3,500 career personnel (Waters 2018, p. 4).While both Dimas and Zabadani are coded as proximate to installations at the sub-district level in the *Mazur* and *Open Source* district-level variables, Zabadani is not among the *Nearest 4* or *Within 5 km* towns.

These neighboring communities followed different trajectories in the Syrian uprising that comport with the theory that high levels of local military employment dampened protest activity. Unlike Dimas, residents of Zabadani were unlikely to be employed in the security installations located near the town: "if you were from Zabadani, you were very unlikely to work in the military or the security – that was not going to happen. The regime did not trust Zabadani," said an interviewee who worked in the town's market and supported protests.[22] The town was instead known for agriculture, hosting Gulf tourists in the summer, and cross-border smuggling into Lebanon.[23] Zabadani staged early protests, eventually hosting 16 over the course of 2011 (99th percentile).

Dimas, meanwhile, featured among the highest levels of public employment in Syria, at 90.5% of its population of 14,574 employed in the public sector, many of whom lived in military housing. One interviewee from Zabadani described Dimas "all generals." One Sunni officer living in military housing near Dimas described the conditions he and others like him faced in early 2011, tracing how his pre-disposition to loyalty and extensive surveillance made him and the communities around him especially unlikely to stage protests. Unlike others interviewed, this officer was not pre-disposed to support protests: "I had just received the promotion I had been dreaming of since I first joined as a lieutenant at exactly the moment the revolution began. From the first moment, I did not want chaos in the country, and I knew the regime would not fall. I did not want there to be a revolution in the first place."[24]

Describing disaffection as the regime intensified violence, he detailed exhaustive surveillance, facing questioning from the very first day of protests that only intensified when a relative was arrested for protesting in a distant city. After deciding to defect by early 2012, he did not tell his spouse or children until their planned defection was underway, fearful his children might disclose their plans at school with the children of other officers. In communities like Dimas, these state workers - overwhelmingly staffers of the repressive apparatus working in the nearby installations and living in state-provided housing - were deeply unlikely to contribute to local protests. Instead with suppressing the ongoing protest movement and facing high levels of surveillance, even disaffected officers planned individualized defection rather than supporting public contentious action. Far from hosting protest in 2011, Dimas remained in government control throughout the conflict. Social media sites instead concentrate on local officers' sacrifice for Al Assad throughout the war. Years later, besieged rebels in Zabadani threatened to poison the downstream drinking water of Dimas's officers.[25]

Far from Security Installations, High Levels of Public Employment Has No Relationsip or Increases Protest: Kafranbel and Hass: In communities further from installations, census-tabulated public employment had little relationship with protest. Kafranbel and Hass are two adjacent communities in the northwestern, majority Sunni province of Idlib. Neither town is proximate to a security installation. A larger city separates them from the Wadi Deif military base, one of the largest facilities in pre-war northern Syria. Both feature relatively high percentages of public sector employees for Idlib province: 51.5% in Kafranbel and 32% in Haas.

Despite high levels of public employment, Kafranbel had experienced decades of political marginalization, especially after a local man's failed 1980 assassination attempt on Hafez Al

Assad. Four interviewees from the area and secondary evidence[26] emphasize that this reality in some ways *pushed* residents into civilian jobs that were easier to access than military jobs:

> The pressure from the regime on the city in the 80s caused a lot of suffering. ...The regime's accusation [of disloyalty] turned away individuals who previously would go into the military or the security services. Civilian jobs, like teaching or others, were not seen as valuable by the regime, in terms of their priorities in controlling the reigns of government. There was space for the people of Kafranbel, and from areas that were not considered loyal to them generally, in these jobs. - Interview 27, Former Teacher, Idlib (Kafranbel)

Amid high levels of public employment, Kafranbel is recorded as hosting seven protests in 2011 (98th percentile), drawing fame for banners creatively communicating protesters' goals.

In interviews, conventional public employees from Kafranbel expressed varied responses to the revolution, with many participating in ways that sustained protest that stand in stark contrast to behaviors described by security personnel. The politically active teacher quoted above noted that he was "ready for really any movement that might rid us of the ruling regime;" in the weeks after protests began in Deraa, he helped to organize initial protests in Kafranbel and worked to mobilize his colleagues.[27] A second teacher noted varied responses among his colleagues – "in Kafranbel, many employees were at the very first protests" – even as he himself refrained from joining.[28] A local doctor also refrained from direct protest participation but took the "extraordinarily dangerous" step of serving in a covert field hospital treating wounded protesters. Unlike the Sunni officer in Dimas who faced surveillance after a relative protested in a different city, the doctor in Kafranbel reported that his job in some ways made him feel more secure even as his family members faced arrest because the regime needed him to treat their own wounded soldiers.[29] Consistent with the theory, high levels of civilian employment appear to have had little dampening effect on protests, as Kafranbel instead emerged as a hotbed of opposition.

The smaller, neighboring community of Haas was joined to Kafranbel on a single street, with many individuals from Haas joining marching protests in the neighboring town. Like Kafranbel, the town was known for employing public school teachers as well as healthcare workers and local bureaucrats.[30] A nurse who reported that he was one of many that "flooded the streets" in the early days also reported serving in a covert field hospital while treating wounded military personnel in the same government hospital as his colleague from Kafranbel. Unlike the doctor from Kafranbel, he stopped attending work months into the protest movement, eventually too fearful to move through checkpoints. He described the workplace atmosphere:

> "At the very beginning, in the hospital, there was fear. But I was a son of the village, and so I knew my colleagues and friends from the village. We generally knew one anothers opinions and perspectives. If I had a colleague from a different village, I would be more cautious...conservative. After a few weeks it was clear we were all on the same side." – Interview 28, Former Nurse, Idlib

This nurse's recollection of the connections between his experiences at work and his political behavior at the outset of the protest stand in stark contrast to the recollections of military and security personnel interviewed who recalled intensive, workplace-level monitoring. Together, civil servants' testimonies are consistent with the theory that high levels of civilian employment had little dampening effect on protest. Instead, state workers varied responses to protests resembled the broader population, with many participating to sustained contentious action launching from their communities.

7 Limited Evidence for Alternative Mechanism

Though I present evidence that the quantitative results reflect the composition of local employees, the quantitative relationship is compatible with an alternative mechanism: violence or anticipation of violence emanating from security installations may have selectively

dampened protest occurrence (Arriola 2013; Cebul and Grewal 2022), but only in communities with high levels of public employment. In other words, for this mechanism to explain the quantitative relationship, this violence or anticipation of violence would need to only be in effect in communities with high numbers of state personnel near security installations, and not elsewhere. Levels of protest in communities near security installations without public employees would need to be unaffected by the neighboring installation. Public employees may have been more identifiable to the state and they may have had more to lose by attending protests (Mazur 2019, p. 2018). Theoretically, public employees with links to the state could also have had more specialized knowledge of oncoming retaliation. However, state workers would have needed to only fear retaliation when they lived near security installations, and not elsewhere. Three sources of evidence undermine the likelihood this interpretation explains the quantitative results.

First, analysis of a publicly available dataset reveals no quantitative evidence that communities protesting near security installations did experience greater violence. Compiled by the Syrian Center for Statistics and Research, the dataset records 14,573 individuals arrested or killed between March and December 2011, with 12,681 arrests and casualties linked to localities. The analyses in Appendix A.7 show that there is no evidence of a significant difference in towns near to and far from installations in casualties, among towns holding at least one protest. These numbers should be interpreted with caution because of the high variation in casualties across cities and biases in casualty reporting, even as they underscore that there is no systematic evidence linking installations to heightened local violence.

In keeping with this evidence, research highlights that the regime first used external, elite units to police protests (Holliday 2013; Waters 2018), rather than relying on policing

from local installations. These elite units would work with more locally-stationed troops to prevent the wholesale defection of less-loyal units and to monitor conscripts. When those units became overstretched by late 2011, the Syrian regime began equipping local militias to respond to both protests and armed opposition activity. Regime reliance on external, elite units and then informal militias undermine the notion that violence emanating directly from installations explain the relationship between public employees, installations, and protests.

Finally, public servants testimonies do not provide support for this interpretation because they overwhelmingly emphasized diffuse risks of protest with little regard for the connection to their workplace. Because the Syrian regime deployed indiscriminate violence from the first date of these protests, all individuals supporting or engaging in protest confronted extreme risks. Rather than fearing dismissal from their jobs (Mazur 2019, p. 2018) or targeted repression within the workplace, public employees emphasized fears of arrest outside of work. Echoing narratives common among ordinary Syrian protest participants, six civil servants expressed how fears they would be disappeared at checkpoints influenced their behavior, but no civil servant expressed the belief they'd be arrested within state institutions.[31] These emphases diverge from those of repressive personnel, all of whom reported heightened surveillance within the workplace or fears their immediate colleagues might report on them.[32] These narratives undermine an interpretation that state workers - but only those near security installations - were more likely to selectively fear targeted violence than others in their community.

8 Discussion

This paper presents evidence that communities home to staffers of the repressive apparatus were especially unlikely to stage protests in Syria's 2011 uprising. By contrast, communities with high levels of employment in the civil service were equally - or even more likely - to stage protests against Al Assad. The findings complement qualitative studies detailing the absence of any collective disobedience as Syria's protests evolved into civil war (Albrecht and Ohl 2016; Koehler, Ohl, and Albrecht 2016; Bou Nassif 2015b; Bou Nassif 2015a), even amid waves of individualized defection. While scholarship on the repressive apparatus's role in underpinning authoritarian resilience in the 2011 Arab Spring (Bellin 2012; Barany 2016; Grewal 2023) often focuses on national-level outcomes, for instance beliefs about whether the military will fire on protesters (eg, Cebul and Grewal (2022)) or decide to defect (eg, Wolf (2025)), this paper traces how the repressive apparatus can influence the sub-national geography of protest, itself. Because local protests signal geographies of support for ongoing social movements, they have important ramifications for how both domestic and international observers understand unfolding mobilization.

In emphasizing that conventional civil servants' behaviors more closely resembled the broader population, I points to two scope conditions in the Syrian case that may increase the likelihood that the behavior of civilian and repressive employees would diverge. First, civil servants behavior during episodes where citizens come to believe that incumbents may fall (Kuran 1989) should differ from behavior amid smaller scale movements when they may be more likely to fear immediate retaliation. Second, the pre-2011 Syrian regimes' remarkable levels of repression (Wedeen 1999) distinguishes it from a growing number of

global autocracies that allow for some political or ideological competition (Levitsky and Way 2002; Guriev and Treisman 2019). This research suggests that Syria's high levels of repression may contribute to weaker ties between civil servants and the incumbent, given the challenges in screening for disloyalty amid broad preference falsification.

Future research could probe these scope conditions and disentangle how the bundled mechanisms of selection, compensation, and monitoring independently tie state workers to incumbents, a challenge in settings where limited administrative or public opinion data is available and security concerns limit the possibilities of in-person research. Methodologically, this research joins a growing chorus that uses open-source geo-spatial data to develop novel and replicable measures of the reach of the state (eg, Chang and Wang (2023)). The research simultaneously suggests the need for greater scrutiny of how censuses tabulate state employees, especially in cases where the military and intelligence services are large employers. While this paper emphasizes how census data may obscure the role of coercive personnel amid protest movements, distinguishing conventional state workers from the repressive apparatus in official statistics could also generate new insights in the study of autocratic political economies.

Finally, while contention is multi-layered (McAdam, Tarrow, and Tilly 2003), this study concentrates on the dispersion and regularity of protest. Qualitative interviewees routinely surfaced individuals' diverse reactions to unfolding contentious episodes beyond public engagement in the town square: military personnel can attempt to shirk or defect; teachers can surveil their colleagues or encourage students to protest; doctors treat the wounded on both sides. Future research could contribute to our understanding of state employee behavior by conceptualizing and examining a broader range of contentious behaviors.

Notes

[1]This research received IRB approval from MIT's Committee on the Use of Human Subjects in Experimental Research, #2101000302.

[2]"International Institute for Strategic Studies, the Military Balance, 2010," Chapter 5, pp. 272-273.

[3]Syrian Statistical Abstract, Labor Force Surveys 2010, Tab 4 Table 13, https://web.archive.org/web/202 Chapter3/TAB-13-3-2011.htm

[4]Interview 23, Military Officer, Aleppo.

[5]Interview 17, Military Officer, Damascus

[6]Interview 17, Military Officer, Damascus; Interview 23, Military officer, Aleppo; Interview 25, Military Officer, Deraa

[7]Ibid.

[8]Ibid.

[9]Eight teachers and healthcare workers interviewed began work for the state as part of compulsory service. Two older teachers noted that shortages of qualified teachers meant they were immediately installed after receiving a bachelor's degree

[10]Interview 13, Activist, Kafranbel; Interview 16, Teacher, Aleppo; Interview 19, Nurse, Idlib; Interview 20, Bureaucrat, Rural Homs & Damascus; Interview 24, Teacher, Kafranbel; Interview 27, Doctor, Idlib; Interview 30, Nurse, Deir El Zour & Damascus.

[11]Interview 19, Former Nurse, Idlib

[12]Interview 15, Former Nurse, Aleppo; Interview 16, Former Teacher, Rural Aleppo; Interview 26, Former Teacher, Idlib.

[13]Interview 16, Former Teacher, rural Aleppo; Interview 26, Former Teacher, Idlib (Kafranbel); Interview 21, Former Teacher Idlib; Interview 27, Former Doctor, Idlib, (Kafranbel)

[14]Interview 27, Former Doctor, Idlib.

[15]This data is described on pages 1008-1015 of Mazur 2019.

[16]I include border outposts as they are usually staffed by military personnel, but show the results below are robust to their exclusion. I remove settings marked as strategic mountain passes and depopulated places.

[17]A research assistant with knowledge of Syria's repressive apparatus examined differences between the datasets for each of the 268 districts. The preponderance of missing units are cases where there is no large military installation, but the town as a district capital and therefore home to a regional branch of one of an intelligence services. For instance, the northern Aleppo district of Menbij was home to branches of these intelligence services - as evidenced by news of the assassination of personnel stationed at them in 2012 - but not a major military installation. Menbij is tabulated as hosting a security installation in the hand-coded dataset but not the open-source dataset. The replication dataset includes the geo-tagged, named locations of every installation from the Open Source dataset as well as the district level observations with supportive secondary sources.

[18]I limit these communities to within 10 kilometers to avoid over-selecting very remote installations in eastern Syria.

[19]ISIC Industry Classifications as of 2003, Department of International Economic and Social Affairs, Statistical Office of the United Nations, Link, pp. 162-176.

[20]Interview 23, military officer, Aleppo; Interview 17, military officer, Damascus suburbs

[21]"In the south of Syria, you had the Fifth, the Seventh, the Ninth, and the Fifteenth Division, which was Special Forces, and you had the First Legion. There is a highway between Suwayda and Damascus, there you have the First Legion. Those who were commissioned or non-commissioned officers in the First Legion, they can request to live in the military housing there. You have the military housing for the Ninth Division, which was near Sanamayn. Anyone who is commissioned or non-commisioned in the Seventh Division can live in the military housing near the division..." - Interview 25, military officer, Deraa

[22]Interview 29, Artisan, Zabdani

[23]Interview 29, Artisan, Zabdani; Sharif Abdel Kaddous, "On the Ground in Zabadani, A Syrian Town in Revolt," *The Nation,* August 13, 2012, Link; and Mazen Ezzi, "Post-Reconciliation Rural Damascus: Are Local Communities Still Represented?", *European University Institute Middle East Directions,* November 2020, Link

[24]Interview 17, former military officer, Damascus suburbs

[25]"Wayback Machine: Al Jazeera Net, 'Fatalities in Syria and a Campaign in Zabadani,' March 19, 2014, Link"

[26]Interview 28, Former Nurse, Idlib (Haas); Interview 24, Former Teacher, Idlib (Kafranbel); Interview 26, Former Teacher, Idlib (Kafranbel); Interview 27, Former Doctor, Idlib (Kafranbel);"What was said about the departure of the novelist Abdalaziz Al Moussa," *Zaitoun Mag,* September 9, 2020, Link.

[27]Interview 27, Former Teacher, Idlib (Kafranbel)

[28]Interview 26, Former Teacher, Idlib (Kafranbel)

[29]We didn't face so much harassment at the checkpoints as others, honestly. They knew and we knew that they needed us in the hospitals. Interview 27, Former Doctor, Kafranbel

[30]Razb Al Aabi, "(AR) Hass: A heavenly village in the eyes of its people," *eSyria,* July 12, 2009, Link.; Interview 13.

[31]Interview 15 former nurse, Aleppo; Interview 19 former nurse, Idlib; Interview 21, former teacher, rural Idlib; Interview 22, former teacher, rural Damascus; Interview 24, former teacher, rural Idlib; Interview 27, former doctor, Idlib; Interview 28, former nurse, Idlib.

[32]One non-commissioned officer from Deraa emphasized that he "did not leave work for a full month" once the protest movement began. Interview 25, Former military officer, Deraa.

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A Appendix

Contents

A.1 Qualitative Interview Methods

I conducted thirty formal, open-ended interviews over several years. Given the geographic breadth of respondents, security concerns in Syria, and the COVID-19 pandemic, twenty-four of thirty interviews were conducted remotely. Because conversation and reflection on the subjects posed in this study would pose unacceptable risk for individuals in government-held Syria, all respondents interviewed now reside in areas of Syria outside of the control of the Syrian government or internationally.

Approximately one-third of Syrians have fled the country and more than half have been internally displaced since the outbreak of conflict in 2011. The vast majority of academic scholarship seeking to better understand the Syrian revolution draws on their experiences and testimonies. However, the large numbers of individuals who have been forced to flee limit but do not eliminate selection effects inherent in interviewing Syrians in areas outside of regime control. As Pearlman 2021 (1792) details, these individuals are slightly more likely to be anti-government and are less likely to be among the "risk-acceptant" who experienced arrest or imprisonment or were killed at protests. I primarily use interview evidence to establish differences among categories of state workers - repressive and civil service personnel - that should not be differentially impacted by this potential selection effect.

Interviews for this research reflected a process of inductive iteration (Yom 2015). In 2018 through 2021, I conducted open-ended interviews structured as oral histories that produced unanticipated insights into the nature of (non-)participation during Syria's protests. I simultaneously conducted interviews with technical experts familiar with Syria's statistical data. To select respondents for these interviews, I used snowball sampling through personal networks developed amid immersion in Syrian communities in exile.

Refining my theory in light of new insights, I subsequently conducted fifteen additional structured interviews with state workers. To reach former state workers, I worked with two research assistants of different gender, social, geographic, religious background, and attitudes and histories of engagement with Syria's protest movement. While seeking to reach state workers across geographic divides, I sought to over-represent employees from the communities I analyze in the nested case study. In keeping with the goals of comparison across groups, I asked the same set of initial questions of both conventional state workers and staffers of the repressive apparatus. I ceased conducting interviews with state workers when additional interviews did not generate new insights relevant to the study.

A.2 Number of Towns Captured as Proximate at Different Measures

Distance Measure	Proximate Towns	Proximate Sunni Towns
Hand-Coded District	2950	1597
Open-Source District	2161	1434
Closest Town	259	201
Within 2 Towns	442	336
Within 3 Towns	605	450
Within 4 Towns	729	530
Within 5 Towns	838	602
Within 6 Towns	944	670
Within 5 KM	785	521
Within 5 KM 2	774	515
Within 10 KM	1721	1110
Within 20 KM	2017	1318

Table A.4: Number of Towns Proximate to Military Installations, Various Measures

A.3 Syrian Census Data and Enumeration of Security Personnel

More information on Statistical Abstracts and Census Data: In Section 4.3, I discuss whether career military personnel are included in the Syrian census data. Extrapolating from labor force participation rates and total population, the 2004 Syrian census data records 1.3 million public employees.[33] This number is in line with the number of government employees reported in Syria's Labor Force Surveys from 2005 through 2011, displayed in Table A.5 and accessed via Syrian Statistical Abstracts.

As door-to-door survey data, the 2004 Syrian census and the Labor Force surveys report 300,000 additional government employees than a separate Syrian Central Bureau of Statistics data series using administrative data reported directly from twenty-four of Syria's twenty-five government ministries,[34] with the exception of the Ministry of Defense. One note in this series explicitly states Ministry of Defense personnel are missing from this table: "except the Presidency of the Republic, the Presidency of the Council of Ministers, and the Ministry of Defense."[35]

As the last column of Table A.5 shows, nearly all of the "missing" employees in this administratively-compiled data are men. The 300,000 individual discrepancy aligns with public estimates of the size of the Syrian military establishment when excluding conscripts. I conclude that the additional government-employed males who appear in the Central Bureau of Statistics' survey data, but not in the administrative data it compiles from ministries, reflect employees of the Syrian military establishment.

A.4 Full Regressions with all Covariates

Survey and administrative data in Syria's statistical abstract

Year	Public Employees in Labor Force Survey (Males)	Public Employees in Ministry-Reported Data (Males)	Additional males in survey data
2011	1.36 million (994,185) Link	1.10 million (700,877) Link	290k
2010	1.44 million(1.06) Link	1.07 million (692,188) Link	305k
2009	1.38 million (1.02) Link	1.07 million (701,917) Link	319k
2008	1.37 million (1.03) Link	1.06 million (707,020) Link	322k
2007	1.35 million (1.01) Link	1.04 million (690,289) Link	319k
2006	1.26 million (957,264) Link	1.03 million (694,403)Link	262k
2005	2004 Syrian census data: 1.3 million; Abstract sum missing	983,476 (657,703) Link	NA
2004	Abstract sum missing	983,476 million (666,190) Link	NA

Table A.5: See A.3 Syrian Census Data and Enumeration of Security Personnel for table description.

More evidence of compositional differences near to and far from security establishments:

Largest Sunni towns with high public employment in districts with installations				
Town	Governorate	Gov't Worker	Identity	Notes
Deir-e-Zour	DeZ	0.60	Bedouin	NA; Known for military engagement
Qatana	R. Damascus	0.69	Sunni	Military housing[36]
Al Qutayfah	R. Damascus	0.71	Sunni	Military housing[37]
Shaddadah	Hasakeh	0.79	Bedouin	Oil fields
Maabada (*Kiri Leki*)	Hasakeh	0.74	Bedouin; *Kurdish*	Oil fields
Dimas	R. Damascus	0.90	Sunni	Military housing[38]
Ghabagheb	Daraa	0.64	Sunni	Military housing
Mahjeh	Dar'a	0.63	Sunni; Christian	NA; near 10th Armored Brigade
Jbab	Dar'a	0.74	Sunni	Largest southern air defense base
Big Sweidiyeh	Ar-Raqqa	0.69	Bedouin	Adjacent to publicly-run Tabqa Dam

Largest Sunni towns with high public employment in districts w/out installations				
Town	Governorate	Gov't Worker	Identity	Notes
Tiba Elemam	Hama	0.53	Sunni	NA; museum & tourist economy
Kafranbel	Idleb	0.52	Sunni	NA; major protest center
Termanin	Idleb	0.56	Sunni	NA; historic military
Mhambal	Idleb	0.54	Sunni	Little info available
Iss	Aleppo	0.76	Bedouin	Little info available
Jabaadin	R. Damascus	0.59	Sunni	Little info available
Ghasm	Dar'a	0.65	Sunni	NA; birthplace of regime elite FM Faysal Miqdad
Kafryehmul	Idleb	0.66	Sunni	Little info available
Abba	Tartous	0.72	Sunni	Little info available
Twani	R. Damascus	0.69	Sunni	Next to but across sub-district boundary from Brigade 14

Table A.6: The top pane of this table draws from secondary sources to show that towns with high levels of employment in sub-districts with security installations often contain housing for military personnel, or are small towns directly adjacent to major military installations. The bottom panel of the table shows there is no secondary evidence that towns far from security installations host military housing. This reinforces the assertion that the composition of public employees differs near major military installations.

Table A.7: Public Employment, Protest, and Proximity to Security Installations Identified via Subdistrict - Mazur dataset.

	Dependent variable:			
	Protests Periods 1-2		Protests Periods 1-3	
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	-1.772^{**}	1.767	-1.049	2.670^{**}
	(0.850)	(1.534)	(0.747)	(1.258)
Badawi	-1.554^{***}	-1.419^{***}	-1.582^{***}	-1.433^{***}
	(0.451)	(0.456)	(0.407)	(0.408)
Security Installation	0.217	1.474^{***}	0.118	1.536^{***}
	(0.276)	(0.555)	(0.247)	(0.488)
Log Dist. Cap	0.233^{*}	0.203	0.174	0.145
	(0.132)	(0.132)	(0.125)	(0.124)
Log Pop.	2.035^{***}	2.059^{***}	1.878^{***}	1.905^{***}
	(0.111)	(0.112)	(0.098)	(0.098)
School Enrol	-1.722	-2.436	0.441	-0.316
	(3.015)	(3.126)	(3.438)	(3.516)
Pct Elect	5.238^{**}	6.387^{***}	4.346^{**}	5.576^{***}
	(2.374)	(2.397)	(2.110)	(2.127)
Sec. Enrol	2.244	2.449	1.681	1.904
	(1.760)	(1.786)	(1.522)	(1.543)
Alawi-Sunni Mix	0.876^{*}	1.069^{**}	0.622	0.845
	(0.529)	(0.533)	(0.518)	(0.517)
Pub Emp:Installation		-4.901^{***}		-5.370^{***}
		(1.817)		(1.534)
Constant	-23.568^{***}	-24.782^{***}	-22.837^{***}	-24.202^{***}
	(3.364)	(3.557)	(3.593)	(3.743)
Covariates	Yes	Yes	Yes	Yes
Observations	2,652	2,652	2,652	2,652

Note: *p<0.1; **p<0.05; ***p<0.01

Table A.8: Public Employment, Protest, and Proximity to Sub-District-Level Security Installations Identified via Open Source Dataset.

	Dependent variable:			
	Protests Periods 1-2		Protests Periods 1-3	
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	0.845***	0.140	−1.115	1.030
	(0.299)	(1.371)	(0.755)	(1.143)
Badawi	−0.032	−1.395***	−1.486***	−1.440***
	(0.147)	(0.447)	(0.403)	(0.402)
Security Installation	−0.366***	0.273	−0.423*	0.487
	(0.105)	(0.501)	(0.227)	(0.444)
Log Dist. Cap	0.172***	0.176	0.154	0.124
	(0.045)	(0.134)	(0.127)	(0.125)
Log Pop.	1.168***	2.106***	1.920***	1.935***
	(0.035)	(0.114)	(0.100)	(0.099)
School Enrol	5.521***	6.118**	4.508**	5.157**
	(0.801)	(2.386)	(2.104)	(2.123)
Pct Elect	5.004***	2.402	1.961	1.897
	(0.692)	(1.770)	(1.527)	(1.533)
Sec. Enrol	3.168*	−2.471	0.156	−0.551
	(1.915)	(2.763)	(3.251)	(3.209)
Alawi-Sunni Mix	0.755***	0.987*	0.668	0.718
	(0.108)	(0.530)	(0.519)	(0.514)
Pub Emp:Installation		−3.021*		−3.440**
		(1.662)		(1.427)
Constant	−22.428***	−24.017***	−22.852***	−23.125***
	(2.022)	(3.181)	(3.452)	(3.404)
Covariates	Yes	Yes	Yes	Yes
Observations	2,652	2,652	2,652	2,652
Note:				*p<0.1; **p<0.05; ***p<0.01

Table A.9: Public Employment, Protest, and Proximity to Security Installations Identified as Among Nearest 4 Towns to Open Source Installation

	Dependent variable:			
	Protests Periods 1-2		Protests Periods 1-3	
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	−1.758**	−0.455	−1.044	0.384
	(0.859)	(1.167)	(0.754)	(0.960)
Badawi	−1.518***	−1.475***	−1.516***	−1.470***
	(0.449)	(0.452)	(0.402)	(0.404)
Security Installation	−0.186	0.428	−0.385*	0.372
	(0.251)	(0.488)	(0.232)	(0.441)
Log Dist. Cap	0.224*	0.203	0.159	0.137
	(0.135)	(0.135)	(0.128)	(0.127)
Log Pop.	2.082***	2.094***	1.941***	1.960***
	(0.114)	(0.114)	(0.101)	(0.101)
School Enrol	5.287**	5.810**	4.428**	5.033**
	(2.381)	(2.394)	(2.116)	(2.127)
Pct Elect	−1.814	−2.311	0.210	−0.429
	(2.911)	(2.900)	(3.342)	(3.303)
Sec. Enrol	2.534	2.285	2.175	1.876
	(1.788)	(1.810)	(1.555)	(1.575)
Alawi-Sunni Mix	0.907*	1.003*	0.629	0.772
	(0.534)	(0.534)	(0.521)	(0.520)
Pub Emp:Installation		−2.327		−2.844**
		(1.545)		(1.365)
Constant	−23.896***	−23.929***	−23.324***	−23.329***
	(3.296)	(3.290)	(3.530)	(3.494)
Covariates	Yes	Yes	Yes	Yes
Observations	2,655	2,655	2,655	2,655
Note:				*p<0.1; **p<0.05; ***p<0.01

Table A.10: Public Employment, Protest, and Proximity to Security Installations for Towns Identified within 5 Kilometers of Open Source Installation

	Dependent variable:			
	Protests Periods 1-2		Protests Periods 1-3	
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	-1.772^{**}	-0.314	-1.023	0.491
	(0.862)	(1.158)	(0.754)	(0.944)
Badawi	-1.542^{***}	-1.480^{***}	-1.529^{***}	-1.467^{***}
	(0.450)	(0.452)	(0.403)	(0.404)
Security Installation	-0.038	0.673	-0.251	0.591
	(0.256)	(0.513)	(0.236)	(0.461)
Log Dist. Cap	0.226^{*}	0.206	0.156	0.137
	(0.136)	(0.136)	(0.128)	(0.128)
Log Pop.	2.060^{***}	2.078^{***}	1.915^{***}	1.941^{***}
	(0.113)	(0.113)	(0.100)	(0.100)
School Enrol	5.263^{**}	5.899^{**}	4.419^{**}	5.138^{**}
	(2.375)	(2.396)	(2.110)	(2.126)
Pct Elect	-1.793	-2.382	0.329	-0.424
	(2.934)	(2.889)	(3.390)	(3.314)
Sec. Enrol	2.358	2.004	2.036	1.636
	(1.782)	(1.810)	(1.548)	(1.568)
Alawi-Sunni Mix	0.922^{*}	1.073^{**}	0.669	0.871^{*}
	(0.532)	(0.535)	(0.521)	(0.523)
Pub Emp:Installation		-2.698^{*}		-3.154^{**}
		(1.602)		(1.406)
Constant	-23.634^{***}	-23.653^{***}	-23.148^{***}	-23.128^{***}
	(3.304)	(3.266)	(3.564)	(3.488)
Covariates	Yes	Yes	Yes	Yes
Observations	2,655	2,655	2,655	2,655
Note:				*p<0.1; **p<0.05; ***p<0.01

A.5 Robustness: Population and Common Support

A.6 Robustness Checks: Sensitivity to Measures of Proximity, Removing Border Communities, Removing Top 5 Residuals, Removing Electricity Covariate, Adding Kurdish Communities

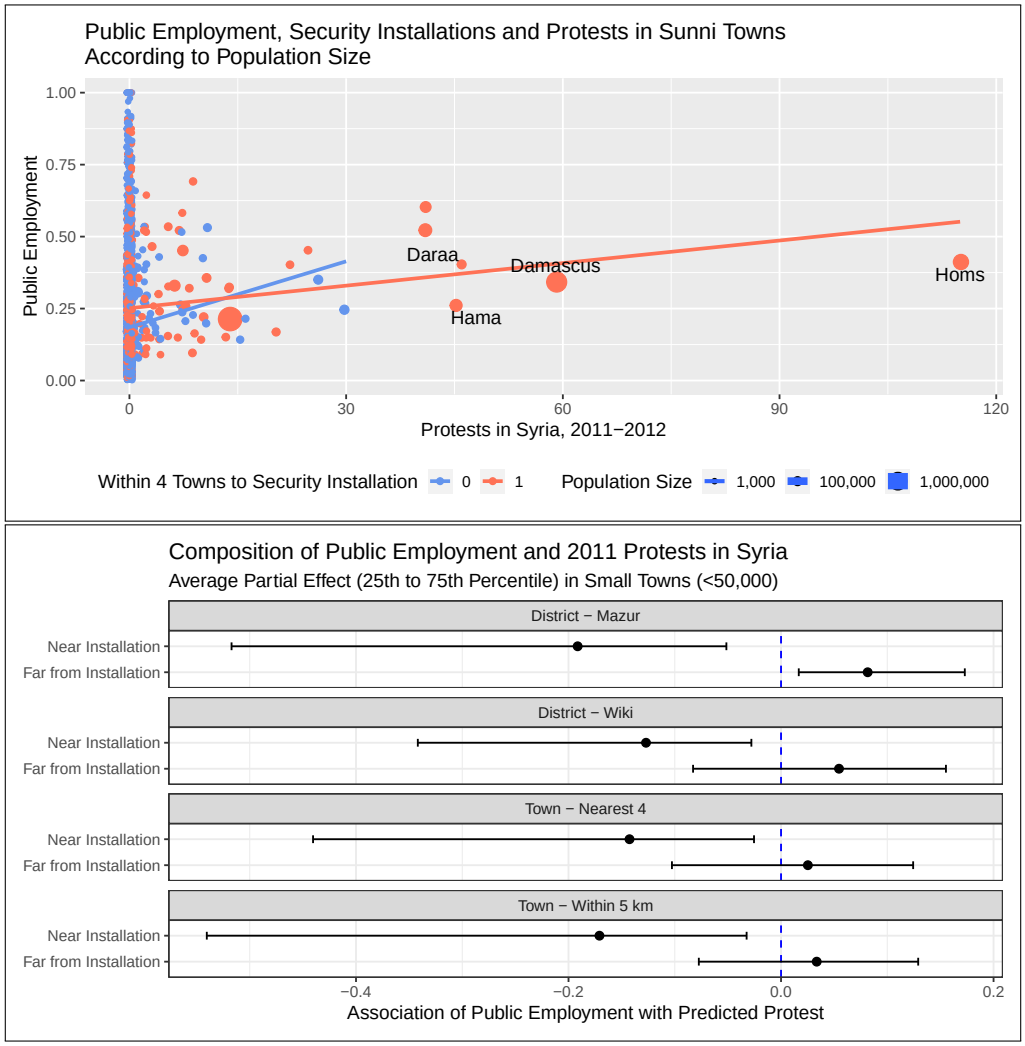

Figure A.4: The top panel of this figure shows that all of Syria's large provincial capitals are home to security installations, such that there is not common support for the population variable in the main regressions. The bottom panel shows the results of a regression analysis truncating the data to only towns with populations below 50,000. The figure visualizes the results from Table A.8 of the marginal effect of moving from the 25th to 75th percentile of of public employment among these communities on protest occurrence. The figure shows that public employment remains negatively associated with protest activity in communities near security installations, whereas there is still no consistent association between public employment and protest in towns far from installations.

Table A.11: Public Employment, Protest, and Proximity to Security Installations in Smaller Towns (Population <50,000)

	Dependent variable:			
	Protests Periods 1-3			
	Mazur (2019)	District - Wiki	Nearest 4	5 km Buffer
	(1)	(2)	(3)	(4)
Pub Employee	2.958**	1.137	0.527	0.691
	(1.274)	(1.182)	(0.981)	(0.973)
Badawi	−1.468***	−1.457***	−1.487***	−1.472***
	(0.474)	(0.473)	(0.470)	(0.468)
District - Mazur	1.755***			
	(0.494)			
District - Wiki		0.590		
		(0.455)		
Nearest 4			0.442	
			(0.456)	
5 km Buffer				0.695
				(0.472)
Log Dist. Cap	0.020	−0.016	−0.030	−0.028
	(0.184)	(0.190)	(0.193)	(0.198)
Log Pop.	2.104***	2.126***	2.181***	2.154***
	(0.125)	(0.127)	(0.132)	(0.130)
School Enrol	5.377**	4.938**	4.970**	4.902**
	(2.243)	(2.248)	(2.254)	(2.249)
Pct Elec.	1.470	1.466	1.376	1.165
	(1.616)	(1.617)	(1.659)	(1.646)
Sec. Enrol	−0.957	−0.986	−1.167	−1.115
	(3.428)	(3.101)	(3.098)	(3.122)
Alawi-Sunni Mix	1.245**	1.079*	1.177**	1.277**
	(0.581)	(0.584)	(0.592)	(0.591)
Pub Emp:D-M	−6.087***			
	(1.568)			
Pub Emp:D–W		−3.878***		
		(1.476)		
Pub Emp:T-N4			−3.511**	
			(1.445)	
Pub Emp:T-W5				−3.889***
				(1.460)
Constant	−24.595***	−23.514***	−23.606***	−23.334***
	(3.711)	(3.344)	(3.351)	(3.354)
Observations	2,631	2,631	2,631	2,628

Note: *p<0.1; **p<0.05; ***p<0.01

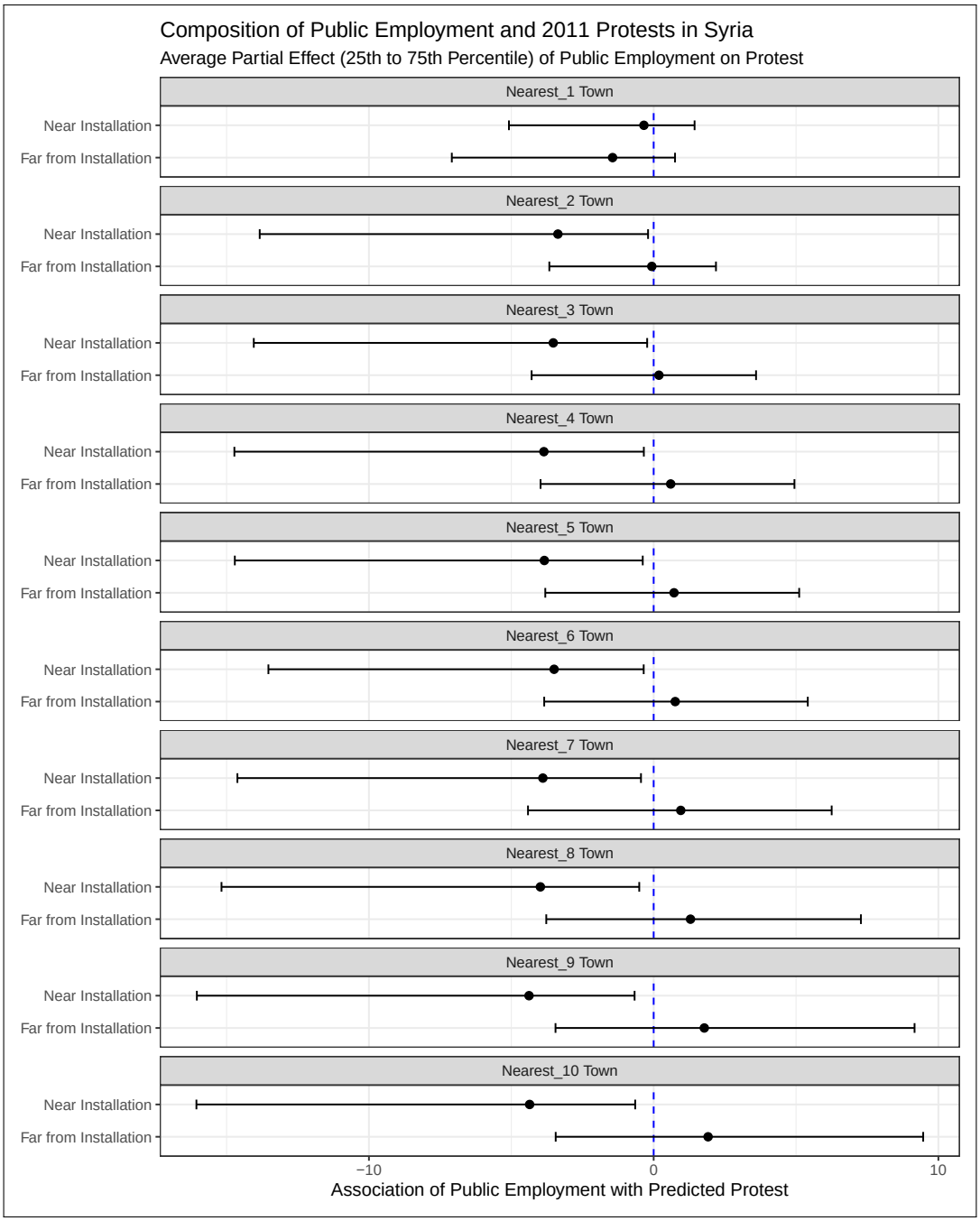

Figure A.5: This figure shows that the relationship between public employment, security installations and protest remains similar across different measures of "proximity," from the Nearest Towns to the 10th Nearest Towns to an Installation.

Table A.12: Public Employment, Protest, and Proximity to Security Installations across Measures of Proximity, including Kurdish communities.

	Town-Level Measures: Protest Outcomes			
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	−1.197	0.125	−1.185	−0.272
	(0.751)	(0.940)	(0.746)	(0.878)
Town - Nearest 4	−0.199	0.501		
	(0.228)	(0.421)		
Town - Within 5km			0.031	0.671
			(0.225)	(0.447)
Pub Emp:T-N4		−2.704**		
		(1.331)		
Pub Emp:T-W5				−2.465*
				(1.398)
Constant	−23.214***	−23.000***	−23.026***	−22.765***
	(3.505)	(3.437)	(3.523)	(3.455)
Covariates	Yes	Yes	Yes	Yes
Observations	3,209	3,209	3,206	3,206

	District-Level Measures: Protest Outcomes			
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	−1.161	2.643**	−1.243*	1.024
	(0.742)	(1.296)	(0.750)	(1.111)
District - Mazur	0.182	1.588***		
	(0.244)	(0.487)		
District - Wiki			−0.258	0.689
			(0.221)	(0.425)
Pub Emp:D-M		−5.381***		
		(1.552)		
Pub Emp:D-W				−3.690***
				(1.388)
Constant	−23.143***	−24.510***	−23.011***	−23.179***
	(3.561)	(3.718)	(3.484)	(3.384)
Covariates	Yes	Yes	Yes	Yes
Observations	3,209	3,209	3,209	3,209

Note: *p<0.1; **p<0.05; ***p<0.01

These regressions display the results of a Negative Binomial - 2 regression of the interaction between public employment and different measures of proximity to a security installation, including Kurdish communities.

Table A.13: Public Employment, Protest, and Proximity to Security Installations Identified as Nearest 4 Towns to Open Source Installation, Removing Border Outposts (n = 496)

	Dependent variable:			
	Protests Periods 1-2		Protests Periods 1-3	
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	−1.766**	−0.329	−1.039	0.490
	(0.861)	(1.158)	(0.755)	(0.954)
Town - Nearest 4	−0.100	0.587	−0.298	0.527
	(0.254)	(0.494)	(0.235)	(0.447)
Pub Emp:Nearest 4		−2.600*		−3.090**
		(1.551)		(1.373)
Constant	−23.746***	−23.770***	−23.217***	−23.188***
	(3.302)	(3.275)	(3.553)	(3.483)
Covariates	Yes	Yes	Yes	Yes
Observations	2,655	2,655	2,655	2,655
Note:				*p<0.1; **p<0.05; ***p<0.01

Table A.14: Public Employment, Protest, and Proximity to Security Installations Identified as Nearest 4 Towns to Open Source Installation, Removing Top-5 Most Deviant Pearson Residuals from Full-Period Regression with Interaction Term

	Dependent variable:			
	Protests Periods 1-2		Protests Periods 1-3	
	Base	Interactive	Base	Interactive
	(1)	(2)	(3)	(4)
Pub Employee	0.522*	0.648	−0.864	0.977
	(0.307)	(0.471)	(0.782)	(0.997)
Town - Nearest 4	0.232**	0.295	−0.308	0.655
	(0.108)	(0.209)	(0.238)	(0.458)
Pub Emp:Nearest 4		−0.198		−3.618**
		(0.565)		(1.410)
Constant	−22.713***	−22.772***	−23.933***	−24.038***
	(2.045)	(2.055)	(3.671)	(3.626)
Covariates	Yes	Yes	Yes	Yes
Observations	2,650	2,650	2,650	2,650
Note:				*p<0.1; **p<0.05; ***p<0.01

Table A.15: This regression removes the covariate of state electricity provision, for which there are 77 missing observations in the dataset. Across different measures of proximity, we see similar relationships between public employment, protest, and proximity to security installations at different measures of proximity.

	Dependent variable:			
	Protests Periods 1-3			
	(1)	(2)	(3)	(4)
Pub Emp.	2.663**	1.012	0.486	0.377
	(1.254)	(1.139)	(0.942)	(0.958)
District Security - Mazur	1.533***			
	(0.487)			
District Security - Wiki		0.478		
		(0.443)		
Town - Within 5km			0.586	
			(0.461)	
Town - Nearest 4				0.367
				(0.441)
Pub Emp:Dist - M	−5.357***			
	(1.531)			
Pub Emp: Dist-Wiki		−3.404**		
		(1.423)		
Pub Emp: Town - 5km			−3.137**	
			(1.404)	
Pub Emp: Town - Nearest 4				−2.824**
				(1.364)
Constant	−24.519***	−23.639***	−23.530***	−23.734***
	(1.993)	(1.931)	(1.916)	(1.920)
Covariates	Yes	Yes	Yes	Yes
Observations	2,734	2,734	2,734	2,734
Note:				*p<0.1; **p<0.05; ***p<0.01

A.7 Little Evidence of a Relationship between Protests, Security Installations, and Casualties

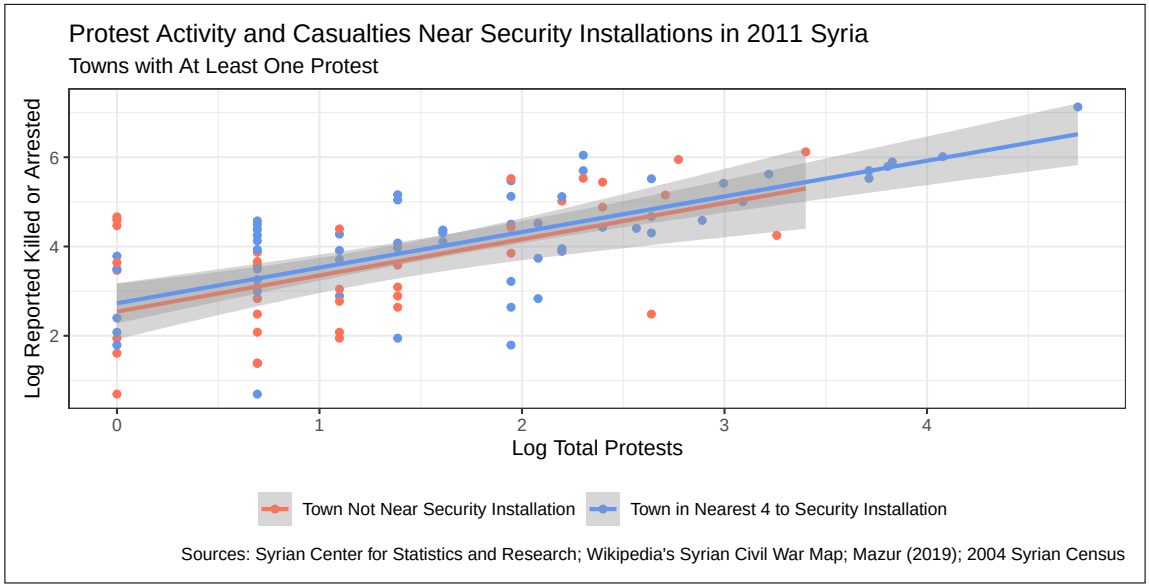

Figure A.6: This figure shows there is little evidence that towns near security installations that held protests faced greater violence than those towns holding protests further from those installations. The figure uses Syrian census and protest data (Mazur 2019), the location of security installations (Wikipedia Civil War Map) and documented casualties in Syria in 2011 (Syrian Center for Statistics and Research) to display the relationship - modeled as a linear regression - between total reported killed and arrested in the first year of the conflict, in communities hosting at least one protest. The analysis uses logged outcomes to account for the overdispersion of both protests and violence.

Proximity to Security Installation	Total Towns	Protests	Median Reported Killed (Per Protest)	Median Reported Arrested (Per Protest)
Outside of 4 Nearest Towns	65	2	5 (2.5)	26 (13)
4 Nearest Towns	66	5	11 (2.1)	49 (9.8)

Table A.16: [Sources: Mazur 2019, Syrian Center for Statistics and Research, Wikipedia Syrian Civil War Map] Casualty figures in Sunni towns reporting protests in 2011 show that casualties and arrests were similar in towns near to and far from security installations. I report median numbers because population, protests, and deaths are all highly right skewed. I report figures in small towns because of the relationship between security installations and total population reported above. I report median numbers because population, protests, and deaths are all highly right skewed. I report figures in small towns because of the relationship between security installations and total population reported above.