

The London School of Economics and Political Science

Mass politics and public opinion in MENA: Evidence from Egypt and Jordan

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Declaration

I certify that the thesis I have presented for examination for the Ph.D. degree of the London School of Economics and Political Science is solely my own work, other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified).

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I confirm that Chapter [2](#) was jointly co-authored with Dr. Neil Ketchley and I contributed 45% of this work. My contribution involved co-developing the theoretical argument, co-designing the empirical analyses, conducting quantitative and qualitative data collection, geo-coding protest event data, and co-drafting the manuscript.

Abstract

Each paper in this thesis investigates a different aspect of the relationship between public opinion and mass politics in the MENA region, using evidence from Egypt and Jordan. The first paper explores how protest shapes political attitudes during a democratic transition. Our results show that during the 2011 post-Mubarak transition, Egyptians came to hold less favorable attitudes to democracy following sustained protest in their district. We find that this relationship was principally driven by longer-lasting, static street protests that targeted public space. This study highlights one way in which popular support for democracy can be eroded during a transition.

MENA regimes also actively work to influence public sentiment during politically turbulent times. Recent research demonstrates that the Egyptian and Syrian regimes have used low-cost diversionary tactics to bolster public opinion toward the government when the threat of popular mobilization is high. To date, however, little is known about whether this tactic is effective due to the dearth of temporally granular public opinion data in non-democratic contexts. I overcome such data limitations by exploiting the unexpected occurrence of a low-cost diversionary foreign policy announcement made in Jordan during the fielding of a nationally representative survey on political attitudes. Despite presenting a “most likely” case, the announcement only led to a small rallying effect among those with lower levels of educational attainment. This highlights the limits of low-cost diversionary tactics.

The third paper draws on data from a unique two-wave, nationally representative survey fielded in Jordan during the largest labor protest in the country’s history to investigate the determinants of public support for mass anti-government mobilization. In doing so, it tests the implications of influential arguments from the MENA political economy literature on the authoritarian social contract. Educational attainment consistently emerges as the primary determinant of support for mass anti-government mobilization, consistent with some versions of modernization

theory. The findings also support the argument that dissatisfaction among white-collar state employees is associated with the erosion of the authoritarian social contract in MENA. I do not find support for the influential argument that the erosion of this contract is related to relative deprivation among the university educated.

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1 Introduction

While research on public opinion has historically focused on democratic settings, a growing body of scholarship shows that public sentiment is politically consequential in transitional and authoritarian regimes. In the context of the Arabic-speaking Middle East and North Africa (MENA) region, for example, it is well documented that both the Jordanian and Saudi Arabian regimes routinely monitor public opinion for the purposes of formulating public policy ([Gengler, 2021](#); [Gengler et al., 2021](#); [Pollock, 2021](#); [Radwan and Al-Hokail, 2021](#)). Increased interest in MENA public opinion over the past decade has been reflected in a proliferation of surveys measuring political attitudes in the region. During the early 2000s, fewer than three nationally representative surveys on political attitudes were conducted annually in the Arabic-speaking MENA, a number which witnessed a sharp increase after the 2011 Arab Spring uprisings. Over the past five years, the annual number of nationally representative surveys on political attitudes fielded in this region has averaged around fifteen ([Ketchley, 2022](#)). As [Gengler \(2021\)](#) has argued, the Arab Spring uprisings appear to have brought into sharp relief the relevance of citizens' political attitudes to MENA politics. In other non-democratic contexts too, scholarship has shown a clear link between mass politics and the salience of public opinion. Evidence suggests that non-democratic regimes are particularly sensitive to public opinion during periods when threats of popular mobilization are perceived to be high ([Chen et al., 2016](#); [King et al., 2013, 2017](#)), as well as particularly concerned with moulding public opinion during such periods ([Alrababa'h, 2021](#); [King et al., 2017](#)).

Each paper in this thesis investigates a different aspect of the relationship between public opinion and mass politics in the MENA region, using evidence from Egypt and Jordan. Importantly, public opinion data in the Arabic-speaking MENA continues to be scarce relative to most other regions ([Gengler et al., 2021](#)) and panel survey data on political attitudes remains non-existent in the region ([Ketchley,](#)

2022)).² To overcome these data limitations, I employ causal inference techniques as well as supplementing survey data with novel data sources to construct additional variables, validate identification assumptions and explore causal mechanisms. These data sources include quantitative data such as georeferenced protest event catalogs, newspaper text corpora and web search data, as well as qualitative data collected through fieldwork and from archival sources.

The first paper explores how protest shapes political attitudes during a democratic transition. Political science has long debated the significance of protest during a democratic transition, but attention has been largely confined to its impact on elite support for democracy. Contributing to scholarship on the attitudinal consequences of mobilization, we examine how protest shaped popular perceptions of democracy during the post-Mubarak transition in Egypt. We do this by matching Wave II of the Arab Barometer survey with georeferenced protest events reported in Arabic-language newspapers and employing an instrumental variable for causal inference. Our results show that Egyptians came to hold less favorable attitudes to democracy following sustained protest in their district. We find that this relationship was principally driven by longer-lasting, static street protests that targeted public space. Qualitative case details illustrate how such tactics could disrupt everyday life and impact livelihoods. This study highlights one way in which popular support for democracy can be eroded during a transition.

In addition to monitoring public opinion, MENA regimes also actively work to influence public sentiment during politically turbulent times. For example, recent research demonstrates that the Egyptian and Syrian regimes have used low-cost diversionary media rhetoric to bolster public opinion toward the government when the threat of popular mobilization is high (Arababa'h and Blaydes, 2020; Arababa'h, 2021). But despite the existence of voluminous academic literatures on diversionary

²A partial exception is that of the Survey of Young People in Egypt, a two-wave panel survey fielded between 2009-2014 which records information on a number of political variables. Importantly, this survey is not representative of the entire adult population. Rather, it comprises a nationally representative sample of those aged 10-29 and 14-35 for waves 1 and 2 respectively.

foreign policy and rallying around the flag, little is known about whether this tactic is effective. Notably, the study of rallying under authoritarianism has long been hindered by the dearth of temporally granular public opinion data in non-democratic contexts. The second paper overcomes such data limitations by exploiting the unexpected occurrence of a low-cost diversionary foreign policy announcement made in Jordan during the fielding of Wave V of the Arab Barometer survey. This serendipitous timing allows for use of an Unexpected Event during Survey Design (UESD) for causal inference. Despite presenting a “most likely” case, the announcement only led to a small rallying effect among those with lower levels of educational attainment. This highlights the limits of low-cost diversionary tactics. The empirical findings also caution against generalizations about the media dynamics of rallying under authoritarianism, as context-specific patterns of media consumption may produce substantively different effects.

The third paper leverages a unique dataset on attitudes to labor protest in Jordan to investigate characteristics of the social contract between citizens and the state in the country. Whereas political science has examined the determinants of protest participation in MENA, little is known about the factors which shape public opinion toward protest in the region. This study draws on data from a two-wave, nationally representative survey fielded in Jordan during the largest labor protest in the country’s history to investigate the determinants of public support for mass anti-government mobilization. In doing so, it tests the implications of influential arguments from the MENA political economy literature on the nature of the authoritarian social contract between citizens and the state. It also contributes to an emerging literature on support for labor strikes which has hitherto focused on advanced industrialized contexts. Educational attainment consistently emerges as the primary determinant of support for mass anti-government mobilization, consistent with some versions of modernization theory. The findings also provide support for the argument that dissatisfaction among white-collar state employees is associated with the erosion of the authoritarian social contract in MENA. In contrast, the

findings do not support the influential argument that the erosion of this contract is related to relative deprivation among the university educated.

The relationship between mass politics and public opinion in MENA is complex and multifaceted. This thesis aims to shed light on several critical aspects of this relationship using quantitative methods supported by qualitative case details. The cases studied herein highlight the bidirectional nature of this relationship. While manifestations of mass politics such as protest can shape citizens' political attitudes, elites simultaneously endeavor to influence public opinion in order to manage mass politics. However, my findings highlight the limits of low-cost elite tactics which seek to shape public opinion when domestic dissatisfaction is high. The findings of this thesis also illustrate how data on public opinion toward protest can provide insight into the political economy of authoritarian regimes. Finally, a cross-cutting theme of the findings presented in this thesis is the powerful role of educational attainment in moderating political attitudes in MENA.

2 Unpopular Protest: Mass Mobilization and Attitudes to Democracy in Post-Mubarak Egypt

2.1 Introduction

The relationship between street protest and democratization is a vexed one. A body of research finds that mass mobilization can fatally weaken an authoritarian regime and bring about a democratic breakthrough (e.g., [Bunce and Wolchik, 2011](#); [Kadivar, 2018](#); [Thompson, 2003](#)). By comparison, the role of protest during a subsequent democratic transition is much less clear-cut.³ Transitologists have argued that protesters should demobilize after an authoritarian has been ousted or risk alienating societal elites and soft-liners from the former regime (e.g., [Linz and Stepan, 1996](#); [O'Donnell and Schmitter, 1986](#); [Przeworski, 1991](#)). A second literature insists that continued protest can deepen the transitional process by forcing elites to make concessions, while checking authoritarian backsliding (e.g., [Bermeo, 1997](#); [Collier, 1999](#); [Kadivar and Ketchley, 2018](#)). Against this backdrop, it is surprising that little attention has been paid to how protest shapes popular attitudes to democracy over a transition. Political and economic dynamics during this critical period can affect how individuals perceive democracy ([Evans and Whitefield, 1995](#); [Mattes and Bratton, 2007](#)). And as [Meirowitz and Tucker \(2013\)](#) theorize, citizens can lose enthusiasm for democracy if they are negatively affected by new forms of democratic politics.

In this article, we examine how an unprecedented wave of protest shaped popular attitudes to democracy during the post-Mubarak transition in Egypt. Here we contribute to a new body of scholarship that seeks to understand protest not simply as an outcome to be explained but as a phenomenon that is itself generative of political attitudes (see, e.g., [Branton et al., 2015](#); [Mazumder, 2018](#); [Wallace et al., 2014](#)). To conduct our analysis, we combine an in-person survey fielded in Egypt after the

³By democratic transition, we mean a democratization process that begins with the ousting of an authoritarian and ends with the consolidation of democracy (see [Linz and Stepan, 1996](#)).

ousting of Husni Mubarak in 2011 with a georeferenced catalog of protest events reported in Arabic-language publications. The period between Mubarak’s departure and the deployment of the survey saw workers, activists, and local residents stage over 2,000 protests across the country. For identification, we use an instrumental variable that exploits respondents’ spatial relationship to protest ecologies that emerged during the January 25 Revolution.

Our results suggest that Egyptians came to hold more negative attitudes to democracy following sustained protest in their district. In such areas, survey respondents were more likely to associate democracy with economic and moral threat, indecisive government, and instability. Disaggregating our measure of mobilization, we find that this relationship was primarily due to protesters using longer-lasting, street-level tactics that disrupted public space. Qualitative case details attest to the fallout of this type of protest and suggest that popular disquiet was related to the negative impact of disruptive protest on livelihoods and the routine practices of everyday life.

In making sense of these findings, we argue that the high levels of mobilization witnessed in the post-Mubarak transition caused some Egyptians to update their view of how democracy functions in practice. Transitional periods are often low-information settings characterized by a high level of uncertainty in which citizens are forming opinions about the emerging nature of a democratic regime ([Mattes and Bratton, 2007](#); [Meirowitz and Tucker, 2013](#)). In such settings, direct experience can serve as a key source of, or shortcut for, information ([Mattes and Bratton, 2007](#)). Crucially, protest elicits concessions by inflicting a cost on authorities, and this can have knock-on effects for broader publics: roads and offices are blocked, businesses are closed, and public services are rendered unavailable. During the post-Mubarak transition, experience of sustained and disruptive street protest appears to have led some Egyptians to associate democracy with the negative externalities of mobilization.

2.2 Attitudinal consequences of protest

After several decades focusing on the drivers of mass mobilization, research on collective protest increasingly focuses on its consequences (for a review, see [Amenta et al., 2010](#)). A new strand of this literature focuses specifically on how protest shapes political attitudes. In the context of the 2006 Latino immigrant rallies in the United States, [Wallace et al. \(2014\)](#) investigate the differential effects of proximity to small- versus large-scale protests on feelings of political efficacy. Analyzing the same episode of protest, [Branton et al. \(2015\)](#) exploit a quasi experiment to show that the effect of protest on policy preferences depends on the local intensity of street-level activism. Looking at the effects of historic mobilization, [Andrews et al. \(2016\)](#) find that white Southerners held more positive attitudes to antisegregation protests in areas that saw a sit-in during the civil rights movement. Similarly, [Mazumder \(2018\)](#) argues that counties became more politically liberal as a consequence of hosting a civil rights protest. [Tertychnaya and Lankina \(2020\)](#) find that Russians living in regions with more antiregime protests held more negative attitudes toward the opposition if they received their news from state-controlled media outlets.

While all of these analyses suggest that the experience of protest can influence political attitudes, the generalizability of their findings remains limited in several ways. With the notable exception of the [Tertychnaya and Lankina](#) study, this genre of research remains overwhelmingly focused on protest in the United States, and so it remains unclear how these insights travel to contexts that are not mature democracies. Moreover, the literature has tended to study cases of low-level, episodic mobilization. This is convenient for quasi-experimental research designs, which exploit serendipitous contention that occurs while a survey is in the field. However, it is less clear how political attitudes will be patterned by more sustained mobilization or protest that occurs in politically unstable or recently authoritarian contexts. Our study expands research on the attitudinal consequences of protest to include the case of a transitional regime experiencing intense and protracted protest following

a democratic breakthrough.

2.3 Protest, attitudes, and democratization

Early research on third-wave democratization conceived of the process of democratic transition as one of bargaining between regime and moderate opposition elites over authoritarian exit. For democratization to succeed, transitologists argued, moderate opponents must enter into pacts with the business class, members of the security forces, and former regime soft-liners and guarantee that their interests and prerogatives will not be significantly diminished by new forms of civilian democratic authority (e.g., [O'Donnell and Schmitter, 1986](#); [Przeworski, 1991](#)). To avoid alienating those actors and empowering old regime hard-liners, protest movements agitating for social justice and other forms of redress must demobilize and shift their attention to participating in elections ([Linz and Stepan, 1996](#), 10).

If transitologists portray popular protest as either epiphenomenal or orthogonal to the successful unfolding of a democratic transition, another body of scholarship highlights the productive power of street protest in sustaining democratization after the ousting of an authoritarian. In her seminal study of third-wave democratization, [Bermeo \(1997\)](#) argued that episodes of protest not only failed to scotch democratic transitions but actually enhanced the bargaining position of moderate opposition figures in their negotiations with regime hard-liners. Similarly, [Ekiert and Kubik \(1999\)](#) showed that protest in Poland provided a key outlet for popular grievances, while also binding former communist hard-liners to the transition. In a recent study, [Kadivar and Ketchley \(2018\)](#) examined all 82 democratic transitions that occurred between 1980 and 2010 and found that unruly mobilization often forced old regime actors to make key concessions, thus deepening the democratization process.

While these literatures diverge on the effects of protest during a democratic transition, they agree on the underlying mechanism: protest inflicts a cost on elites by disrupting economic, political, and social life. Elites then use this information to

forecast how they will fare under a democracy. This leaves unexplained how the costs of protest pattern popular attitudes following a democratic breakthrough. A body of research suggests that nonelites also update their assessments of democracy during transitional periods, especially when the new modalities of politics significantly diverge from what came before (e.g., [Evans and Whitefield, 1995](#); [Mattes and Bratton, 2007](#); [Meirowitz and Tucker, 2013](#)). It is for this reason that a democratic transition has been characterized as a learning process in which citizens adjust their assessments of democracy depending on how it is perceived to perform in practice. Importantly, in transitional settings, where much is in flux, signals from government officials and politicians tend to be inconsistent or unreliable. In consequence, as [Mattes and Bratton \(2007\)](#) show, direct experiences of the perceived functioning of democracy can be particularly formative.

Following [Tertychnaya and Lankina \(2020\)](#), who conceptualize protest as a source of information, we suspect that the level of local mobilization during a transition may feature as a heuristic that individuals draw on to form opinions about the quality of governance in a future democratic regime. One observed implication from the transitology literature is that personal dissatisfaction arising from protest could translate into more negative assessments of democracy as a whole. Our expectation about the direction of this relationship is also informed by the case literature from the 2011 Arab Spring. [Bayat \(2017, 211\)](#) posits that where the daily disruption of intense and protracted protest was combined with economic strain, a general mood emerged “in favour of order, stability and a desire for a resolute, even repressive leader.” [Tripp \(2013, 210\)](#) theorized that mass mobilization was likely to be subject to “dramatic decay.” Sustained protest, while initially generative of excitement and anticipation, would quickly be greeted with cynicism and disenchantment with political change. So too, [Arslanalp and Pearlman \(2017, 317\)](#) cautioned that sustained mobilization could provoke fear and uncertainty, and so lead to popular support for old regime actors to intervene into the transitional process under the guise of restoring stability. [Mazaheri and Monroe \(2018\)](#) provide the only systematic evidence for this dynamic.

Using survey data, they show that Arab business owners held less favorable views of democracy in countries that saw protest post-2011.

If the knock-on effect of local mobilization shapes individuals' perceptions of how democracy performs in practice, we hypothesize that any link between protest and political attitudes will geographically cluster in areas that see more mobilization. A one-off protest is not likely to have much of an effect; however, daily protest in the same place over a prolonged period may. In what follows, we test this claim by exploring the attitudinal consequences of mobilization during the post-Mubarak transition in Egypt in 2011.

2.4 Protest and democratic transition in Egypt

The years leading up to Egypt's democratic breakthrough saw ongoing protests by a range of actors. However, the scale of mobilization witnessed in Egypt following the fall of Hosni Mubarak in February 2011 represented a quantitative shift in Egyptians' experience of street-level activism. To contextualize and supplement our statistical analyses, we use event data and the case literature to outline the characteristics of street protests during Mubarak's tenure and provide an overview of the wave of mobilization that broke out during the post-Mubarak transition. We then introduce interview testimony, survey data, and other qualitative evidence to provide support for our hypothesis that protest can feature as a negative externality for broader publics during a democratic transition.

Protest under authoritarianism

The decade before the 2011 Arab Spring saw the emergence of new forms of oppositional politics in Egypt. In the early 2000s, support for the second Palestinian Intifada and opposition to the US-led invasion of Iraq led to the formation of new activist networks encompassing both secular and Islamist forces. These new connections led to petition campaigns and a series of small-scale protest initiatives that drew in university students and activist groups ([Clarke, 2011](#); [Gunning and Baron,](#)

2013, chaps. 1-3). Still, this protest never scaled up to levels that threatened the regime or inflicted significant disruption. As Bishara (2015, 966) notes of mobilization under the Mubarak regime, street-level protest remained spatially contained and rarely lasted for more than a few hours (see also Bayat, 2010, 212). Coeval to the emergence of these new protest initiatives was an upsurge in strike activity. Under the Mubarak regime, the Egyptian Trade Union Federation was the only legal trade union structure, and it worked to protect the interests of the state (Beinin and Duboc, 2013, 207). Still, labor strikes became increasingly frequent from the mid-2000s onward, culminating in the formation of a nascent independent trade union movement spearheaded by Egypt's tax collectors (Beinin and Duboc, 2013). But in the absence of national unions to coordinate strike action, much of this activism remained confined to individual workplaces and was circumscribed in terms of its duration and disruption (Barrie and Ketchley, 2018, 182-84).

Protest after the breakthrough

If protest during the final decade of the Mubarak regime Egypt was episodic, localized, and relatively small in scale, this was to change dramatically in the aftermath of January 25, 2011, when several thousand activists outmaneuvered Interior Ministry-controlled security forces to stage a protest in Midan al-Tahrir in downtown Cairo. This marked the beginning of 18 days of energetic and bad-tempered protests in the streets and squares of Egyptian towns and cities calling for the downfall of the Mubarak regime (Gunning and Baron, 2013). During this period, a quarter of Egypt's police stations were burned down amid protests that saw local residents and activists inflict a bottom-up defeat on Mubarak's security apparatus (Ketchley, 2017, chap. 2). Mubarak's resignation on February 11, 2011, would mark the beginning of a parlous democratic transition that unfolded under the direction of the Supreme Council of the Armed Forces (SCAF). In the immediate aftermath of Mubarak's departure, the SCAF promised to hold competitive parliamentary and presidential elections, as well as a referendum to amend the constitution. However,

far from containing protest, the transfer of power to a transitional authority unleashed a wave of daily protests across the country, as workers, residents, activists, and university students took to the streets (see [Barrie and Ketchley, 2018](#)).

The scale of protest during the post-Mubarak transition can be described using event data. In November 2010, two months before the outbreak of the January 25 Revolution, *al-Masry al-Youm*, at that time Egypt’s largest and most reliable private newspaper, recorded 115 protests nationwide. For March 2011, two months after protesters first reached Midan al-Tahrir and more than a month after the ousting of Husni Mubarak, the same source reported on 655 protests, representing a nearly sixfold increase. As one prominent activist observed in the aftermath of Mubarak’s ousting: “I used to hunt for where protests are, now everywhere I go there is one” (cited in [Shenker, 2016](#), 250). Not only was there a dramatic uptick in the frequency of mobilization, but protests also became much larger and lasted longer. In November 2010, protests only very rarely exceeded a few hundred protesters and typically ended within a few hours; by March 2011, events regularly attracted several thousand participants and could last for days or weeks. Particularly notable is the relative absence of organized political Islam from this activism. Having participated in the January 25 Revolution, the Muslim Brotherhood, Egypt’s largest social movement, endorsed the SCAF-run transition and demobilized to concentrate on elections (see [Ketchley, 2017](#), chap. 4). And so while the Brotherhood opted to pursue their interests through the ballot box, non-Islamist actors, including workers, students, and local residents, came to rely on street protest to advance their agenda.

Unpopular protest

There is good reason to think that this wave of mobilization may have affected political attitudes. In the weeks after Mubarak’s ousting, local newspapers record the first of a series of “anti-protest protests” by shopkeepers and local residents in Cairo, who complained that ongoing street-level mobilization was disrupting business and the flow of traffic in major thoroughfares ([al-Masry al-Youm, 2011a](#), 4; [2011b](#), 6;

2011c).⁴ In several of these early episodes, antiprotesters clashed with activists, who insisted that continued protest was necessary to deepen the gains from Mubarak’s ousting. Media accounts of attempts by the military authorities to clear the protest occupation in Midan al-Tahrir also document disquiet about further mobilization. In early August 2011, shopkeepers and local residents are recorded as cheering as soldiers dismantled tents in an attempt to rid the square of protesters ([Christian Science Monitor, 2011](#)). Citing traffic problems and the cost to the local economy, one local grocer insisted that “they [the protesters] must go home and give things a chance to get better.... The sit-in makes things worse” (cited in [Christian Science Monitor, 2011](#)). This sentiment is reflected in public opinion data: across three separate surveys fielded in the summer of 2011, a majority of Egyptians identified continued protest as negatively affecting the country ([Younis and Younis, 2011](#)).

Disruptions in public service provision caused by protests also elicited public hostility. During a nationwide walkout by doctors and nurses in public hospitals in May 2011, Egyptian newspapers reported confrontations between hospital workers who staged sit-ins in front of hospital entrances and patients in several governorates ([al-Masry al-Youm, 2011f](#)). Similarly, in June 2011, microbus drivers in the Nile Delta city of Mansoura attacked hospital workers who had blockaded a main road ([al-Dostor, 2011](#)). Local media also documented physical altercations during a nationwide strike by government teachers in September. In the governorates of Suez and Beni Suef, parents are recorded as attacking teachers with bricks as they staged sit-ins, leading to the hospitalization of a headteacher ([al-Masry al-Youm, 2011g](#)).

Economic fallout from protest features in many of these accounts. As [Chalcraft \(2014, 179\)](#) suggests, economic precariousness led many Egyptians to associate ongoing protest with socioeconomic threat and insecurity (see also [Abdelmonem et al., 2015, 56](#)). In one notable episode in Aswan, 600 workers employed in Egypt’s tourism industry took to the streets to demand an end to further protest and the return of

⁴This was a recurring complaint during the transition. In a survey fielded in Cairo in early 2012, 20% of respondents identified traffic jams caused by protests as a source of stress and inconvenience (see [Abdelmonem et al., 2015, 50](#)).

stability amid falling hotel occupancy rates ([al-Ahram al Massa'i, 2011](#)). As one participant insisted: “it is time for life to return to normal, like before the 25th January [Revolution]” (cited in [al-Ahram al Massa'i, 2011](#)). In Damietta, where a local fertilizer factory was shut down after residents blockaded roads and staged sit-ins in protest of its environmental impact, factory workers staged a counterprotest criticizing the demonstrators and calling for the reopening of the factory. In an interview, one factory worker commented, “It won’t work to go on like this, that every time a group goes out and stages protests we shut factories down for them.... We would end up closing all of Egypt’s workshops and factories, then all of Egypt will end up sitting at home.... Most of the young men you see here [at the counterprotest] took part in January 25th. Now we curse the day January 25th happened, even though we were in Midan al-Tahrir” ([al-Wafd TV, 2011](#)).

A similar dynamic has been noted for Egypt’s “revolution-weary middle class” ([Kandil, 2013, 18](#)), who yearned for the stability and prosperity of the Mubarak era. This point is echoed in journalistic accounts of the transition, with residents calling for a strongman to curb protest amid increasing economic hardship (see [Steavenson, 2015, 80-81](#)). Faced with mounting public criticism, several secular parties and activist movements announced that they would temporarily suspend their participation in protests, so as to minimize disruption to the local economy ([al-Masry al-Youm, 2011d, 2011e](#)). The Muslim Brotherhood also picked up on popular disquiet about protest. Writing in its newspaper, the Brotherhood argued that “the people must protect the revolution by policing the political process and ceasing unnecessary protests and strikes.... This way, the people can visualize a safe and secure exit from the transitional period” (cited in [Ketchley, 2017, 93](#)).

While inevitably only a partial record of this period, these developments do point to an important precondition anticipated in our hypothesized relationship between high levels of protest and political attitudes during a transition. In Egypt, a recently authoritarian context where protest was hitherto small-scale and contained, sustained street-level mobilization had documented knock-on effects for broader

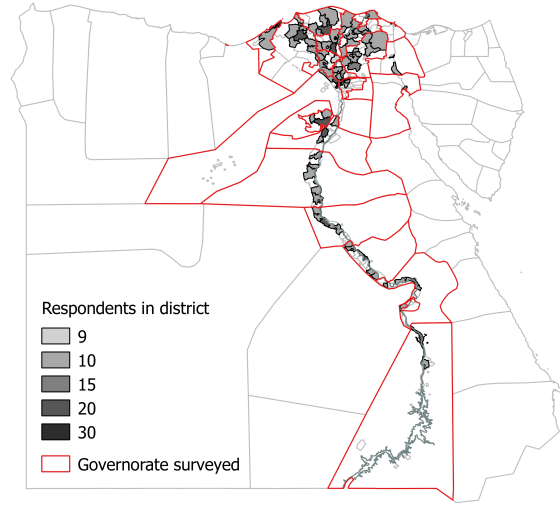
publics, with many contrasting the upsurge in protest with life before the democratic breakthrough. And as the case details presented above suggest, this effect was sufficiently pronounced such that those affected by mobilization took to the streets to call for an end to further protest, while political parties demobilized for fear of alienating public opinion.

2.5 Data and method

To study the effect of this protest on Egyptians' attitudes to democracy, we draw on the Arab Barometer survey and an event catalog of protest events recorded in Arabic-language newspapers. The Arab Barometer is a face-to-face survey conducted in Arabic. In total, 1,219 survey respondents were randomly selected from stratified sampling blocks; respondents came from 113 districts in 21 of Egypt's 27 governorates. Figure 2.1 shows the distribution of survey respondents by census district. (Note that the Arab Barometer does not survey the country's sparsely populated border governorates). The survey was in the field from June 16 to July 3, 2011. This is ideally suited for our purposes. Egypt's democratic transition began on February 12, 2011, following the resignation of Hosni Mubarak the day earlier. The subsequent period saw an unprecedented wave of mass protest as workers, activists, students, and local residents took to the streets. Importantly, the Arab Barometer was fielded before the election of an Islamist-dominated parliament and a Muslim Brotherhood candidate as president. This allows us to estimate the effect of protest on attitudes to democracy independent of popular misgivings about the subsequent performance of Egypt's newly elected democratic institutions.

To account for variation in the incidence of protest, we draw on a catalog ($N = 2,021$) of protest events between February 12 and June 15, 2011, hand coded from two Arabic-language Egyptian newspapers, *al-Masry al-Youm* and *al-Shorouq*. These were two of the largest private newspapers in Egypt during this period, and both devoted considerable attention to chronicling local mobilization after Mubarak's ousting. When collecting our event data, we recorded who organized the protest,

Figure 2.1: 2011 Arab Barometer survey respondents by district

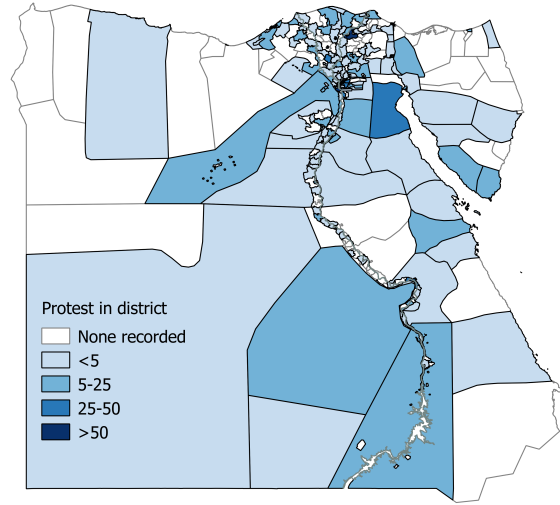


their repertoire, and the number of participants.⁵ Events were then individually geolocated and assigned to their census district using a shape file (see fig. 2.2). For mobile protests such as marches and demonstrations, we geolocated the starting point of a protest. In total, 1,963 events (97% of all protest reported) can be reliably assigned to their census district. Of these, 1,727 protest events (88%) can be georeferenced to their exact location. On 236 occasions (12% of all geolocatable events), newspaper reporting only mentioned the village or district in which the protest occurred. For these cases, we assigned the protest to the village or district centroid. Our event data provide substantially greater coverage than any other comparable protest data set that is available for Egypt during the post-Mubarak transition. To give a comparison: the Armed Conflict Location and Event Dataset, which draws on English-language media reports, captures 230 protest events for this period. The most recent version of the Nonviolent and Violent Campaigns and Outcomes Data Project (NAVCO 3.0), which also relies on English-language media sources, contains records for only 102 protests.

We also draw on a separate catalog of protests in Egypt from September 2010 to the outbreak of the January 25 Revolution, derived from the Egyptian newspaper

⁵Sometimes protest participation was not reported. In such cases we impute size from the repertoire using the coding rules set out in [Ketchley \(2017, 166\)](#).

Figure 2.2: Protest events in district, February 12-June 15, 2011



al-Masry al-Youm. This allows us to account for any historic protest in a district in the period before Egypt’s democratic breakthrough. To measure the destabilizing effect of the Revolution itself, we draw on a list of police stations attacked during the 18 days of protest (compiled by [Ketchley, 2017](#), chap. 2). The 2006 Egyptian census (the most recent census at that time) provides demographic information that accounts for population characteristics. Finally, we also use the [WikiThawra \(2013\)](#) data set that provides information on the home districts of protesters killed during the anti-Mubarak mobilization.

Dependent variable

Our unit of analysis is a survey respondent located in his or her census district; missing observations at the individual level reduce the sample size to 1,040 individuals. Our main outcome of interest is a composite measure of attitudes to democracy using questions from the 2011 Arab Barometer. Here we take inspiration from [Doherty and Schraeder \(2018\)](#) and [Hoffman and Jamal \(2014\)](#) in analyzing a mean index of agreement with four statements designed to capture attitudes to democracy: “Under a democratic system, the country’s economic performance is weak,” “democratic regimes are indecisive and full of problems,” “democratic systems are not effective at maintaining order and stability,” and “democracy negatively affects

social and ethical values in your country.”⁶ This index is coded 0-4, with higher values indicating more favorable attitudes to democracy (app. fig. 2.6 shows the distribution of respondents’ attitudes; the appendix is available online). The index has a high coefficient of reliability ($\alpha = .85$), and this provides confidence that these questions meaningfully capture the same underlying phenomenon.⁷ Ordinary least squares (OLS) regression models this as

$$(1) \quad y_{idg} = \alpha P_{id} + X_{id} + \delta_g + \epsilon,$$

where y_{idg} is the mean index of attitudes to democracy for survey respondent i located in census district d in governorate g , P_{id} is a count of protest events in a survey respondent’s census district, X_{id} is a vector of respondent- and district-level controls, and ϵ is the error term. In Egypt, public services and local government functions are coordinated and delivered at the governorate level. To account for subnational variation in the quality of these services, as well as other between-governorate differences that are not captured by our control variables, a fixed intercept, δ_g , is included in the regression, which absorbs the unique characteristics of each governorate.⁸ Analysis is thereby confined to variation in respondents’ attitudes across districts within each governorate. The coefficient of interest throughout the analysis is α , the effect of protest on attitudes to democracy. Following [Abadie et al. \(2017\)](#), standard errors are clustered at the treatment (census district) level.

⁶To negate acquiescence bias, a positively framed question was introduced after the third question. Reassuringly, the mean difference in scores for the third and the fourth questions in our index is not statistically different from zero.

⁷As per [Doherty and Schraeder \(2018\)](#), we coded “don’t know” and other missing values to the midpoint of the scale, in order to preserve sample size. Our results are not altered if we use multiple imputation or drop “don’t know” responses.

⁸The intraclass correlation obtained from the null model shows that 11% of variation in attitudes to democracy is explained by between-governorate differences. The chi-squared statistic from a likelihood-ratio test confirms that a multilevel structure is appropriate (LR = 82.69, $p = .000$).

Independent variable: Local protest

To account for the effect of protest on attitudes to democracy, we can locate survey respondents in their census district. As previously noted, the survey was fielded from June 16 to July 3, 2011. Unfortunately, the exact date that respondents were surveyed is not recoverable (Michael Robbins, pers. comm., December 28, 2018). To ensure that we are not capturing posttreatment protest, we measure mobilization in respondents' districts between the beginning of the democratic transition and June 15, 2011; the event catalog records protest in the home districts of 889 survey respondents (73%). The mean number of protests in a respondent's district during this period was 5; the maximum was 77. Our measure of protest is therefore a count of protest events in a census district. We expect that the effect of protest will have diminishing marginal returns, and so we transform this to the square root.⁹ In subsequent analyses, reported after our main results, we test alternative protest measures and disaggregate the effects of protest by repertoire, sector, and participation.

Instrumental variable: Distance to a focal point

We are concerned that an individual's propensity to encounter protest may be endogenous to his or her assessment of democracy. We therefore incorporate a two-stage, instrumental variable design into our analysis. Specifically, we hypothesize that experience of protest during the post-Mubarak democratic transition was likely influenced by protest ecologies that emerged during the 18 days of the January 25 Revolution, when public squares and major thoroughfares—most famously Midan al-Tahrir in downtown Cairo—emerged as focal points for mobilization in governorates across the country (Gunning and Baron, 2013). To help us identify focal points, which we define as the most frequently recurring location for street protests in a governorate during the January 25 Revolution, we drew on event data derived from

⁹We also tested an unbounded count and other functional forms; all produce statistically and substantively similar results.

Arabic-language newspapers collected by [Ketchley \(2017\)](#).

In the post-Mubarak period, these spaces were frequently memorialized in local media reporting as “squares of the revolution” and continued to serve as focal points for collective protest during the transition (see [Barrie and Ketchley, 2018](#); [Ketchley, 2017](#), chaps. 4 and 5). Here protesters from across the political spectrum followed a repertoire in which protests set off from mosques and other associational spaces moved through commercial and residential areas, before arriving at a focal point for protest. Areas in and around focal points also became sites for mobilization. We exploit this convenient feature of Egyptian contentious politics to account for possible endogeneity and omitted confounders. In this, our instrumental variable regression employs an exclusion restriction similar to that adopted by [Acemoglu et al. \(2001\)](#): conditional on a vector of individual- and district-level controls included in the regression, survey respondents living closer to a focal point will be more likely to encounter protest than those living farther away, simply as a result of their proximity. It follows that shorter distances to a focal point will be more likely to receive the treatment effect.

This logic is illustrated in figure 2.3, which records survey respondents’ spatial relationship to Midan al-Tahrir in downtown Cairo. We hypothesize that survey respondents living in Sayeda Zainab (marked with the letter A in fig. 2.3) saw more protest than respondents in Shubra (shown as B), in part, because they lived closer to a focal point. We measure this as the distance in kilometers from a district centroid to the nearest focal point; the mean distance was 20 kilometers, while the maximum was 101 kilometers. Again, we expect that the effect of distance to a focal point is subject to diminishing marginal returns, and so we transform this variable to the square root.¹⁰ Two-stage least squares (2SLS) estimates of equation (1) are presented below. Our counts of protest activity in a survey respondent’s district, P_{id} , are treated as endogenous to a respondent’s assessment of democracy, and so

¹⁰Distances are great circle. Our instrumental variable regressions are robust to an untransformed measure of distance, as well as alternative functional forms.

Figure 2.3: Focal point and survey respondents' districts in Greater Cairo

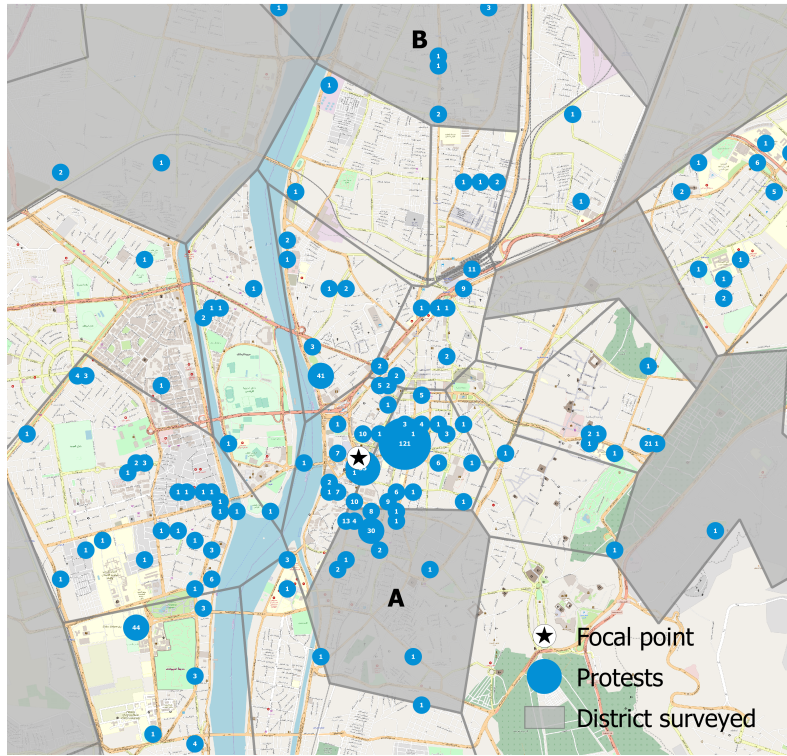
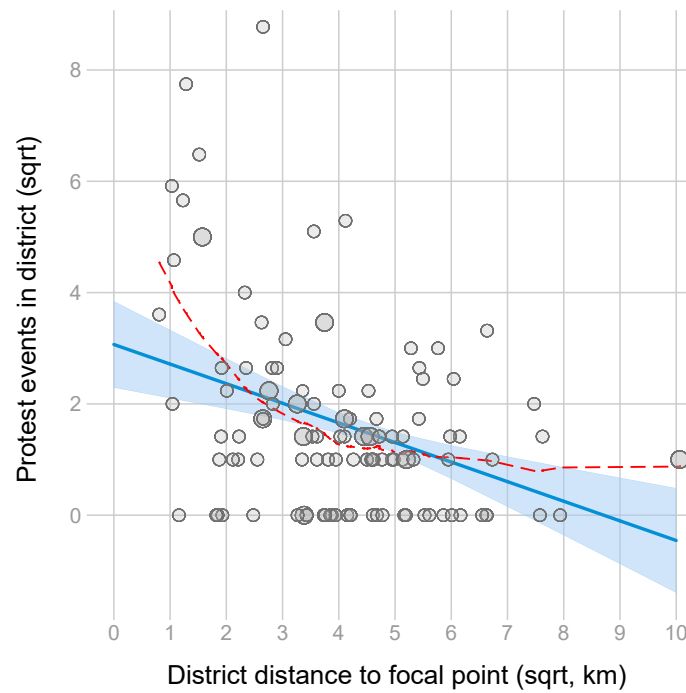


Figure 2.4: First-stage estimates. *Solid line*, ordinary least squares regression. *Dashed line*, locally weighted scatter plot smoother. Points are the real values with size proportional to the number of survey respondents in a district.



modeled as

$$(2) \quad P_{id} = \beta D_{id} + X_{id} + \delta_g + \nu,$$

where D_{id} is the distance between a survey respondent's district and a focal point for mobilization.

Table 2.1 provides a series of reduced-form tests of our instrumental variable on the occurrence of protest, as well as a test including controls (detailed below) equivalent to the first stage of the 2SLS regression. As the OLS estimates show, our intuition that proximity to a focal point conditions the likelihood of protest receives confirmation: increasing distance to a focal point significantly and substantively reduces the frequency and scale of protest in a district. Figure 2.4 provides a visualization of the first-stage estimates from model 4. To give an illustration: increasing the distance to a focal point from 1.6 (the 5th percentile) to 45.3 kilometers (the 95th percentile) reduces the predicted incidence of protest in a census district by 73%.

For our instrumental variable to be valid, not only must it affect the likelihood of respondents receiving the treatment, but the political composition of districts that are more proximate to focal points must not systematically differ in ways that might affect attitudes to democracy and that are not blocked by controls. Table 2.2 probes this with several bivariate placebo tests.¹¹ The outcome measures are taken from the 2005 parliamentary elections (the last semicompetitive elections before the 2011 transition). The result from model 5 shows that distance to a focal point does not contribute significantly to the election of a member of Parliament (MP) from Mubarak's National Democratic Party (NDP). Similarly, model 6 suggests that our instrument does not significantly predict the presence of a strong NDP electoral machine, as proxied by an NDP politician being elected without having to go into a second-round runoff. Finally, as per model 7, distance to a focal point is not

¹¹Note that we use placebo checks as there is currently no statistical test for the exclusion restriction of a continuous endogenous variable (see Günsilius, 2018).

statistically related to the election of a Muslim Brotherhood MP.

Table 2.1: Effect of Distance to a Focal Point on Protest in a District

| | Model 1 | Model 2 | Model 3 | Model 4 |
|--------------------------------------|--------------------|--------------------|--------------------|--------------------|
| Distance to a focal point (sqrt, km) | -.366*** (.103) | -.396*** (.117) | -.340*** (.091) | -.352*** (.102) |
| X_{id} | | | ✓ | ✓ |
| δ_g | | ✓ | | ✓ |
| R^2 | .15 | .30 | .40 | .51 |
| N | 1,219 | 1,219 | 1,040 | 1,040 |

Note. Ordinary least squares regression; cluster-robust standard errors in parentheses; two-tailed p -values.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

Table 2.2: Effect of Distance to a Focal Point on a District's Political Composition

| | Model 5 NDP elected | Model 6 NDP strong | Model 7 MB elected |
|--------------------------------------|------------------------|-----------------------|-----------------------|
| Distance to a focal point (sqrt, km) | .017 (.028) | -.019 (.021) | -.008 (.026) |
| R^2 | .004 | .010 | .001 |

Note. Ordinary least squares regression; cluster-robust standard errors in parentheses; two-tailed p -values. NDP = National Democratic Party; MB = Muslim Brotherhood. $N = 1,219$.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

Controls

To account for factors associated with both a respondent's attitude to democracy and relationship to protest, we include in the model a vector of individual- and district-level controls (app. tables 2.4 and 2.5 are the descriptive statistics and the correlation matrix). Prior research has found relationships between support for democracy in the Middle East and North Africa (MENA) region and a range of demographic factors (see, e.g., [Al-Ississ and Diwan, 2016](#); [Jamal, 2006](#); [Mazaheri and Monroe, 2018](#); [Tessler, 2002](#)). Following that literature, we enter variables for

a respondent's age, age squared, gender, religion, religiosity (measured as how often an individual reads a religious text), level of education, employment status, business ownership, and income (transformed by taking its logarithm to the base 10).

We also control for a range of individual- and district-level characteristics that may be correlated with a respondent's attitude to democracy and the likelihood that he or she will encounter protest. We expect that protest will be more likely in built-up urban areas, and so we enter a variable measuring a district's population density, in thousands per kilometer, and a dummy variable for whether that district is urban. We also expect that there will be more opportunities to protest in the capital city, where there may also be more support for democracy, and so we measure a district's distance in kilometers to central Cairo, transformed to the square root. To account for districts with a recent history of mobilization, we enter a dummy variable for whether any protest occurred in a survey respondent's district in the four months before the January 25 Revolution. The number of protesters from a district killed during the January 25 Revolution allows us to control for protest-prone populations with ongoing grievances, again taken to the square root. To capture the destabilizing effects of the January 25 Revolution and ongoing opportunities to protest, we enter a dummy variable for whether the police station was attacked in a respondent's district during the 18 days of mobilization.

The Arab Barometer contains a number of questions that capture attitudes toward both protest and democracy from which we construct a series of additional control variables. If Egyptians updated their assessment of democracy because of protest, this is self-evidently conditional on the degree to which they perceived Egypt to be democratizing following Mubarak's ousting. To account for this, we enter an ordinal variable that records respondents' assessment of Egypt's democratic development at the point when they were surveyed. To capture prior support for authoritarianism, we enter a dummy variable for survey respondents who sided with the Mubarak regime during the January 25 Revolution. To capture prior attitudes to procedural democracy, we control for whether a survey respondent voted in previous elections.

Table 2.3: Effect of Protest on Attitudes to Democracy

| | Model 8 | Model 9 | |
|-------------------------------------|-----------------------|---------------------|-----------------------|
| | No instrument: OLS | First Stage: OLS | Second Stage: 2SLS |
| Protest events (sqrt) | -.046*** (.016) | | -.139** (.063) |
| Distance to focal point (sqrt, km) | | -.352*** (.102) | |
| X_{id} | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ |
| R^2 | .24 | ... | ... |
| Kleibergen-Paap Wald F -statistic | ... | 12.01 | ... |

Note. Cluster-robust standard errors in parentheses; two-tailed p -values. OLS = ordinary least squares; 2SLS = two-stage least squares. $N = 1,040$.

* $p < .10$.

** $p < .05$.

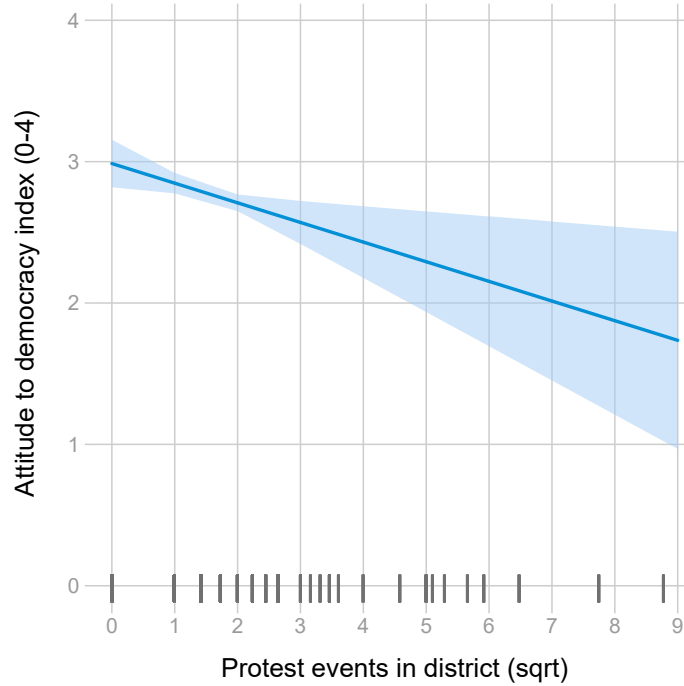
*** $p < .01$.

To control for attitudes to protest, we enter dummy variables for respondents who participated in the January 25 Revolution or who provided material support to the revolutionaries, as well as a dummy variable for respondents who reported protesting during the post-Mubarak transition. Finally, state media in Egypt demonized both the January 25 Revolution and calls for political liberalization ([Lindsey, 2011](#)), and so we construct a dummy for whether a respondent reported a state media outlet as his or her principal news source.

2.6 Results

Table 2.3 shows our initial results. Model 8 begins with the OLS coefficients. Our hypothesis that the level of local protest adversely affects attitudes to democracy receives initial support: when comparing respondents from the same governorate, Egyptians living in districts with more protest held more negative attitudes to democracy. The effect size is non-trivial. To give an illustration: moving location

Figure 2.5: Effect of protest on attitudes to democracy



from a district at the 5th percentile of protest to a district at the 95th percentile of protest is associated with an 8.5% reduction in how respondents scored democracy.

Model 9 introduces our instrumented regressor, with coefficients from both the first-stage OLS and second-stage 2SLS estimates reported.¹² When compared to model 8, the estimated 2SLS coefficient is larger and equivalent to the local average treatment effect. Our hypothesis receives further support: respondents living in districts with higher rates of protest held significantly and substantively less favorable perceptions of democracy when compared to respondents from the same governorate who lived in districts with lower rates of protest. Figure 2.5 shows the marginal predicted effect of protest using estimates from model 9, with all other covariates held at their mean values. A rug plot shows the marginal distribution of protest on the X-axis. The confidence intervals are larger at higher values, as very intense protest is concentrated in just a few districts, and so information is more sparse. Increasing

¹²A digression on regression diagnostics is germane: the cluster-robust F -statistic is greater than 10, Kleibergen-Paap's LM statistic for underidentification is statistically significantly different from zero, and Hansen's J statistic is statistically significant.

the scale of protest in a district from the 5th to the 95th percentile is associated with a 24% decrease in how respondents scored democracy. This association is even more pronounced at higher values. For survey respondents at the 99th percentile—indicating an individual living in a district where there was a protest nearly every other day averaged over a four month period—the estimated score is reduced by 36%.

Models 10-17 in appendix tables 2.6 and 2.7 provide an alternative analysis, decomposing our dependent variable into its constituent questions. Decomposing our dependent variable provides confidence that no single question is driving our findings. The effect of protest on each measure of democracy is modeled using both OLS and 2SLS instrumental variable regressions. In models 16 and 17, the coefficients are negative but are not statistically significant ($p = .18$ and $p = .10$, respectively).¹³ In all other models, higher rates of protest in a census district are negatively and significantly associated with a respondent’s assessment of democracy. In the OLS models, a greater incidence of protest is particularly associated with democratic regimes being perceived as indecisive and ineffective at maintaining order. In the 2SLS models, higher levels of protest are most strongly associated with democracies having weaker economies, a point that we return to after our robustness checks. These results suggest that within four months of Mubarak’s ousting, Egyptians living in high-protest districts were more likely to associate democratic regimes with a range of negative characteristics.

2.7 Robustness and alternative specifications

Appendix tables 2.8-2.13 provide checks for the robustness of our findings, as well as alternative specifications. One obvious concern relates to missingness. List-wise deletion removes 179 survey respondents (14% of the sample) from our analysis. To ensure that our findings are not artifactual of this process, we use multiple imputation to account for missing information. The results are reported in model 18. Reassuringly, after recovering information lost because of incomplete observations,

¹³Note that the effect of protest in both models is significant at margins ($p = .001$).

the number of protest events in a district remains significantly negatively associated with attitudes to democracy.

So far, our analysis has looked at the absolute rate of protest. Following [Abadeer et al. \(2022\)](#), we can also look at changing experiences of protest in a district using prebreakthrough levels of mobilization as the baseline. To do this, we subtract the daily rate of protest in a district in the four months before the January 25 Revolution from the daily rate of protest in a district during the four months of the transition. The results, reported in models 19 and 20, show that an increase in the incidence of protest in a district relative to the Mubarak-era baseline is associated with significantly less favorable attitudes to democracy. Further tests, shown in models 21-24, include alternative specifications of our main protest variable. As outlined earlier, the 2011 Arab Barometer does not record the precise date that survey respondents were interviewed. In consequence, we measured mobilization in a census district between the first day of the democratic transition and the day before fielding the survey. This excises the effect of any protest that occurred during the survey period. To account for this, in models 21 and 22 we enter control variables for protest events that occurred in a district during the survey period. In models 23 and 24, we test an alternative variable that captures all protest between February 12 and July 3, 2011 (the end of the survey period). Note that these variables are inferior, as we cannot reliably exclude protest that is effectively posttreatment. Regardless, across all models a greater incidence of protest in a respondent's district remains significantly negatively associated with attitudes to democracy.

Another concern relates to respondents' attitudes to democracy: two subcomponents of our index ask respondents to assess democracy's ability to deliver economic growth and maintain order and stability. We have already decomposed our dependent variable and found that when analyzed separately, protest remains negatively correlated with each subcomponent of the index. To further parse the effect of protest during the transition from the general instability caused by Mubarak's ousting, we enter dummy variables for respondents who judged that the economic and

security situation in Egypt had deteriorated as a result of the January 25 Revolution. Again, our results are unchanged. Our principal findings are also unaffected if we control for whether a respondent planned to vote for the Muslim Brotherhood in the 2011 parliamentary elections. We also account for additional district-level political characteristics. In particular, we use our measures from the 2005 parliamentary elections to control for whether respondents lived in areas where an NDP candidate was elected as an MP without facing a runoff, as well as whether a district elected a Muslim Brotherhood candidate. Including these variables in the regression does not affect our headline results.¹⁴

As per models 25 and 26, to be confident that our findings are not artifacts of our choice of control variables, we use the Lasso (least absolute shrinkage and selection operator) to estimate reduced OLS and instrumental variable models. Model 27 is a stepwise backward OLS model, where statistically insignificant covariates are removed if $p > .05$. Models 28-31 are weighted least squares regressions that incorporate poststratification sample weights for our control variables. Across all of these models, a greater incidence of protest remains significantly negatively associated with attitudes to democracy. Finally, in models 32 and 33 we estimate multilevel OLS models, substituting governorate-level fixed effects with random intercepts at both the governorate (ζ_g) and district (ζ_d) levels. In both models, a higher level of protest in a respondent's district is a negative and significant predictor of attitudes to democracy.

2.8 Repertoire, sector, and size

So far our analysis has treated protest as a unitary phenomenon. Following [Branton et al. \(2015\)](#) and [Wallace et al. \(2014\)](#), we should also examine how attitudes to democracy were affected by different protest tactics, the identities of the protesters, and protest participation. To do this, we disaggregate our key independent variable of interest: the level of protest in a respondent's district.

¹⁴The outputs are available from the authors.

Appendix table 2.14 tests how different protest repertoires patterned attitudes to democracy. Half the protests during our analysis period were labor protests, but strikes constituted only 20% of labor events. The balance were public forms of street-level mobilization. We classify these repertoires on the basis of their abstract characteristics: strikes are self-explanatory; demonstrations and marches were more transitory forms of street protest; and blockades, sit-ins, and occupations involved the taking over of public space and typically lasted several hours or more. These variables are highly correlated with each other (maximum pair-wise $r = .73$), and so we begin by entering each one individually. The results are revealing. Egyptians living in districts that saw more blockades, sit-ins, and occupations held more negative assessments of democracy. We find a similar association for Egyptians living in areas that saw more street marches and demonstrations. The coefficient for strikes is negative, but it does not achieve statistical significance. For reference we include a model with all variables estimated together. Recall that these measures are highly correlated with one another. Regardless, a higher number of blockades, sit-ins, and occupations remains significantly negatively associated with attitudes to democracy.¹⁵ However, the number of marches and demonstrations loses significance.

Appendix table 2.15 examines the effects of protest by different sectors. We enter counts of protest events launched by labor, students, local residents, and activists. These categories capture 77% of all recorded protests. Egyptians living in districts with higher levels of labor protests held significantly less favorable attitudes to democracy. Higher rates of student protest in a district are also significantly negatively associated with attitudes to democracy. Interestingly, protests launched by activists are actually modestly positively associated with attitudes to democ-

¹⁵The importance of blockades, sit-ins, and occupations is also confirmed if we decompose our dependent variable into its constituent questions. A higher rate of this protest type in a district is significantly negatively associated with respondents linking democracy with a weak economy, indecisive government, and disorder and instability. The question related to social and ethical values does not achieve significance.

racy, although this measure does not approach statistical significance ($p = .79$).¹⁶ Higher rates of protest by local residents have no effect. When modeled together, our measure for the number of student protests is no longer statistically significant. These tests expand on our initial findings and suggest that an aggregate measure of protest is measuring the true relationship with error. Parsing our measure of protest suggests that street protests involving the occupation and disruption of public space were especially deleterious to Egyptians' perceptions of democracy. Such static protests oftentimes lasted for several hours or days, and so had a greater impact on broader publics. The role played by labor protest requires further consideration. On the one hand, the high number of labor events during this period helps to explain the pronounced negative relationship between sustained mobilization and the perception that democracies have weak economies. This suggests that Egyptians conceived of disruption not only in terms of instability and chaos but also in terms of its impact on people's livelihoods and the broader economy. On the other hand, it seems that attitudes to democracy were most affected by labor's use of the January 25 repertoire of disrupting public space. This is confirmed by additional analyses reported in appendix table 2.16. Disaggregating labor protests by repertoire, a higher incidence of labor protests that involved blockades, sit-ins, and occupations is a substantive and significantly negative predictor of attitudes to democracy. By comparison, strikes, the least visible type of protest to local residents, have a more ambiguous effect.

What role did elite demonization play here? During the January 25 Revolution, Husni Mubarak had repeatedly invoked the threat that protest posed to stability in a bid to demobilize antiregime opposition and calls for democratization (Makram Ebeid, 2012). And this rhetoric was taken up by the SCAF in the aftermath of Mubarak's departure. As Sallam (2011) has documented, state officials and agencies partic-

¹⁶This chimes with Gallup's survey data from the summer of 2011 (Younis and Younis, 2011): while a majority of Egyptians thought that protest was harming the country, those who had spearheaded the January 25 Revolution continued to enjoy widespread popularity.

ularly singled out labor protests for criticism, which were portrayed as narrowly sectoral and deleterious to the country's economic health. While elite demonization of protest may have led some Egyptians to turn against street-level activism, this seems less relevant when explaining variation in how Egyptians came to view democracy. As our statistical results show, Egyptians living in areas where there was little to no protest, labor or otherwise, held much more positive perceptions of democracy. This is after controlling for pro-Mubarak attitudes and whether respondents received their news from state media—the principal channel for disseminating SCAF talking points. Interaction terms between different measures of protest in a district and consuming state media have no effect. This suggests that proximity to protest during a transition can exert an effect on political attitudes that is independent of old regime attempts at casting mobilization, and by extension democratization, in a negative light.

We now turn to aggregate protest participation in a district. Note that this is a less direct test of our hypothesis, as small to medium but continuous protest over a protracted period likely inflicts a greater degree of disruption than a one-off protest that attracts a very large number of participants. This is evident when looking at participation by repertoire. As we saw above, a higher frequency of blockades, sit-ins, and occupations has the most consistent effect on attitudes. And yet, a typical blockade, sit-in, or occupation attracted around 400 protesters, no doubt reflecting the difficulty in sustaining large numbers in one place for an extended period. By contrast, mean participation on a demonstration or march was around 2,700 participants; nearly seven times larger. The average strike involved around 500 participants. Appendix table [2.17](#) probes this further. Models 47 and 48 are the OLS and 2SLS results. The coefficient for aggregate protest participation is negative in both models, but it is only statistically significant in model 48. Parsing aggregate protest participation by repertoire, we find that higher participation in blockades, sit-ins, and occupations is again significantly negatively associated with attitudes to democracy. A higher number of protesters participating in marches

and demonstrations, on average the largest type of protest by repertoire, has no effect. A higher number of strikers in a district is also negatively associated with how respondents scored democracy. However, when modeled together, none of these variables is significant, and the measure for participation in marches and demonstrations turns positive. On balance, these results suggest that our key findings are driven by a higher frequency of longer-lasting, static protests that had greater potential to disrupt public space, as opposed to larger, more ephemeral protests.

2.9 Conclusion

Before reflecting on our findings, we should acknowledge their limitations. Our analysis provides only a snapshot of how protest affects attitudes to democracy four months into a democratic transition. Ideally, we would have panel data available to test how protest patterns attitudes to democracy over time—and account for how protest shaped substantive democratic behavior, such as whether respondents voted in Egypt’s founding elections and, if so, how they voted.¹⁷ Of course, our measure of protest relies on assignment to an aggregated geographic unit. A superior approach would be to estimate individual-level treatment effects using spatial buffers (e.g., [Wallace et al., 2014](#)). Unfortunately, the geospatial information required to construct these buffers is not available for the Arab Barometer or, to the best of our knowledge, any other survey that was fielded in Egypt during the first year of the post-Mubarak transition. In mitigation, our approach has the great strength of providing the first systematic analysis of how street-level mobilization shapes popular attitudes to democracy over a political transition.

Our results suggest that four months into the transition, sustained protest had al-

¹⁷The 2011 Arab Barometer does include a question on future voting intentions. Controlling for whether a respondent voted in a previous election, logistic regression suggests that Egyptians living in high-protest districts were more likely to vote in the 2011 parliamentary elections—although this does not quite achieve statistical significance ($p = .12$). One interpretation is that such individuals intended to vote for old regime candidates: in the summer of 2011, NDP politicians were expected to win up to a third of seats ([Kandil, 2011](#)). Appendix Table 2.15 provides some tentative evidence for this reading: more protest in a district predicts greater support for Ahmad Shafiq in the 2012 presidential elections. Respondents were also asked who they would vote for, but this information is too sparse (8% replied) to draw meaningful inferences.

ready begun to negatively affect Egyptians' attitudes to democracy. We find no evidence for the alternative proposition: that protest endeared Egyptians to democracy. We argue that this negative association is plausibly attributed to the nature of protest and the context of a political transition in a recently authoritarian country. For protesters to achieve their aims, they must necessarily inflict a cost on authorities, and inevitably these efforts have consequences for broader publics, who, while not the targets of mobilization, are nevertheless affected by mobilization. Qualitative details from the Egyptian case attest to this fallout, and disaggregation of our protest measure highlights the importance of street-level protest that involved disrupting space. Sensitivity to the negative externalities of this mobilization, we suspect, is likely heightened in a recently authoritarian context in which prior protest was previously small in scale and spatially contained. In such settings, where citizens are updating their assessment of how democracy may work in practice, high levels of localized protest can lead some to associate democracy with the knock-on effects of sustained mobilization.

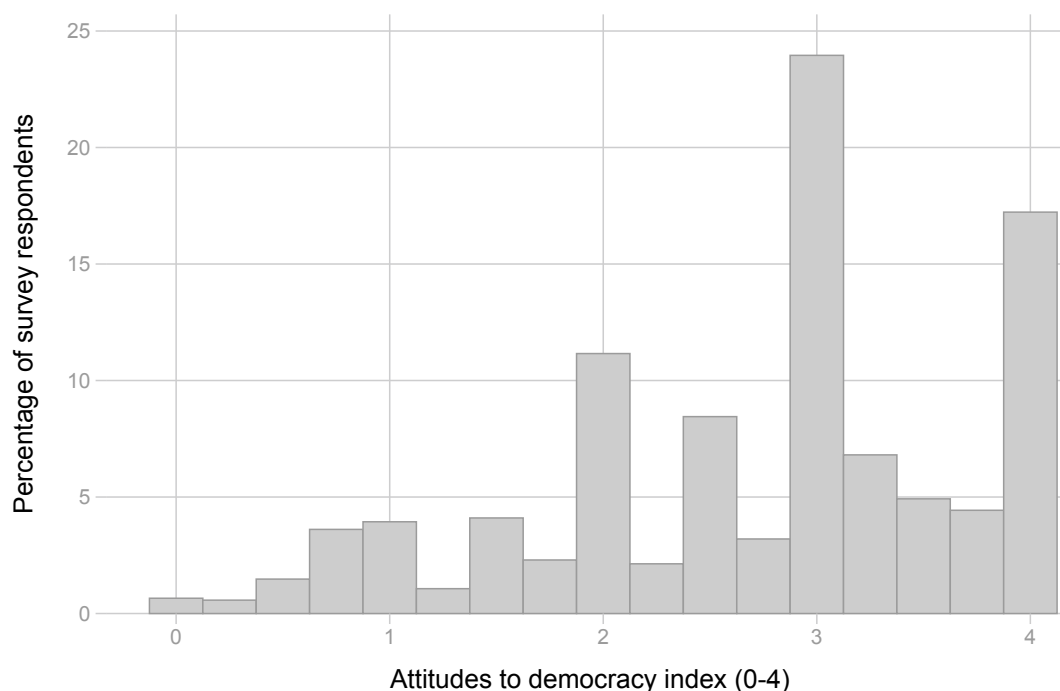
What is the significance of our findings for understanding the position of protest in processes of democratization? Mass mobilization following a democratic breakthrough is not uncommon to successful third-wave democratic transitions (see, e.g., [Ekiert and Kubik, 1999](#)). This suggests that any decline in support for democracy because of disruptive protest can only ever be a contributing but not sufficient condition in scotching a democratic transition. It does, however, help to illuminate the conditions under which democratic reversals can occur. As [Jou \(2016\)](#) has argued, in transitional contexts, where regime stability cannot be taken for granted, popular support for democracy can help insulate a transition from negative political or economic shocks. This builds on a central insight from the early literature on third-wave democratization: successful consolidation requires popular acceptance of the idea that democracy is the “only game in town,” rather than one of several governing options ([Linz and Stepan, 1996](#)). And as recent episodes of failed democratic transition illustrate, popular disillusionment with democratization can be harnessed

by old regime figures to roll back democratic gains and bring about authoritarian re-trenchment (for a review, see [Haggard and Kaufman, 2016](#)). However, the question of how support for democracy develops or is eroded during periods of democratic transition is often ambiguous.

Egypt's democratic transition failed on July 3, 2013, when a military coup seized on mass protests to oust Islamist president Muhammad Mursi. In explaining support for democracy in the MENA, most studies focus on factors that predate democratic openings. By contrast, this article finds that sustained mobilization during the transition itself may have contributed to the erosion of popular support for Egypt's new democracy by sapping the public's confidence in the capacity of the new democratic regime to guarantee a return to prebreakthrough levels of economic prosperity and resolve social conflict. Further examination of this dynamic can, we suggest, help to explain when and how popular disillusionment with democratization is harnessed by old regime figures to engineer democratic reversals.

2.10 Appendix

Figure 2.6: Distribution of respondents' attitudes to democracy



Supplementary analysis

In footnote 17 we suggested that survey respondents living in high protest areas may have intended to vote for old regime parliamentary candidates as a consequence of that mobilization. Of course, when the elections were held beginning in November 2011, NDP politicians did not run, leading to an exaggerated victory for political Islam. However, an old regime candidate, Ahmad Shafiq, did run in the presidential elections held the following year. This presents us with an opportunity to probe our assertion – that protest may have increased support for autocratic candidates – using regression analysis.

The dependent variable is the percentage of the vote received by Shafiq in the first round of the 2012 presidential elections. The first round is preferred as the second round saw extensive tactical voting in a (failed) attempt to keep out the Muslim Brotherhood candidate Mohammad Mursi. The unit of analysis is an electoral

Table 2.4: Descriptive statistics

| Variable | Mean | Std dev | Min | Max |
|----------------------------------------------------------|---------|---------|--------|---------|
| Attitude to democracy (index) | 2.73 | 0.99 | 0.00 | 4.00 |
| Protest events in district (sqrt) | 1.62 | 1.67 | 0.00 | 8.77 |
| Distance to focal point (sqrt, km) | 4.07 | 1.76 | 0.81 | 10.06 |
| Age | 39.51 | 13.97 | 18.00 | 85.00 |
| Age squared | 1755.92 | 1226.98 | 324.00 | 7225.00 |
| Education | 3.45 | 1.95 | 1.00 | 7.00 |
| Male | 0.50 | 0.50 | 0.00 | 1.00 |
| Employment | 2.54 | 1.44 | 1.00 | 4.00 |
| Business owner | 0.02 | 0.14 | 0.00 | 1.00 |
| Muslim | 0.94 | 0.23 | 0.00 | 1.00 |
| Read the Quran/the Bible | 4.17 | 0.95 | 2.00 | 5.00 |
| Income (log 10) | 2.88 | 0.34 | 1.70 | 4.18 |
| Protest in district prior to 25 Jan Rev | 0.50 | 0.50 | 0.00 | 1.00 |
| Protesters from district killed during 25 Jan Rev (sqrt) | 0.90 | 1.18 | 0.00 | 5.83 |
| Urban | 0.43 | 0.49 | 0.00 | 1.00 |
| Population density (thousands per km) | 91.95 | 156.70 | 1.59 | 660.19 |
| Police station attacked during 25 Jan Rev | 0.32 | 0.47 | 0.00 | 1.00 |
| Distance to central Cairo (sqrt, km) | 10.96 | 5.59 | 1.15 | 25.26 |
| Voted in past | 0.36 | 0.48 | 0.00 | 1.00 |
| Assessment of Egypt's level of democracy | 5.57 | 2.30 | 0.00 | 10.00 |
| Supported Mubarak | 0.14 | 0.35 | 0.00 | 1.00 |
| Participated in 25 Jan Rev | 0.08 | 0.27 | 0.00 | 1.00 |
| Protested during post-Mubarak transition | 0.03 | 0.17 | 0.00 | 1.00 |
| News from state media | 0.33 | 0.47 | 0.00 | 1.00 |
| Assisted protesters during 25 Jan Rev | 0.06 | 0.24 | 0.00 | 1.00 |

Each observation comprises one respondent in one district

Table 2.5: Correlation matrix

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) |
|---------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| (1) Attitude to democracy (index) | | | | | | | | | | | | | | | | | | | | | | | |
| (2) Protest events in district (sqrt) | -0.04 | | | | | | | | | | | | | | | | | | | | | | |
| (3) Age | 0.02 | 0.09 | | | | | | | | | | | | | | | | | | | | | |
| (4) Age squared | 0.03 | 0.09 | 0.99 | | | | | | | | | | | | | | | | | | | | |
| (5) Education | 0.09 | 0.15 | -0.23 | -0.24 | | | | | | | | | | | | | | | | | | | |
| (6) Male | 0.20 | 0.03 | 0.13 | 0.13 | 0.14 | | | | | | | | | | | | | | | | | | |
| (7) Employment | 0.19 | 0.04 | -0.07 | -0.10 | 0.26 | 0.66 | | | | | | | | | | | | | | | | | |
| (8) Muslim | -0.08 | -0.09 | -0.06 | -0.06 | 0.00 | 0.01 | 0.02 | | | | | | | | | | | | | | | | |
| (9) Read the Quran/the Bible | 0.14 | 0.07 | 0.08 | 0.08 | 0.15 | -0.05 | -0.01 | 0.07 | | | | | | | | | | | | | | | |
| (10) Income (log) | 0.07 | 0.17 | 0.06 | 0.06 | 0.42 | 0.08 | 0.10 | -0.04 | 0.08 | | | | | | | | | | | | | | |
| (11) Business owner | -0.02 | 0.05 | 0.04 | 0.04 | 0.12 | 0.08 | 0.14 | -0.11 | 0.02 | 0.18 | | | | | | | | | | | | | |
| (12) Protest in district prior to 25 Jan Rev | -0.09 | 0.39 | 0.07 | 0.07 | 0.05 | 0.03 | 0.01 | -0.08 | -0.05 | 0.10 | -0.01 | | | | | | | | | | | | |
| (13) Protesters from district killed during 25 Jan Rev (sqrt) | -0.04 | 0.25 | 0.06 | 0.06 | 0.05 | 0.01 | 0.00 | 0.01 | 0.07 | 0.12 | 0.04 | 0.16 | | | | | | | | | | | |
| (14) Urban | -0.01 | 0.25 | 0.08 | 0.07 | 0.26 | 0.03 | 0.03 | -0.01 | 0.16 | 0.29 | 0.15 | 0.05 | 0.39 | | | | | | | | | | |
| (15) Population density (thousands per km) | 0.03 | 0.09 | 0.12 | 0.13 | 0.19 | 0.01 | 0.02 | -0.12 | 0.15 | 0.24 | 0.13 | 0.13 | 0.57 | 0.55 | | | | | | | | | |
| (16) Distance to central Cairo (sqrt, km) | 0.11 | -0.17 | -0.04 | -0.04 | -0.15 | -0.05 | -0.03 | -0.07 | -0.01 | -0.18 | -0.08 | -0.23 | -0.44 | -0.31 | -0.44 | | | | | | | | |
| (17) Police station attacked during 25 Jan Rev | -0.02 | 0.26 | 0.07 | 0.08 | 0.05 | -0.01 | -0.01 | -0.01 | 0.08 | 0.07 | 0.06 | 0.14 | 0.56 | 0.37 | 0.45 | -0.29 | | | | | | | |
| (18) Voted in past | 0.10 | -0.04 | 0.10 | 0.09 | 0.12 | 0.22 | 0.19 | 0.06 | 0.02 | 0.04 | 0.06 | 0.00 | -0.12 | -0.10 | -0.13 | 0.07 | -0.07 | | | | | | |
| (19) Assessment of Egypt's level of democracy | 0.11 | 0.00 | 0.09 | 0.08 | -0.05 | 0.01 | 0.02 | 0.08 | 0.12 | 0.00 | -0.06 | 0.00 | 0.06 | -0.01 | 0.02 | 0.02 | 0.06 | 0.01 | | | | | |
| (20) Supported Mubarak | -0.09 | -0.06 | -0.03 | -0.02 | -0.13 | -0.10 | -0.07 | -0.05 | -0.08 | -0.10 | 0.00 | -0.05 | -0.02 | -0.05 | -0.04 | 0.01 | -0.04 | -0.03 | -0.06 | | | | |
| (21) Participated in 25 Jan Rev | 0.08 | 0.07 | -0.03 | -0.04 | 0.18 | 0.17 | 0.17 | 0.04 | 0.10 | 0.13 | 0.06 | 0.00 | 0.14 | 0.13 | 0.09 | -0.12 | 0.13 | 0.07 | -0.02 | -0.09 | | | |
| (22) Assisted protesters during 25 Jan Rev | 0.05 | 0.04 | 0.02 | 0.01 | 0.12 | 0.08 | 0.09 | 0.02 | 0.10 | 0.11 | 0.11 | -0.03 | 0.04 | 0.05 | 0.02 | -0.02 | 0.06 | 0.04 | -0.03 | -0.04 | 0.38 | | |
| (23) Protested during post-Mubarak transition | 0.05 | 0.04 | -0.01 | -0.01 | 0.10 | 0.07 | 0.13 | -0.01 | 0.08 | 0.10 | 0.13 | -0.01 | 0.08 | 0.12 | 0.08 | 0.00 | 0.06 | 0.03 | 0.00 | -0.06 | 0.32 | 0.18 | |
| (24) News from state media | 0.00 | -0.03 | 0.13 | 0.14 | -0.16 | -0.06 | -0.08 | -0.09 | 0.03 | -0.10 | -0.04 | 0.02 | 0.05 | -0.13 | -0.03 | 0.04 | -0.05 | 0.01 | 0.01 | 0.07 | -0.11 | -0.02 | -0.07 |

Table 2.6: Decomposing dependent variable - OLS

| | Model 10 <i>Economic performance is weak?</i> OLS | Model 11 <i>Indecisive and full of problems?</i> OLS | Model 12 <i>Not effective at maintaining order?</i> OLS | Model 13 <i>Negatively affects social and ethical values?</i> OLS |
|-----------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Protest events (sqrt) | -0.044* (0.022) | -0.054** (0.021) | -0.053*** (0.020) | -0.034* (0.019) |
| X_{id} | ✓ | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ | ✓ |
| R^2 | 0.21 | 0.21 | 0.19 | 0.14 |
| N | 1,040 | 1,040 | 1,040 | 1,040 |

Cluster robust standard errors in parentheses
p-value (two-tailed), *p<.10; **p<.05; ***p<.01

Table 2.7: Decomposing dependent variable - 2SLS

| | Model 14 <i>Economic performance is weak?</i> 2SLS | Model 15 <i>Indecisive and full of problems?</i> 2SLS | Model 16 <i>Not effective at maintaining order?</i> 2SLS | Model 17 <i>Negatively affects social and ethical values?</i> 2SLS |
|-----------------------|---------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Protest events (sqrt) | -0.186** (0.078) | -0.161** (0.073) | -0.090 (0.068) | -0.119 (0.073) |
| X_{id} | ✓ | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ | ✓ |
| N | 1,040 | 1,040 | 1,040 | 1,040 |

Cluster robust standard errors in parentheses
p-value (two-tailed), *p<.10; **p<.05; ***p<.01

Table 2.8: Multiple imputation

| | Model 18 OLS |
|-----------------------|------------------------|
| Protest events (sqrt) | -0.035** (0.016) |
| Multiple imputation | ✓ |
| X_{id} | ✓ |
| δ_g | ✓ |
| R^2 | - |
| N | 1,219 |

Cluster robust standard errors in parentheses
p-value (two-tailed), *p<.10; **p<.05; ***p<.01

Table 2.9: Change in daily rate of protest

| | Model 19 | Model 20 | |
|------------------------------------|-----------------------|----------------------|---------------------|
| | <i>No instrument:</i> | <i>1st Stage:</i> | <i>2nd Stage:</i> |
| | <i>OLS</i> | <i>OLS</i> | <i>2SLS</i> |
| Δ in daily rate of protest | -0.704** (0.326) | | -2.900** (1.361) |
| Distance to focal point (sqrt, km) | | -0.017*** (0.005) | |
| X_{id} | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ |
| R^2 | 0.23 | - | - |
| Kleibergen-Paap Wald F statistic | - | 10.46 | - |
| N | 1,040 | 1,040 | 1,040 |

Cluster robust standard errors in parentheses

p-value (two-tailed), *p<.10; **p<0.05; ***p<0.01

Table 2.10: Robustness checks

| | Model 21 | Model 22 | Model 23 | Model 24 |
|-----------------------------------------------|----------------------|--------------------|----------------------|---------------------|
| | <i>OLS</i> | <i>2SLS</i> | <i>OLS</i> | <i>2SLS</i> |
| Protest events (sqrt) | -0.052*** (0.020) | -0.202* (0.105) | | |
| Protest events including survey period (sqrt) | | | -0.043*** (0.015) | -0.136** (0.062) |
| Survey period control | ✓ | ✓ | | |
| X_{id} | ✓ | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ | ✓ |
| R^2 | 0.24 | - | 0.24 | - |
| Kleibergen-Paap Wald F statistic | - | 6.61 | - | 11.45 |
| N | 1,040 | 1,040 | 1,040 | 1,040 |

Cluster robust standard errors in parentheses

p-value (two-tailed), *p<.10; **p<0.05; ***p<0.01

Table 2.11: Reduced models

| | Model 25 | Model 26 | Model 27 |
|-----------------------|-----------------|----------------------|---------------------|
| | <i>Lasso</i> | <i>Lasso</i> | <i>Stepwise</i> |
| | <i>OLS</i> | <i>IV regression</i> | <i>Backward OLS</i> |
| Protest events (sqrt) | -0.040** | -0.136** | -0.035** |
| | (0.016) | (0.062) | (0.015) |
| X_{id} | (a) | (b) | (c) |
| δ_g | ✓ | ✓ | ✓ |
| N | 1,040 | 1,040 | 1,040 |

Cluster robust standard errors in parentheses

p-value (two-tailed), *p<.10; **p<0.05; ***p<0.01

(a) Variables retained: male; employment; read the Quran/the Bible; income (log 10); protest in district prior to 25 Jan Rev; urban; distance to central Cairo (sqrt, km); police station attacked during 25 Jan Rev; supported Mubarak

(b) Variables retained: male; employment; read the Quran/the Bible; income (log 10); protest in district prior to 25 Jan Rev; urban; distance to central Cairo (sqrt, km); police station attacked during 25 Jan Rev; supported Mubarak; protesters from district killed during 25 Jan Rev (sqrt); population density

(c) Variables retained: business owner; assessment of Egypt's level of democracy; male; employment; read the Quran/the Bible; income (log 10); supported Mubarak; distance to central Cairo (sqrt, km)

Table 2.12: Weighted models

| | Model 28 | Model 29 | Model 30 | Model 31 |
|----------------------------|-----------------|-----------------------|------------------|---------------------|
| | <i>Weighted</i> | <i>Weighted</i> | <i>Weighted</i> | <i>Weighted</i> |
| | <i>Least</i> | <i>Least</i> | <i>Least</i> | <i>Least</i> |
| | <i>Squares</i> | <i>Squares</i> | <i>Squares</i> | <i>Squares</i> |
| Protest in district (sqrt) | -0.046** | -0.046** | -0.046** | -0.044** |
| | (0.019) | (0.019) | (0.019) | (0.021) |
| Weighting type | Absolute | Residual ² | Log ² | Fitted ² |
| X_{id} | ✓ | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ | ✓ |
| R^2 | 0.24 | 0.24 | 0.23 | 0.28 |
| N | 1,040 | 1,040 | 1,040 | 1,040 |

Robust standard errors in parentheses

p-value (two-tailed), *p<.10; **p<0.05; ***p<0.01

Table 2.13: Multilevel models

| | Model 32 | Model 33 |
|-----------------------|-----------------------|-----------------------|
| | <i>Multilevel OLS</i> | <i>Multilevel OLS</i> |
| Protest events (sqrt) | -0.032** (0.015) | -0.032** (0.015) |
| X_{id} | ✓ | ✓ |
| ζ_g | 0.108*** (0.041) | 0.108*** (0.041) |
| ζ_d | | 0.00 (0.00) |
| N | 1,040 | 1,040 |

Robust standard errors in parentheses

p-value (two-tailed), ***p<.01; **p<.05; *p<.10

Table 2.14: Protest events by repertoire

| | Model 34 | Model 35 | Model 36 | Model 37 |
|--------------------------------------------------------|----------------------|--------------------|-------------------|---------------------|
| | <i>OLS</i> | <i>OLS</i> | <i>OLS</i> | <i>OLS</i> |
| Blockades, sit-ins, and occupations in district (sqrt) | -0.067*** (0.023) | | | -0.071** (0.035) |
| Demonstrations and marches in district (sqrt) | | -0.039* (0.023) | | 0.016 (0.034) |
| Strikes in district (sqrt) | | | -0.074 (0.051) | -0.031 (0.059) |
| X_{id} | ✓ | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ | ✓ |
| R^2 | 0.24 | 0.23 | 0.23 | 0.24 |
| N | 1,040 | 1,040 | 1,040 | 1,040 |

Cluster robust standard errors in parentheses

p-value (two-tailed), *p<.10; **<.05; ***p<.01

district. The key independent variable is a count of protest events from our analysis period (February – June 2011). After experimentation we transform this variable to the inverse hyperbolic sine.¹⁸ The null model points to substantial between-governorate variation on our dependent variable, and so we enter fixed intercepts at the governorate level. We include our NDP control to account for districts where the NDP electoral machine was particularly strong in the 2005 parliamentary elections. The results are reported in Appendix Table 2.18. As our headline findings would lead us to suspect, a higher number of protests during the transition is positively significantly associated with Shafiq winning a higher vote share when comparing

¹⁸Note that we get statistically similar results using a square root transformation. An unbounded count of protest events is in the same direction, but is not statistically significant.

Table 2.15: Protest events by sector

| | Model 38 <i>OLS</i> | Model 39 <i>OLS</i> | Model 40 <i>OLS</i> | Model 41 <i>OLS</i> | Model 42 <i>OLS</i> |
|-------------------------------------------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Labor protest events in district (sqrt) | -0.060*** (0.022) | | | | -0.066** (0.031) |
| Resident protest events in district (sqrt) | | -0.021 (0.041) | | | 0.033 (0.053) |
| Student protest events in district (sqrt) | | | -0.047* (0.024) | | -0.015 (0.030) |
| Activist protest events in district (sqrt) | | | | 0.008 (0.061) | 0.038 (0.059) |
| X_{id} | ✓ | ✓ | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ | ✓ | ✓ |
| R^2 | 0.24 | 0.23 | 0.23 | 0.23 | 0.24 |
| N | 1,040 | 1,040 | 1,040 | 1,040 | 1,040 |
| Cluster robust standard errors in parentheses p-value (two-tailed), *p<.10; **<.05; ***p<.01 | | | | | |

Table 2.16: Labor protest events by repertoire

| | Model 43 <i>OLS</i> | Model 44 <i>OLS</i> | Model 45 <i>OLS</i> | Model 46 <i>OLS</i> |
|-------------------------------------------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|
| Blockades, sit-ins, and occupations by labor in district (sqrt) | -0.097*** (0.027) | | | -0.095*** (0.034) |
| Demonstrations and marches by labor in district (sqrt) | | -0.050 (0.039) | | 0.012 (0.045) |
| Strikes by labor in district (sqrt) | | | -0.076 (0.053) | -0.033 (0.057) |
| X_{id} | ✓ | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ | ✓ |
| R^2 | 0.24 | 0.23 | 0.23 | 0.24 |
| N | 1,040 | 1,040 | 1,040 | 1,040 |
| Cluster robust standard errors in parentheses p-value (two-tailed), *p<.10; **<.05; ***p<.01 | | | | |

Table 2.17: Protest participation in district

| | Model 47 <i>OLS</i> | Model 48 <i>2SLS</i> | Model 49 <i>OLS</i> | Model 50 <i>OLS</i> | Model 51 <i>OLS</i> | Model 52 <i>OLS</i> |
|-------------------------------------------------------------------------------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| Protest participation (sqrt) | -0.001 (0.001) | -0.005* (0.003) | | | | |
| Protest participation by blockade, sit-in, and occupation (sqrt) | | | -0.001* (0.001) | | | -0.001 (0.001) |
| Protest participation by demonstrations and marches (sqrt) | | | | -0.000 (0.001) | | 0.001 (0.001) |
| Protest participation by strikes (sqrt) | | | | | -0.004* (0.002) | -0.004 (0.003) |
| X_{id} | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| δ_g | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| R^2 | 0.23 | - | 0.23 | 0.23 | 0.24 | 0.24 |
| Kleibergen-Paap Wald F statistic | - | 11.66 | - | - | - | - |
| N | 1,040 | 1,040 | 1,040 | 1,040 | 1,040 | 1,040 |
| Cluster robust standard errors in parentheses p-value (two-tailed), *p<.10; **<.05; ***p<.01 | | | | | | |

Table 2.18: The effect of protest on Shafiq vote

| | Model 53 <i>OLS</i> |
|-------------------------------------------------|-------------------------------|
| Protest in district, Feb-June 2011 (IHS) | 1.052 (0.471)** |
| Historic NDP control | ✓ |
| δ_g | ✓ |
| R^2 | 0.66 |
| N | 327 |
| Robust standard errors in parentheses | |
| p-value (two-tailed), *p<.10; **p<.05; ***p<.01 | |

districts from the same governorate. This relationship is non-trivial. A one standard deviation increase in protest is associated with an 8 percent increase in Shafiq's vote share. While inevitably tentative, this finding is nevertheless suggestive. To have greater confidence in this finding we would ideally have protest event data for the full period leading up to the presidential election. We would also want to control for other confounding factors, such as the demographic profile of the district. Further examination of this relationship could generate additional insights into the failure of the post-Mubarak transition.

3 Low-Cost Rallying under Authoritarianism: Evidence from Jordan

3.1 Introduction

This article examines the rally 'round the flag effect (henceforth, “rally effect”) of low-cost diversionary foreign policy in authoritarian regimes, drawing on evidence from Jordan. Although there is an extensive academic literature on the rallying effects of salient foreign policy events (henceforth, “rally events”), until recently this body of work has focused almost exclusively on liberal democracies. Moreover, the companion literature on diversionary foreign policy has largely focused on diversionary uses of force. These are high-cost, high-risk events which are rare and arguably of limited relevance to a more general understanding of authoritarian stability. In contrast, this study builds on an emerging body of scholarship examining authoritarians’ use of low-cost diversionary tactics.

For identification, I exploit an unexpected diversionary foreign policy announcement made in Jordan during the fielding of the Jordanian sample for the fifth wave of the Arab Barometer survey. In October 2018, despite very little pre-existing public mobilization on the issue or public attention to it, the Jordanian government announced it would exercise its right to opt-out of an annex to its peace treaty with Israel which involved the long-term lease of the uninhabited Baqura and Ghamr border areas to the Israeli state. This announcement was billed by the regime as a liberation of Jordanian territory and followed by an intensive, nationalistic media campaign celebrating the decision. Importantly, the Baqura-Ghamr decision was announced at a moment when the Jordanian regime faced particularly strong incentives to divert the public’s attention from domestic policy failures, including a failure to deliver on tax reforms promised in the wake of mass anti-taxation protests which had toppled the country’s Prime Minister several months earlier. These failures had led to vocal public criticism of the regime’s economic policies by influential political figures and

calls by opposition activists for citizens to protest in support of democratic reform. The serendipitous occurrence of this event during the fielding of a nationally representative public opinion survey provides a valuable opportunity to study rallying in authoritarian contexts where time-series public opinion data tends to be sparse.

This article makes contributions to the companion literatures on rallying and diversionary foreign policy and to the literature on authoritarian stability. First, it contributes to the literature on rallying in authoritarian regimes. Very few studies have investigated rallying in authoritarian settings, a lacuna which has been attributed to the relative dearth of temporally granular public opinion data in these contexts (Hale, 2018; Johnson and Barnes, 2011; Pickering and Kisangani, 2010). Existing evidence comes from the Russian case, where a remarkable increase in public support for President Putin following the annexation of Crimea in 2014 provided a rare opportunity to investigate the dynamics of rallying under authoritarianism (Hale, 2018, 2022; Greene and Robertson, 2022). This study expands the literature beyond Russia by introducing the Jordanian case, which more closely resembles the modal authoritarian state.

This article also contributes to an emerging body of scholarship examining authoritarians' use of low-cost diversionary tactics to influence public opinion. While there is a growing body of evidence demonstrating that low-cost diversionary tactics are a tool of authoritarian rule, less is known about the effects of these tactics. A notable exception is recent evidence from a survey experiment fielded in Egypt which suggests that diversionary media rhetoric can increase individuals' trust in government (Alrababa'h, 2021). The current study builds on this evidence, looking beyond the priming effects of media rhetoric to investigate a naturally occurring event which provides a level of external validity beyond what is offered by survey experiments. Importantly, the Baqura-Ghamr announcement was a highly salient event that drew on an emotionally resonant, valence issue in Jordanian society. It thus provides a "most likely" case of low-cost rallying which is useful for better understanding the scope conditions under which we can expect such tactics to be effective.

The empirical analysis yields two key findings. First, it demonstrates the limits of low-cost diversionary tactics. Despite being a “most likely case”, the Baqura-Ghamr announcement only led to a small rallying effect among those with lower levels of educational attainment. Second, it highlights the need for caution in generalizing about the media dynamics of rallying under authoritarianism. In contrast to the Russian case, reliance on social media as a primary news source was not found to moderate the rallying effect.

3.2 The rallying effects of foreign policy

The rally 'round the flag effect is the dominant theoretical framework to explain the positive impact that foreign policy events can have on public support for incumbents. The most oft-cited examples of rally effects include increases in support for the British Prime Minister and the Conservative party in the wake of the Falklands War ([Lai and Reiter, 2005](#)), the surge in approval for the US President and Congress as well as increased trust in government during the Persian Gulf War ([Parker, 1995](#); [Chatagnier, 2012](#)) and the dramatic increase in approval for the US President in the aftermath of the September 11th attacks ([Hetherington and Nelson, 2003](#)). But while there is a voluminous scholarly literature on the rallying effects of foreign policy events, it remains almost exclusively focused on advanced industrialized democracies and particularly the case of the United States (see [Murray, 2017](#), for a review).

The few existing studies on rallying under authoritarianism have yielded mixed results. In a cross-national study using longitudinal data on 140 autocracies over the period 1950 to 2005, [Pickering and Kisangani \(2010\)](#) find that military intervention by a regime does not lower the incidence of general strikes, anti-government protests and riots in the country. This is interpreted as evidence that military intervention does not increase public support for authoritarian regimes. However, given the study's methodological limitations, this finding can only be considered suggestive. In contrast, it is well established that Russia's annexation of Crimea in 2014 led to a large increase in public support for President Putin ([Hale, 2018, 2022](#); [Greene and](#)

Robertson, 2022).

Several scholars have argued that we should expect rallies to have different features depending on regime type, and that authoritarian rallying merits distinct study (Hale, 2018, 2022; Greene and Robertson, 2022). For example, research on democratic contexts finds that media narratives around salient foreign policy events shape rallying effects (for example, Baker and Oneal, 2001; Brody and Shapiro, 1991; Groeling and Baum, 2008), whereas Hale (2018) presents evidence of counter-intuitive media effects in an authoritarian setting. Drawing on evidence from a survey experiment fielded in Russia, he finds that daily consumers of television news did not rally when presented with a prime about the annexation of Crimea whereas those with less exposure to television news did. He argues that this is because daily consumers of Russian television news are already saturated with pro-regime narratives and concludes that under authoritarianism, dramatic foreign policy events cause rallying effects by focusing the attention of citizens with lower levels of pro-regime media exposure.

Similarly, Greene and Robertson (2022) argue that the media plays a different role in rallying under authoritarianism than it does in democratic contexts. They argue that in authoritarian settings (unlike democracies) the media is always pro-regime and thus, the distinctive feature of rally events is not changing media dynamics but rather changes in how society responds to politics. Using panel survey data, they demonstrate that the Crimea rally effect was largest amongst those who previously paid less attention to politics but increased their engagement with politics on television and within their social circles after the Crimean annexation.

While the Russian case is undoubtedly important, the reliance upon it in this literature poses challenges for generalizing to other authoritarian cases, especially because Russia is atypical of authoritarian regimes. Not only is Russia a powerful international actor with strong capacity to engage in military adventurism, it also has a national narrative and identity that is almost two centuries old (see, for example,

Dunlop, 2014; Laruelle, 2009). Given that national identity has been shown to play a role in generating rally effects (Hale, 2018), this may have implications for Russians’ propensity to rally. In contrast, the modal authoritarian state is a relatively recent post-colonial construction.¹

3.3 Diversionary foreign policy and authoritarian stability

Unlike the literature on rallying effects, there is a substantial body of research on diversionary foreign policy in authoritarian regimes. Diversionary foreign policies are *intentional* efforts by political leaders to create or highlight conflict with other nations in order to divert citizens’ attention from domestic problems and shore up domestic support for their rule. Because diversionary foreign policies aim to create a rallying effect, understanding the conditions under which they succeed in doing so can provide important insights into how and when this is an effective tool of authoritarian rule.

The question of whether authoritarian regimes intentionally employ diversionary foreign policies to garner public support remains a vexed one. To date, the literature has tended to focus on the diversionary use of force. There is some evidence from cross-national studies to suggest that certain types of authoritarian regimes engage in the diversionary use of military force (Pickering and Kisangani, 2005; Kisangani and Pickering, 2007; Pickering and Kisangani, 2010), however, the notion that this is a common feature of authoritarian politics is controversial. Much of the existing literature suggests that rallying effects only occur as a result of high-impact foreign policy events – particularly militarized conflict – and that they are often fleeting (for example, Baker and Oneal, 2001; Groeling and Baum, 2008; Lai and Reiter, 2005; Lian and Oneal, 1993; also see Murray, 2017, for a review). In light of this, it has been argued that political leaders are unlikely to risk incurring extremely high costs to reap temporary, short-lived rewards (for example, Baker and Oneal, 2001;

¹Of the 67 countries defined by the Polity 5 index as autocracies and anocracies in 2018, the Colonial Dates Dataset (Becker, 2019) identifies 51 as former European colonies.

Groeling and Baum, 2008; Murray, 2017).

A new body of research has shifted the focus of this debate to authoritarians' use of lower cost diversionary tactics. Evidence from Egypt and Syria demonstrates that when domestic dissatisfaction in these countries was high, media rhetoric around foreign policy, security threats and conspiracies has been manipulated to divert public attention and dissuade citizens from participating in protest (Alrababa'h and Blaydes, 2020; Alrababa'h, 2021). Evidence from contemporary China has also found that as the number of political protests in the country increases, state-controlled media outlets become more likely to publish reports on external conflict (Liao and Hwang, 2022). Similarly, Kisangani and Pickering (2007) find that political leaders in hybrid regimes (but not fully autocratic regimes) engage in the use of 'benevolent' diversionary force over low politics issues (such as humanitarian and economic issues) and that they prefer these lower cost foreign policy interventions to the use of belligerent diversionary force over high politics issues. Because lower cost interventions such as diversionary media rhetoric and the use of 'benevolent' socioeconomic force do not entail the high risks and costs of military conflict, they are more plausible features of authoritarian politics.

Indeed, several examples of low-cost foreign policies in authoritarian settings have anecdotally been described by observers as diversionary in nature. As Weiss (2013) has noted, observers have argued that the Chinese regime allowed its citizens to hold anti-Western protests in response to the 1999 NATO bombing of the Chinese embassy in Belgrade in order to distract from the tenth anniversary of the Tiananmen Square protests, which some had expected to mobilize anti-government protest. And as Quek and Johnston (2017) note, many pundits and analysts of Chinese politics argue that bolstering public sentiment toward the regime is an important driver in China's coercive diplomacy in the East and South China Seas.

Although rallying effects are often short-lived (see for example, Edwards and Gallup, 1990, 146; Lai and Reiter, 2005), they may nevertheless be useful for the short-term

management of public opinion at critical moments when discontent is high and there is a perceived risk of mass mobilization. The fact that the Chinese regime typically marks the anniversary of the Tiananmen Square protests by restricting public access to the square and increasing online censorship ([Davidson and Ni, 2021](#)) points to authoritarians' awareness of, and responsiveness to, such critical moments (see also, [Truex, 2019](#)). Indeed, recent evidence from China shows that on days with high collective action potential (such as national holidays that have historically been a focal point of protest), the regime engages in mass fabrication and publication of positive social media content about valence issues. It has been argued that these directed social media cheerleading bursts aim to divert public attention away from discussions of contentious mobilization during critical moments ([King et al., 2017](#)).

While there is a growing body of evidence demonstrating that low-cost diversionary tactics are a tool of authoritarian rule, less is known about the effects of these tactics. As discussed above, there is evidence to suggest that conflicts short of war are less likely to cause rallying effects. However, recent evidence from a survey experiment in Egypt suggests that diversionary rhetoric can be effective ([Alrababa'h, 2021](#)).² In this experiment, respondents were primed with an article about foreign conspiracies against Egypt's national security. As a result, they reported higher levels of trust in government than the control group and were more likely to identify security threats and foreign interference as a national priority compared to domestic socio-economic and governance issues.

Building on the abovementioned experiment, this paper looks beyond the priming effects of diversionary media rhetoric to examine the rallying effect of a low-cost diversionary foreign policy with material implications. The Baqura-Ghamr announcement was low-cost in that it did not involve use of force and Jordan was in full

²Two recent studies have also explored the rallying potential of low-cost diversions in the democratic context of the United States. Looking at the period 1945-2010, [Carter \(2020\)](#) finds that hostile foreign policy rhetoric used by American presidents during times of economic malaise is associated with a subsequent increase in their approval ratings. [Boddery and Klein \(2021\)](#) conduct a hypothetical vignette survey experiment using American subjects and find that exposure to information about drone strikes carried out by the United States increased research subjects' approval ratings of the US President.

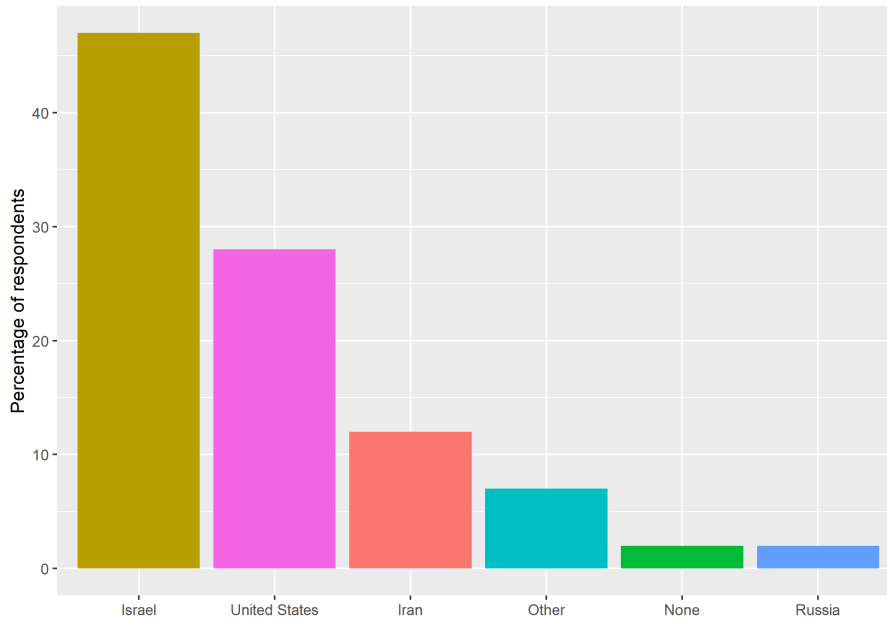
compliance with the terms of its peace treaty with Israel in exercising its right to withdraw from this annex. Moreover, the two border areas are of little significance. They are: 1) very small, covering a combined total land area of only 10 km²; 2) uninhabited, meaning that withdrawal from the annex did not require any population transfer.

Although the quasi-experimental approach used in this study does not allow for true random assignment to the treatment, the study of a naturally occurring event provides a level of external validity beyond that offered by controlled experiments and can therefore make an important contribution to our understanding of the effects of low-cost diversionary policies under authoritarianism. Moreover, this event provides a useful case for better understanding the scope conditions under which we can expect such diversions to be effective. As discussed in greater detail below, the Baqura-Ghamr announcement is a “most likely” candidate for low-cost rallying under authoritarianism. If rallying does not occur in this case, there is considerable cause for skepticism regarding the effects of low-cost diversions in other naturalistic settings.

I classify this as a “most likely” case for three reasons. First, the Baqura-Ghamr announcement has significant material implications. It is therefore a relatively strong treatment compared to the low-cost diversions (such as media rhetoric) often studied in the literature ([Alrababa'h, 2021](#); [Carter, 2020](#)). Second, Israel is a promising target for diversionary foreign policy in the Jordanian context. Opposition to warm diplomatic relations with Israel is a valence issue *par excellence* in Jordanian society. For example, in a nationally representative survey fielded several months prior to the Baqura-Ghamr announcement,³ 94 percent of Jordanians stated that they oppose Jordan’s diplomatic recognition of Israel ([Arab Center for Research and Policy Studies, 2018](#)). When asked in the same survey which country poses the greatest threat to regional security, Israel was by far the most common answer (see [Figure 3.1](#) below). Third, there is evidence to suggest that territorial issues such as

³The survey was fielded from 6-25 March, 2018.

Figure 3.1: Which country poses the greatest threat to regional stability?



Source: Arab Opinion Index 2017-2018

Baqura-Ghamr have particularly powerful diversionary potential because they elicit high levels of emotional response and societal bonding (Tir, 2010).

Finally, the availability of rich demographic and behavioral data on respondents exposed to the Baqura-Ghamr announcement allows this study to explore the heterogeneous rallying effects of low-cost diversionary policies, particularly with relation to media consumption and educational attainment. These factors have previously been identified as key moderators of rallying effects in the literature on advanced industrialized democracies (for example, Baum, 2002; Brody and Shapiro, 1991; Groeling and Baum, 2008) although findings from the research on Russia, discussed above, raises questions regarding how this might travel to authoritarian settings.

3.4 Fiscal crisis, popular discontent and diversionary foreign policy in Jordan

Jordan is an upper-middle income, resource-poor authoritarian regime. Since gaining independence from British rule in 1946, the regime has faced considerable (but

not revolutionary) political challenges which it has managed with considerable success. For much of the Cold War, the country was a key site of regional ideological competition between Soviet-leaning populist Arab nationalist republics and Western-leaning conservative Arab monarchies ([Hertog, 2020](#)) and witnessed several aborted Arab nationalist coup attempts ([Peters and Moore, 2009](#)). This vulnerability in the Jordanian regime's position created significant pressure to match the social welfare promises of the Arab nationalist republics, leading to high levels of public employment and spending on basic consumer subsidies ([Hertog, 2020](#)). Since the late 1980s, high levels of state expenditure combined with low economic dynamism have led to a chronic state of fiscal crisis in the country. To finance Jordan's growing debt, successive governments have implemented controversial IMF-mandated structural adjustment programs which have led to popular backlash on several notable occasions, including violent nationwide protests against the lifting of consumer subsidies in 1989, 1996 and 2012. The 'Arab Spring' uprisings of 2011 also triggered a nationwide wave of non-revolutionary protest across the country (see, for example, [Schwedler, 2022](#); [Yom 2014, 2015](#)). More recently, in 2018, a new income tax law proposed by the government alongside proposals to cut civil servant employment benefits led Jordan's professional syndicates to launch a general strike in the country ([Al-Dabisia, 2018](#)). This coincided with substantial increases to fuel and electricity prices ([Ghazal, 2018a,b](#)), triggering a week of mass protest which resulted in the resignation of the Jordanian Prime Minister and the withdrawal of the proposed income tax law.

Several months after the 2018 protest wave, Jordan's government announced that it would exercise its right to opt-out of an annex to its peace treaty with Israel, which involved the 25-year lease of the uninhabited Jordanian Baqura and Ghamr border areas to the Israeli government⁴. Billed by the regime as a liberation of Jordanian territory from Israel, this policy decision received extensive and adulatory coverage in the local media (for example, [al-Ghad, 2018d](#); [al-Ghad, 2018e](#); [al-Ghad,](#)

⁴Treaty of Peace between the Hashemite Kingdom of Jordan and the State of Israel, October 26 1994, Annex 1, Sections B and C.

2018f; al-Ra'i, 21 Oct 2018; al-Ra'i, 24 Oct 2018; Ro'ya News, 23 Oct 2018). The announcement dominated the local news pages of the country's major newspapers for three days, including strikingly similar front-page spreads on the first day after the announcement, as presented in Figure 3.2. Although two of these newspapers are overtly state-controlled, one is privately owned and describes itself as independent. However, it is worth noting that the regime does exercise some control over the content of the privately owned newspaper. According to one staff member, when it comes to reporting on major public relations or policy initiatives, the Royal Hashemite Court often directly sends the newspaper the exact copy and imagery to be used in its front-page coverage (fieldnotes, 04.09.2019). For three days, this particular newspaper displayed a large banner across the top of all its local news pages proclaiming “Baqura and Ghamr return to the nation's embrace” (see Figure 3.3 below).

Figure 3.2: Selection of front-page media coverage from major Jordanian newspapers



Top-left: Front page of Al-Ghad newspaper, 22.10.2018. Top-right: Front page of Al-Ra'i newspaper, 22.10.2018. Middle-left: Front page of Ad-Dustour newspaper, 22.10.2018. Middle-right: Front page of Ad-Dustour newspaper, 23.10.2018. See Appendix A for English-language translation of headlines and sub-headings.

Figure 3.3: Al-Ghad newspaper banner across local news section from 22.10.2018 - 24.10.2018



Translation: “Baqura and Ghamr return to the nation’s embrace”

In addition to this newspaper coverage, the announcement received extensive coverage on Jordanian television news programs,⁵ including video footage of a public meeting between the King and public figures during which he made the announcement. In this footage, the King stated that Jordan will “assert full sovereignty over our territory” and that the government’s priorities “are to protect our interests and do whatever necessary for Jordan and Jordanians” (for example, [Jordan Television, 21 Oct 2018](#); [Ro’ya News, 21 Oct 2018](#)). Another segment on a popular television station featured a reporter visiting an area near Baqura to interview residents regarding the decision. The reporter described “the joy pervading Jordanians” after what he described as a “historic decision” and the “intense pride” of residents about the decision. According to one interviewee, the decision “brought joy to the hearts of all Jordanians” ([Ro’ya News, 23 Oct 2018](#)). In short, there was a concerted, extensive campaign in local Jordanian media promoting and endorsing the annulment of this annex to the peace treaty. While foreign policy considerations may have played a role in informing the Baqura-Ghamr decision, it is clear from the nature and extent of this media campaign that this decision was also targeted toward a domestic audience.

It is noteworthy that the Baqura-Ghamr decision was announced at a moment when the Jordanian regime faced particularly strong incentives to divert the public’s attention away from domestic policy failures. The decision came several weeks after the end of a much heralded 100-day period of the new Jordanian premiership, during which the newly appointed Prime Minister had stated he would enact key reforms

⁵In addition to regional television news channels such as [al-Arabiya \(22 Oct 2018\)](#), [BBC News Arabic \(22 Oct 2018\)](#), and [Sky News Arabia \(2018b\)](#).

and initiatives. Although many of these had failed to materialize ([al-Ghad, 2018b](#)), the government had put forward a new proposal to amend the income tax law, leading the taxation issue to resurface ([CNN Arabic, 24 Sep 2018](#)). Immediately following the end of the 100 days, Hamzah bin Al-Hussein – the country’s former Crown Prince – published a strongly worded and widely shared tweet criticizing the government’s performance, the failure to tackle “rampant” corruption in the country and the high taxation of Jordanian citizens ([bin Al-Hussein, 25 Sep 2018](#)). During this period, the Prime Minister held a public meeting with leaders of the security apparatus, attended by the press, during which he stated that no income tax law enjoys unanimous public support, that the law was in the national interest, and that it is necessary not to allow the minority of citizens that stood to lose from the law to dominate public discussion on the matter ([al-Ghad, 2018a](#)). A nationally representative public opinion poll carried out shortly thereafter found that only 17 percent of Jordanians supported the passing of the income tax law ([al-Ghad, 2018c](#)).

In early October, a statement was issued by dozens of Jordanian public figures criticizing unchecked and deepening corruption in the country, calling for the institution of a fully democratic political system with the monarch as a symbolic head of state, and calling on citizens to participate in a public protest on October 20 to support these demands. The signatories to this statement included a former minister, a former regional governor, six former MPs and twelve former army generals ([Arabi21, 8 Oct 2018](#)). On October 21, the decision to end the Baqura-Ghamr lease was announced.

3.5 Data

This study draws on several sources of quantitative and qualitative data. To validate the study’s identification assumptions, I triangulate between qualitative and descriptive quantitative data sources. I use survey data to investigate the rallying effect of the Baqura-Ghamr policy announcement.

Validation of identification assumptions

I use a number of data sources to test the observable implications of the study's identification assumptions. These include two sources of descriptive quantitative data. The first is a dataset containing the content of all online news articles published by Jordan's two state-controlled newspapers (Al-Ra'i and Ad-Dustour) over the period 2017-2018, which was scraped from the newspapers' websites. The second is daily Google Trends index data for the internet search terms "الباقورة والغمر" (Baqura and Ghamr) and "قانون الضريبة" (tax law) over the period 2017-2019. Google Trends is a public tool providing data on the volume of popular internet searches in a given geography using an anonymized, unbiased sample of Google search data. The data excludes repeated searches from the same person over a short period of time. It is scaled from 0-100, with peak search activity over a given period scored as 100. Activity for all other time periods is scored relative to that peak. The data only includes popular search terms, and a score of 0 indicates search terms with very low volume.

In addition, qualitative data was used to construct a narrative of the political context surrounding the Baqura-Ghamr policy announcement (including the income tax law proposals) and to describe Jordanian media coverage during the period of the announcement. This data was collected from Jordanian and regional Arab media sources (including television news, social media and newspapers), as well as interviews with Jordanian journalists and political analysts.

Survey data

To investigate the rallying effects of the Baqura-Ghamr decision, I use the Jordanian sample from the fifth wave of the Arab Barometer, a face-to-face survey conducted in Arabic. The Arab Barometer is nationally representative, with the Jordanian sample for wave five containing 2,400 survey respondents randomly selected from

stratified sampling blocks. This study uses a restricted access version of the Arab Barometer data which contains the date of interview for each respondent. The Jordanian survey was fielded from October 15 – November 1, 2018. The Baqura-Ghamr policy announcement was made on October 21.

It is not possible to determine whether survey respondents interviewed on the day of the announcement are pre-treatment (control) or post-treatment, thus respondents interviewed on October 21st have been dropped from the sample. After removing this group, the sample size drops to 2,192 respondents. 598 respondents are in the pre-treatment (control) group, while 1,594 are in the treated group.

Dependent variable

The dependent variable is respondents' assessment of government performance. Respondents were asked "On a scale from 0-10 measuring the extent of your satisfaction with the current government's performance, in which 0 means that you are completely dissatisfied with its performance and 10 means you are completely satisfied. To what extent are you satisfied with the current government's performance?" The resulting measure is an eleven-point scale in which higher values represent greater satisfaction with government performance.

Controls

To account for factors associated with a respondent's assessment of government performance, I include controls for age, age squared, gender, household income quintile and whether the respondent is a public sector employee. These controls are included in both the unmatched and matched regression models used in this study. Including controls in the outcome model after matching can reduce bias due to residual imbalance ([Greifer, 2020](#)). Moreover, for the purpose of analyzing heterogeneous effects, the inclusion of these controls allows us to disentangle the effects of educational attainment from those of age and income.

Furthermore, as discussed in section 3.6, the geographical pattern of survey data

collection may raise concerns about unobserved confounders correlated with respondents' geographic location. To address these concerns, I include governorate-level fixed effects.

Heterogeneous effects

The literature on rallying leads us to expect heterogeneous effects between different population groups. I investigate the existence of such heterogeneity using the following measures:

1. **Educational attainment.** Research on the United States points to the existence of a negative correlation between educational attainment and the propensity to rally (Baum, 2002; Chatagnier, 2012). This has also been observed in recent research on the Crimean rally in Russia (Hale, 2018).

The measure of educational attainment used to investigate heterogeneous rallying effects in this study is a seven-point scale corresponding to the respondent's highest level of educational attainment (no formal education/ elementary/ preparatory/ secondary/ mid-level professional or technical diploma/ bachelor's degree/ master's degree and above).

2. **Primary news source.** The effects of media consumption on rallying are well established (for example, Baker and Oneal, 2001; Brody and Shapiro, 1991; Groeling and Baum, 2008; Greene and Robertson, 2022; Hale, 2018, 2022) although this research has tended to focus on traditional media (i.e. newspapers and television). Recent scholarship on the Crimean rally in Russia has begun exploring the role of social media consumption in rallying, finding that it moderates rallying effects in different ways than traditional media (Hale, 2018, 2022).

In the context of contemporary Jordan, social media plays an important role in the media landscape. In the fifth wave of the Arab Barometer, 42 percent of Jordanian respondents identified social media as their primary source of

information for following current events, compared to 43 percent who identified television. To measure respondents’ primary news source, I construct a “social media” dummy variable for those whose primary source is social media, as opposed to television, newspapers, radio or face-to-face conversations.

3. **Origin.** Previous research suggests that ethnic identity categories can play a role in moderating rally effects ([Hale, 2018](#)). In the context of Jordan, it is noteworthy that a substantial proportion of citizens are of Palestinian origin. Importantly, the distinction between citizens of Jordanian and Palestinian origin has historically been ethnicized and politicized (see, for example, [Massad, 2001](#)). This raises the possibility that national origin could be a source of heterogeneity in rallying among Jordanians. The fifth wave of the Arab Barometer asks survey respondents about their national origin. To measure this variable, I construct a dummy variable for whether a respondent is of Palestinian origin.

3.6 Research design

This study investigates the effect of the Baqura-Ghamr policy announcement on Jordanian citizens’ assessments of government performance. For identification, I employ an Unexpected Event during Survey Design (UESD), exploiting the fact that this policy announcement was made during the fielding of the fifth wave of the Arab Barometer survey in Jordan. The validity of a UESD rests on the extent to which the study satisfies two key identification assumptions: 1) temporal ignorability and 2) excludability ([Muñoz et al., 2020](#)). I assess each of these below.

Temporal ignorability

The temporal ignorability assumption states that respondents’ treatment status is independent of their outcome ([Muñoz et al., 2020](#)). Unlike a randomized controlled trial, assignment to the treatment and control groups in a UESD is not determined by the researcher, nor is it truly random ([Muñoz et al., 2020](#); [Sekhon and Titiunik,](#)

2012). Rather, assignment to the treatment in these studies is a function of both the nature of the unexpected event and the data collection process implemented in the field (Balcells and Torrats-Espinosa, 2018; Muñoz et al., 2020; Solodoch, 2021).

Unexpectedness of the event

As will be demonstrated below, there is strong evidence to support the assumption that the Baqura-Ghamr decision was an unexpected event. Predictable events may violate the temporal ignorability assumption because they may be anticipated by some survey respondents in the pre-treatment group, who may change their attitudes in response to the event before it even occurs (Muñoz et al., 2020).⁶

Some events typically analyzed in UESD studies more plausibly fit the description of an unexpected event than others. A terrorist attack is unpredictable for the vast majority of survey respondents, as are certain types of natural disasters that are difficult to forecast (such as earthquakes and tsunamis). At the other end of the spectrum are pre-scheduled events such as elections or pre-planned demonstrations. Policy announcements, such as the Baqura-Ghmar decision, tend to fall in the middle of this spectrum. Some policy decisions are thoroughly discussed and deliberated by the government before being announced, and therefore may be widely anticipated by the public while others are less predictable. Given the idiosyncratic nature and contexts of unexpected events used in UESD studies, it is recommended that researchers investigate the plausibility of unexpectedness on a case-by-case basis (Muñoz et al., 2020).

To investigate the unexpectedness of the Baqura-Ghamr announcement, I examine data on state-controlled media coverage and internet search trends in Jordan. First, I analyse the content of all online news articles published by Jordan's two state-controlled newspapers during the period 2017-2018. This content provides a

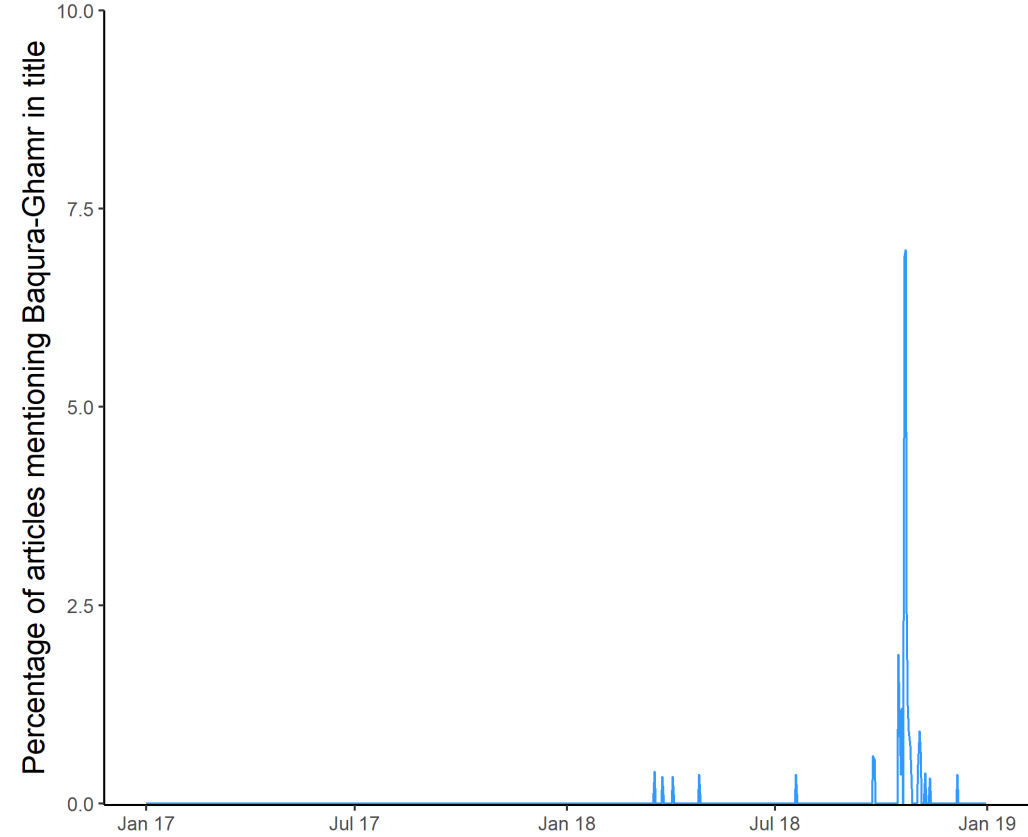
⁶It has also been suggested that anticipation of a predictable event may lead some respondents to postpone their participation in the survey and self-select into the treatment group (Muñoz et al., 2020). However, this is not relevant for the purposes of this study because the fifth wave of the Jordanian Arab Barometer was conducted using face-to-face interviews which (unlike online surveys) do not give respondents the opportunity to postpone their participation.

measure of the regime's signals to the public regarding its policy priorities and intentions. As shown in Figure 3.4(a), below, there was almost no coverage of the Baqura-Ghamr issue during 2017 or during the first eight months of 2018. In fact, these newspapers' websites only published five articles in total about Baqura-Ghamr during this twenty-month period. State-controlled newspapers did not communicate the Baqura-Ghamr issue as a salient policy issue or government priority until late October 2018.

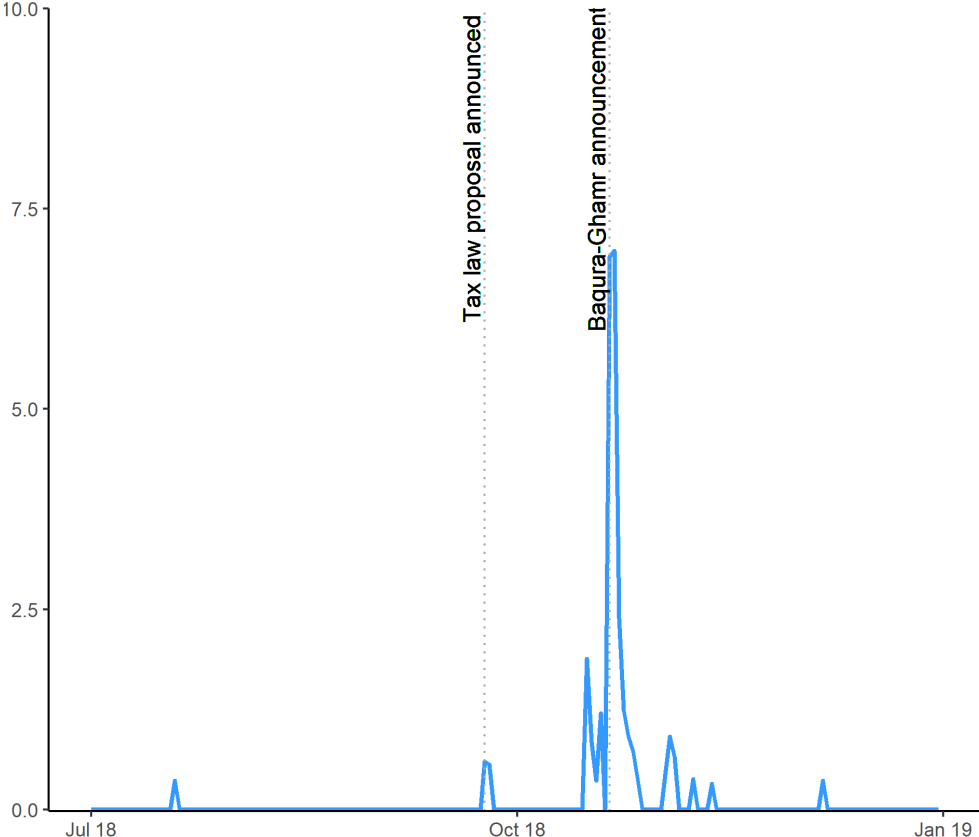
Figure 3.4(b) provides a more detailed view of the same data during the second half of 2018. As can be seen, there is a small uptick in coverage on the day that the new income tax proposal was announced and on the following day (24-25 September). This was followed by a larger uptick which started on 16 October, five days before the Baqura-Ghamr decision was announced. The large spike in coverage visible in both figures covers the two-day period starting on the day of the Baqura-Ghamr announcement and continuing until the following day.

Figure 3.4: Online coverage of Baqura-Ghamr in Al-Ra'i and Ad-Dustour newspapers

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(a) January 2017 - December 2018



(b) July - December 2018

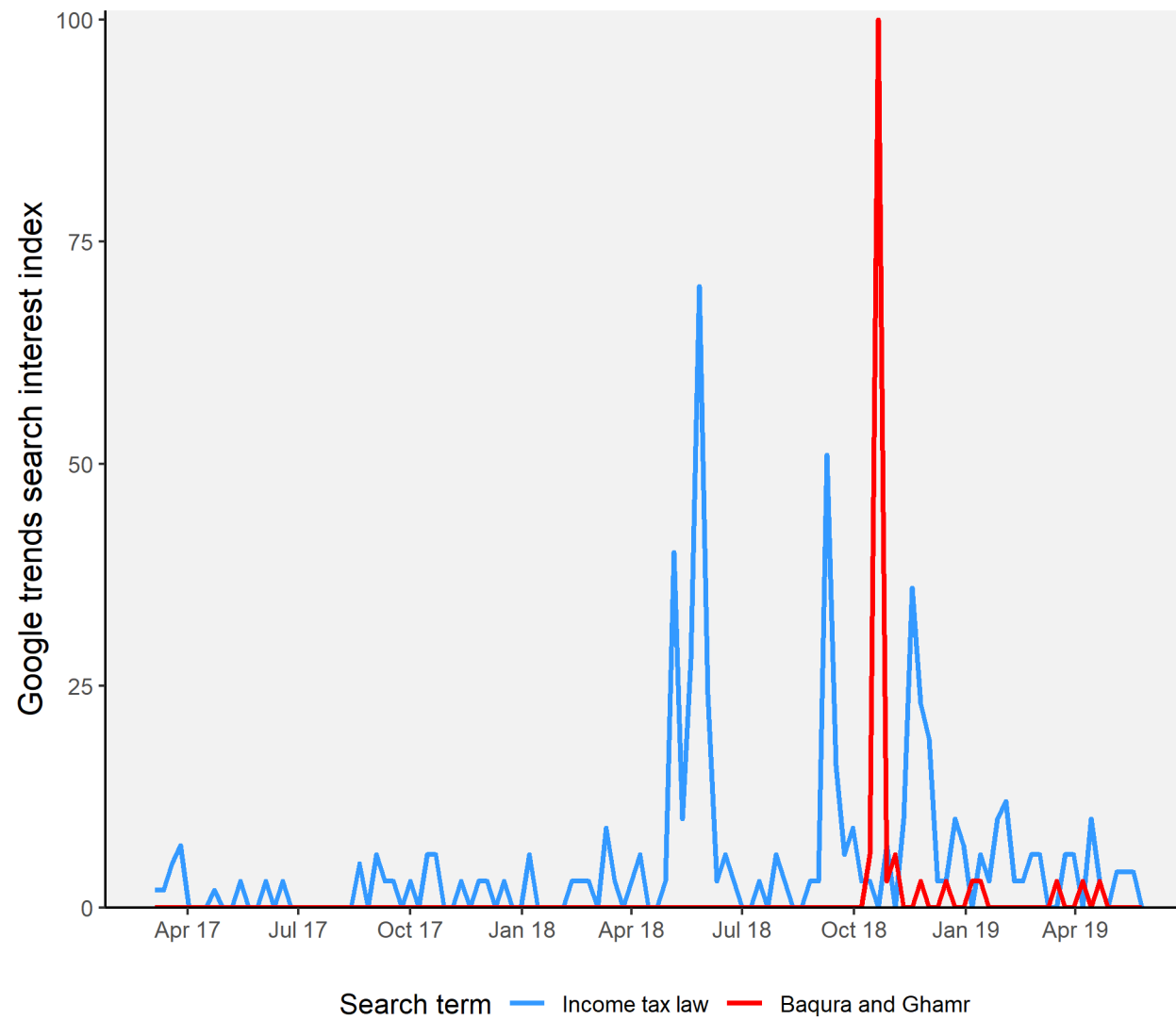
In addition to the lack of regime signals that Baqura-Ghamr was a government priority or salient policy issue, Google Trends internet search data for Jordan provides evidence for a lack of public attention to this issue before the day of the announcement and a sudden increase in interest thereafter. Over the six week (42 day) period prior to the announcement, “الباقورة والغمر” (Baqura and Ghamr) received a score of 0/100 on the Google Trends search interest index for Jordan on every day except three disparate days during which it received relatively low scores (see [Appendix B](#) for daily index scores). On the day of the announcement, it received an index score of 100/100. A comparison of Google Trends indices for the internet search terms “الباقورة والغمر” (Baqura and Ghamr) and “قانون الضريبة” (tax law) in Jordan during the period 2017-2019 is also informative (see [Figure 3.5](#)). Not only does it allow for comparison to a contemporaneous issue of public interest, it also reveals a temporary dampening of relative search interest for the tax law during the period when the Baqura-Ghamr decision was announced.

There was in fact, very little mobilization on the Baqura-Ghamr issue, or public attention to it, until several days before the announcement. For example, there had been no mass street protests demanding the annulment of this annex to the peace treaty. In contrast, opposition to other aspects of Jordanian-Israeli regime cooperation have mobilized mass street protests in recent years (see for example, [al-Jazeera](#), 3 Jan 2020; [Euronews](#), 6 Mar 2015; [Milton-Edwards](#), 2016).⁷

In addition to illustrating the unexpected nature of the event, the above evidence also brings conceptual clarity as to the nature of the treatment. The lack of pre-existing public attention and street mobilization related to this issue demonstrates that the treatment represents a diversionary event, rather than a concession to popular demands.

⁷Jordanian media documented a single street protest on the issue, consisting of tens of protesters, two days before the Baqura-Ghamr announcement. Interestingly, a prominent opposition activist interviewed by a television news reporter at the protest stated that he did not expect the government to take action to cancel the Baqura-Ghamr agreement ([Ro'ya News](#), 19 Oct 2018).

Figure 3.5: Internet search interest in “Baqura and Ghamr” March 2017 - May 2019 (weekly data)



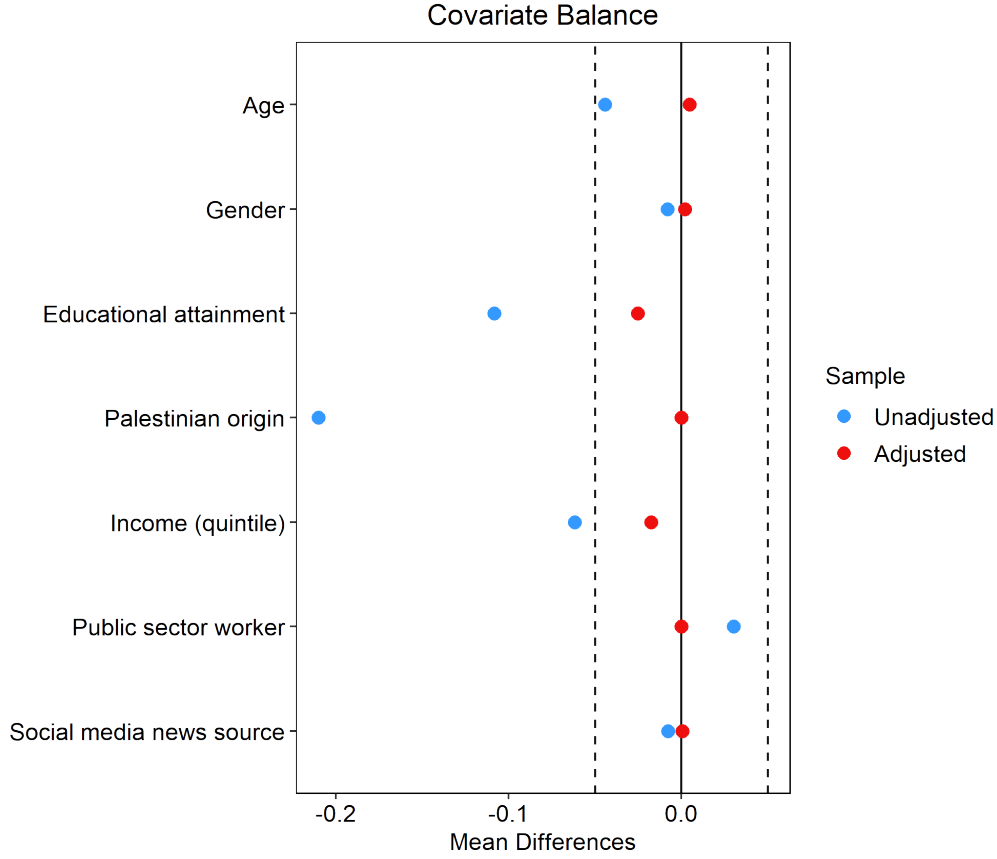
Data collection process

The second key threat to the ignorability assumption is related to the nature of the survey sampling design. In face-to-face surveys such as the fifth wave of the Arab Barometer, fieldwork often follows a geographical pattern for efficiency reasons. Insofar as location is correlated with other respondent characteristics (such as age or educational attainment), a correlation between respondent location and interview timing may lead to a violation of the temporal ignorability assumption ([Balcells and Torrats-Espinosa, 2018](#); [Muñoz et al., 2020](#)). The fifth wave of the Arab Barometer in Jordan employed a stratified area probability sampling approach in which small teams of enumerators moved together from one geographic area to the next throughout fielding, with these different areas having varying demographic profiles.⁸ As a result, the pre- and post-treatment groups are not balanced on a number of demographic covariates. Figure 3.2, below, presents a plot of covariate balance between pre- and post-treatment groups. This figure shows that those in the pre-treatment (control) group have higher levels of income and educational attainment. They are also more likely to be of Palestinian origin.

However, because the survey provides rich data on respondents' characteristics, it is possible to relax the temporal ignorability assumption and rely on a more plausible conditional ignorability assumption which states that treatment status is independent of individuals' potential outcomes conditional on a set of covariates ([Balcells and Torrats-Espinosa, 2018](#); [Muñoz et al., 2020](#); [Sekhon and Titiunik, 2012](#)). To this end, the analysis presented in this study uses governorate-level fixed effects and a matching procedure to remedy the lack of balance between the control and treatment groups. To implement the matching procedure, 175 incomplete cases were dropped from the sample to yield a sample size of 2,017 respondents (546 control / 1,471 treated). Genetic matching (as described in [Diamond and Sekhon, 2013](#)) was first attempted but yielded poor balance. Optimal full matching was then attempted (as described in [Hansen and Klopfer, 2006](#)), yielding adequate balance for all covariates

⁸Personal correspondence Michael Robbins, 14/10/2019.

Figure 3.6: Covariate balance between pre- and post-treatment groups before and after optimal full matching



Note: The dashed line represents a 95% confidence interval

of interest at below the 0.05 threshold as indicated in Figure 3.6. It is noteworthy that optimal full matching uses all treated and all control units. The matched sample is composed of matched sets, where each matched set contains one control unit and one or more treated units (or one treated unit and one or more controls). Thus, no units were discarded by the matching procedure. The analysis was carried out in R using the *MatchIt* package (Ho et al., 2011), which calls functions from the *optmatch* package (Hansen and Klopfer, 2006).

Excludability

The excludability assumption states that the timing of the survey interview only affects the outcome through the treatment event (Muñoz et al., 2020). Three common threats to this assumption are potentially relevant to this study: simultaneous

events, pre-existing time trends, and the endogenous timing of the event.⁹ As will be demonstrated below, none of these undermines the design of this study.

Simultaneous events

Salient events other than the event of interest may occur during survey fielding in a UESD study, potentially posing a problem of compound treatments (Muñoz et al., 2020; Solodoch, 2021). To establish whether this poses a threat to the identification assumptions for this study, I reviewed media coverage in the print editions¹⁰ of Jordan’s three major newspapers during the survey fielding period. For an event to be considered a prospective additional treatment, it had to fulfil both of the following criteria: 1) It had to be salient enough to be featured prominently on the front page of all three newspapers; 2) It had to be plausibly relevant to the dependent variable (public opinion about government performance).

In addition to the Baqura-Ghamr treatment, I identified one salient event / development that occurred during survey fielding. On October 25th, 2018, Jordan suffered from flash floods leading to the death of 21 people (al-Ghad, 2018g). Because it is plausible that this affected public opinion about government performance, I examine the association between this event and respondents’ assessment of government performance and find a null relationship (see Table 3.7, Appendix C). I also show that the results from the main models presented in Table 3.1 are robust to the inclusion of a dummy variable indicating whether the respondent was interviewed before or after the flash floods incident (see Table 3.8, Appendix C).

⁹Muñoz et al. (2020) also identify ‘collateral events’ as a common threat to the excludability assumption. This refers to events which are reactions to the initial unexpected event, such as the issuing of public statements or changes in media coverage. Such reactions are a constitutive characteristic of diversionary foreign policy and therefore, for the purposes of this study, they do not pose a threat to the exclusion restriction.

¹⁰Use of the print editions allowed for identification of whether news items appeared on the front page.

Unrelated time trends

It is also necessary to address the possibility that pre-existing time trends are biasing the results. More specifically, this involves excluding the possibility that the observed treatment effect is an artefact of a pre-existing time trend in the dependent variable which runs in the same direction as the treatment effect.

To address this possibility, I examine the relationship between the dependent variable during the pre-treatment period and the timing of survey interviews and find no association between the two (see Table 3.9, Appendix D). Following the regression discontinuity design literature (Imbens and Lemieux, 2008), I also construct a placebo treatment which splits the control group at its median and tests for the absence of an effect at that point. This approach has the advantage of producing control and treatment placebo groups with a similar number of respondents. I find that the placebo treatment has no significant effect (see Table 3.10, Appendix D).

Endogenous timing of the event

Finally, the timing of many unexpected events in UESD studies is not random. Like the Baqura-Ghamr decision, this timing is often decided by politically motivated actors behaving strategically. If the decision about the specific moment when the event occurs is endogenous to the outcome variable, this is a threat to the excludability assumption (Muñoz et al., 2020).

In the context under study, the timing of the Baqura-Ghamr decision – like most diversionary policies – is endogenous to the regime’s perception of actual or anticipated worsening public opinion toward government performance. It is important to note, however, that I found no association between the dependent variable and the timing of survey interviews during the pre-treatment period (see section 3.6 above). Moreover, the media analysis regarding simultaneous events presented in section 3.6 did not reveal any events or news items on the same day or after the Baqura-Ghamr announcement which are plausibly related to the dependent variable.

3.7 Results

The results show that the Baqura-Ghamr announcement led to a small rallying effect among survey respondents with lower levels of educational attainment, but not others. This is a highly robust finding which is consistent across a number of model specifications and cannot be explained by the fact that those with lower levels of education also tend to be older and have lower income levels.

Table 3.1 presents the headline results. Model 1 begins with the Ordinary Least Squares (OLS) coefficients excluding interaction terms. It reports no overall treatment effect on respondents' assessments of government performance. Model 2 presents the results from an OLS regression with full optimal matching, excluding interaction terms, and reports no overall treatment effect. Model 3 presents the results from an OLS regression with governorate-level fixed effects, excluding interaction terms. Again, it reports no overall treatment effect.

Model 7 introduces interaction terms for the three moderating variables of interest, resulting in a large increase in the coefficient for the treatment variable. This model reports that as educational attainment increases, the rallying effect decreases. Figure 3.7 presents predicted values for assessment of government performance by level of educational attainment based on Model 7. It shows an increase among those with a secondary level of education or lower.¹¹ For example, the treatment is associated with a 16 percent increase among respondents with a preparatory level of education, and an 8 percent increase for those with a secondary level of education. In contrast, there is no rallying effect among those with an undergraduate university degree.

¹¹Preparatory education in Jordan is defined as the first ten years of primary education, while secondary education involves two further years of schooling. 35 percent of respondents in the Jordanian sample for the fifth wave of the Arab Barometer report having a preparatory level of education or lower. A further 37 percent report having a secondary level of education.

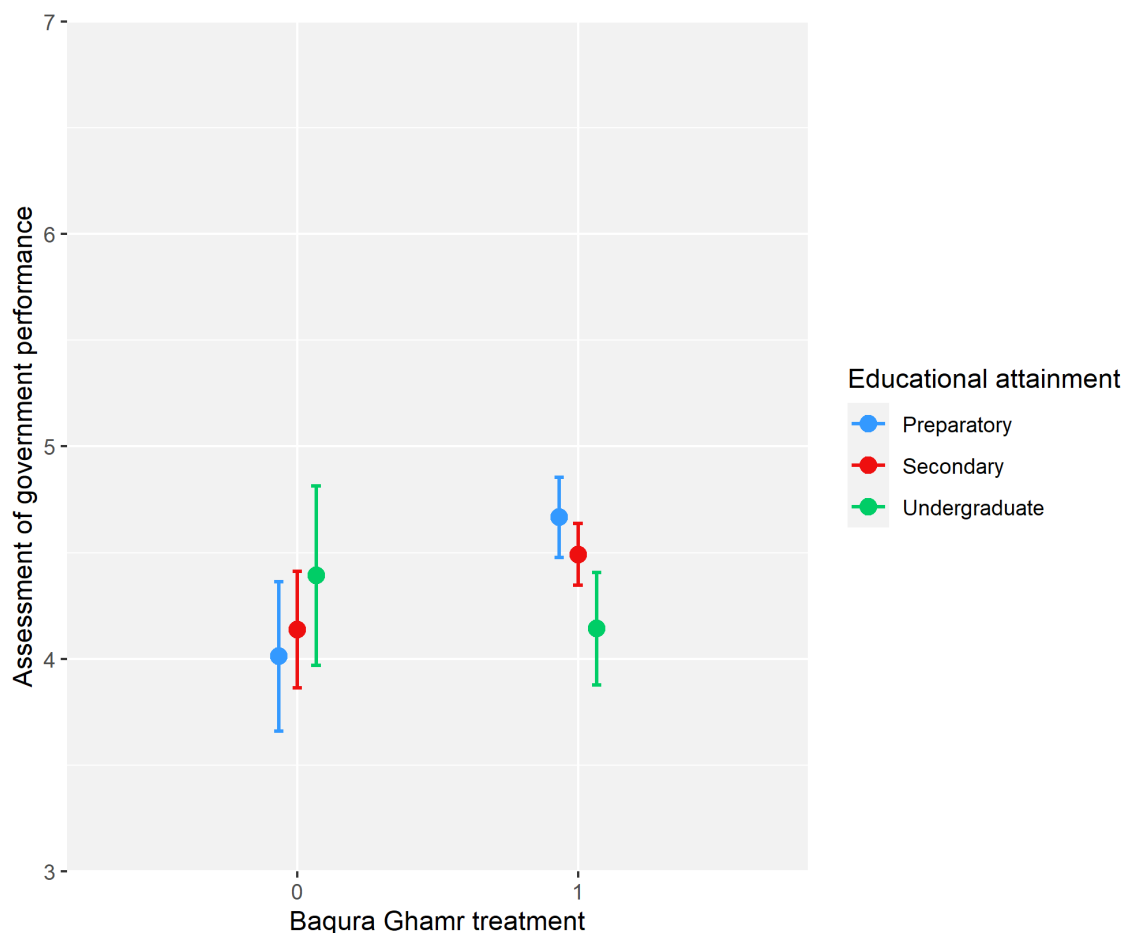
Table 3.1: Effect of Baqura-Ghamr treatment on assessment of government performance

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 |
|----------------------------------------------------|----------------------|----------------------|----------------------|----------------------|-------------------|----------------------|---------------------|
| Baqura-Ghamr treatment | 0.006 (0.141) | 0.230 (0.180) | 0.242 (0.161) | 1.483** (0.470) | 0.470* (0.202) | 0.500* (0.210) | 1.893*** (0.498) |
| Educational attainment | -0.093 (0.051) | -0.094 (0.055) | -0.095 (0.051) | 0.121 (0.093) | -0.089 (0.051) | -0.091 (0.051) | 0.127 (0.093) |
| Social media | -0.722*** (0.135) | -0.769*** (0.134) | -0.730*** (0.135) | -0.710*** (0.135) | -0.343 (0.242) | -0.736*** (0.135) | -0.459 (0.242) |
| Palestinian origin | 0.421** (0.138) | 0.436** (0.138) | 0.312* (0.145) | 0.327* (0.145) | 0.297 (0.145) | 0.668** (0.236) | 0.696** (0.236) |
| Baqura-Ghamr treatment x Educational attainment | | | | -0.306** (0.105) | | | -0.302** (0.106) |
| Baqura-Ghamr treatment x Social media | | | | | -0.534 (0.277) | | -0.355 (0.279) |
| Baqura-Ghamr treatment x Palestinian origin | | | | | | -0.562 (0.296) | -0.598* (0.297) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | | | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses (cluster-robust in Model 2, with pair membership as clustering variable)

*p<0.05; **p<0.01; ***p<0.001

Figure 3.7: Predicted values of respondents' assessment of government performance by educational attainment (Model 7)



Note: Error bars represent 95% confidence intervals

Regarding the other interaction terms, Model 7 reports no heterogeneous effect for those who use social media as their primary source of news, versus those who do not. Model 5 shows that this lack of a heterogeneous effect is not artefactual to the inclusion of multiple interaction terms in Model 7. In contrast, Model 7 does report a heterogeneous treatment effect with respect to national origin, suggesting that those of Palestinian origin did not rally while others did. However, this finding is not robust. The interaction term does not achieve statistical significance in Model 6, nor does it achieve statistical significance in OLS regressions using full optimal matching (see Table 3.4 of the robustness section).

Educational attainment is correlated with income and age across a range of contexts. These correlations are present in the Jordanian sample for the fifth wave

of the Arab Barometer, although they are low (ρ for educational attainment and income quintile = 0.37; ρ for educational attainment and age = -0.19). Importantly, since the controversial income tax law proposals discussed above involved middle class tax increases ([Sky News Arabia, 2018a](#)) it could be that the lack of a rallying effect among more highly educated Jordanians is related to the fact that the contemporaneous tax proposals would have had a greater impact on them. With regard to age, it could be that those with lower levels of education are older Jordanians with more historical knowledge of the Baqura-Ghamr issue as well as personal recollections of conflict periods with Israel more generally. This might lead us expect older Jordanians to exhibit a greater rallying effect in response to the treatment. To test for these possibilities, Models 8 and 9 include interaction terms for household income quintile, age, and age squared. The models report no heterogeneous treatment effects for either income or age.

Table 3.2: Effect of Baqura-Ghamr treatment on assessment of government performance (OLS)

| | Model 8 | Model 9 |
|---------------------------------------------|----------------------|----------------------|
| Baqura-Ghamr treatment | 0.507 (0.380) | -0.621 (0.961) |
| Age | -0.121*** (0.023) | -0.149*** (0.037) |
| Age squared | 0.001*** (0.0002) | 0.002*** (0.0004) |
| Educational attainment | -0.094 (0.051) | -0.094 (0.051) |
| Income quintile | 0.146 (0.090) | 0.086 (0.050) |
| Social media | -0.731*** (0.135) | -0.732*** (0.135) |
| Palestinian origin | 0.313* (0.145) | 0.315* (0.145) |
| Baqura-Ghamr treatment x Income quintile | -0.082 (0.102) | |
| Baqura-Ghamr treatment x Age | | 0.041 (0.045) |
| Baqura-Ghamr treatment x Age squared | | -0.0004 (0.0005) |
| Controls | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ |

Robust standard errors in parentheses

*p<0.05; **p<0.01; ***p<0.001

Finally, in light of the well-established effect of media consumption on rallying, the finding that respondents' primary news source does not moderate the rallying effect is surprising. Here, it is worth noting that there is evidence to suggest that authoritarian regime media affects individuals differently according to their level of educational attainment. In the context of 1970s Brazil, greater exposure to authoritarian regime media was found to be positively associated with support for government policies among those with lower levels of education, whereas it had an inverse U-shaped relationship with support for government policies among those with higher levels of education ([Geddes and Zaller, 1989](#)). Given that news accessed through social media likely contains a lower proportion of regime generated content than traditional media, it may be that the effect of media consumption patterns on rallying varies according to educational attainment levels. To test this, I introduce a three-way interaction between the treatment, educational attainment, and primary news source. Model 10 reports that this interaction term is not statistically significant.

Table 3.3: Effect of Baqura-Ghamr treatment on assessment of government performance (OLS)

| | Model 10 |
|-------------------------------------------------------------------|---------------------|
| Baqura-Ghamr treatment | 2.135*** (0.588) |
| Educational attainment | 0.184 (0.115) |
| Social media | 0.265 (0.841) |
| Palestinian origin | 0.687** (0.236) |
| Baqura-Ghamr treatment x Educational attainment | -0.365** (0.133) |
| Baqura-Ghamr treatment x Social media | -1.157 (0.970) |
| Baqura-Ghamr treatment x Palestinian origin | -0.588* (0.297) |
| Baqura-Ghamr treatment x Educational attainment x Social media | 0.193 (0.218) |
| Controls | ✓ |
| Regional fixed effects | ✓ |

Robust standard errors in parentheses

*p<0.05; **p<0.01; ***p<0.001

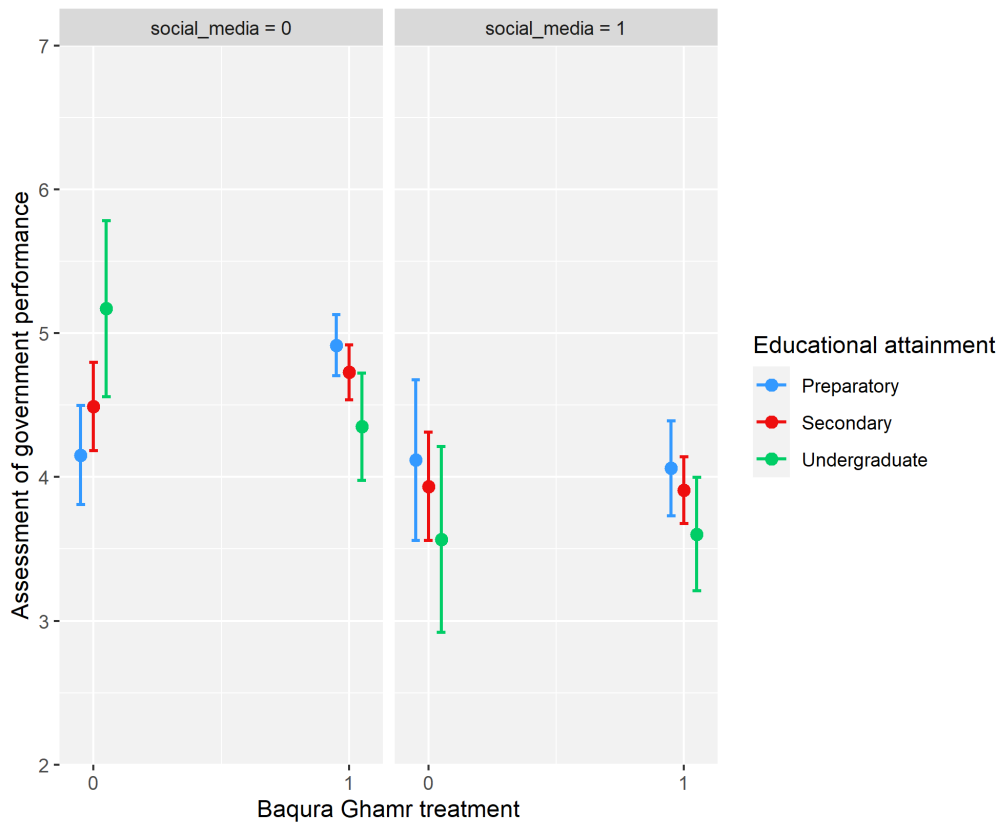
3.8 Robustness

A number of supplementary analyses, presented below, demonstrate the robustness of the findings pertaining to the size of the Baqura-Ghamr rally and its heterogeneity according to educational attainment. The absence of a two-way interaction effect with respondents' primary news source is also a robust finding.

Table 3.4 presents models examining the treatment and key interaction effects using OLS with full optimal matching. Model 14 includes interaction terms for the three moderating variables of interest. As with the matched sample, this model reports a negative interaction effect with level of educational attainment. Additionally, it reports no heterogeneous effects according to respondents' primary news source and national origin. Models 12 and 13 show that the lack of these heterogeneous effects is not artefactual to the inclusion of multiple interaction effects in Model 14.

In contrast to the headline findings, Model 15 reports that the three-way interaction effect between the Baqura-Ghamr treatment, educational attainment and social media is statistically significant. This finding should therefore be considered suggestive rather than robust. To aid interpretation of this coefficient, Figure 3.8 presents predicted values for assessment of government performance by level of educational attainment and primary news source based on Model 15. This figure suggests that the regime’s agenda setting power during the Baqura-Ghamr episode may have been limited to individuals who primarily consume traditional news media.

Figure 3.8: Predicted values of respondents’ assessment of government performance by educational attainment and primary news source (Model 15)



Note: Error bars represent 95% confidence intervals

Table 3.4: Effect of Baqura-Ghamr treatment on assessment of government performance (OLS with optimal full matching)

| | Model 11 | Model 12 | Model 13 | Model 14 | Model 15 |
|----------------------------------------------------------------------|----------------------|--------------------|----------------------|---------------------|----------------------|
| Baqura-Ghamr treatment | 1.615** (0.543) | 0.406 (0.238) | 0.326 (0.222) | 1.738** (0.570) | 2.434*** (0.668) |
| Educational attainment | 0.168 (0.112) | -0.093 (0.055) | -0.093 (0.055) | 0.159 (0.114) | 0.340* (0.138) |
| Social media | -0.768*** (0.134) | -0.457 (0.318) | -0.769*** (0.134) | -0.626 (0.323) | 1.536 (1.036) |
| Palestinian origin | 0.440** (0.138) | 0.436** (0.138) | 0.708* (0.287) | 0.727* (0.283) | 0.665* (0.285) |
| Baqura-Ghamr treatment x Educational attainment | -0.350** (0.121) | | | -0.336** (0.123) | -0.528*** (0.153) |
| Baqura-Ghamr treatment x Social media | | -0.428 (0.363) | | -0.195 (0.368) | -2.500* (1.159) |
| Baqura-Ghamr treatment x Palestinian origin | | | -0.374 (0.349) | -0.393 (0.343) | -0.331 (0.344) |
| Baqura-Ghamr treatment x Educational attainment x Social media | | | | | 0.559* (0.248) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | | | | | |

Cluster-robust standard errors in parentheses (pair membership as clustering variable)

*p<0.05; **p<0.01; ***p<0.001

Following Cinelli and Hazlett (2020), I also present results from a formal sensitivity analysis in which I estimate the level of unobserved confounding that would nullify the treatment effect. Table 3.5 presents regression results for the OLS model with regional fixed effects including only the educational attainment interaction term (Model 4) alongside two sensitivity reporting statistics. The robustness value of 3.00 percent means that if confounding explains less than 3.00 percent of the residual variance in exposure to the treatment *and* less than 3.00 percent of the residual variance in the outcome, it cannot be strong enough to nullify the treatment effect at a threshold of $p < 0.05$. The partial R^2 of the treatment with the outcome has a value of 0.55% percent, meaning that that an extreme confounder (orthogonal to the covariates) that explains 100% of the residual variance of the outcome, would need to explain at least 0.55% of the residual variance of the treatment to fully account for the observed estimated effect. To aid interpretation of these statistics, it is possible to estimate how much stronger unobserved confounding would have to be than a key observed covariate to nullify the treatment effect. To reduce the coefficient for the treatment effect beyond $p < 0.05$, there would have to be an unobserved confounder at least 3.6 times as strong as use of social media as a primary news source. Use of social media as a primary news source is a powerful variable with a t-statistic of -5.229 and a coefficient of -0.710. Thus, an assumption that unobserved confounding is less than 3.6 times the social media variable sets a high bar.

Table 3.5: Sensitivity analysis

| | Dependent variable: Assessment of government performance | | | | | |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------|---------|--------------------|-------|--------------------|
| | Estimate | Standard error | t-value | $R^2_{Y \sim D X}$ | RV | $RV_{\alpha=0.05}$ |
| Baqura-Ghamr treatment | 1.487 | 0.446 | 3.323 | 0.55% | 7.17% | 3.00% |
| Note: df = 1995; Bound (3.6x Social media): $R^2_{Y \sim Z D,X} = 5.09\%$, $R^2_{D \sim Z X} = 0.58\%$ | | | | | | |

A final concern relates to the measurement of news media consumption. A binary variable measuring whether social media is a respondent's primary news source may fail to capture key features of media consumption patterns. To examine this possibility, I test an alternative specification of this variable alongside four alternative

media consumption variables. The alternative specification is a dummy variable for respondents whose primary news source is television. The alternative measures of media consumption used are: 1) the typical frequency of a respondent’s internet use, 2) the number of hours on a typical day that a respondent uses social media, 3) the number of hours on a typical day that a respondent watches television, 4) the combined number of hours on a typical day that the respondent uses social media and watches television. Across all five models, the two-way interaction term between the Baqura-Ghamr treatment and media consumption variables does not achieve statistical significance (see Table 3.11, [Appendix E](#)).

3.9 Discussion and conclusions

Recent scholarship has demonstrated that autocrats often use low-cost diversions to bolster public opinion toward the government at moments of actual or anticipated political instability. This paper aims to shed light on the effectiveness of this tactic, building on and extending the findings of recent experimental evidence on the effects of diversionary rhetoric ([Alrababa’h, 2021](#)). It significantly enhances the external validity of research in this area by investigating a diversion occurring in a naturalistic setting and a previously unstudied country case. Moreover, it goes beyond diversionary rhetoric to examine a diversionary policy with material implications.

The findings demonstrate that low-cost diversions can produce modest rallying effects among those with lower levels of educational attainment. Because these findings emerge from a “most likely” case, they are suggestive of the ceiling of possible low-cost rallying effects. The finding that the reach and effect of this low-cost diversion is heavily circumscribed by demographic characteristics highlights the limitations of such tactics.

The headline finding that the rallying effect decreases then disappears as educational attainment increases is highly robust. Unfortunately, concerns regarding post-treatment bias preclude the use of attitudinal variables from the fifth wave

of the Arab Barometer to further explore the mechanism underlying these findings. However, it is worth noting that educational attainment in contemporary Jordan is associated with a number of potentially relevant political attitudes. Analysis of the Arab Barometer data for waves 1-4 and 6 of the survey shows that educational attainment among Jordanians is consistently negatively correlated with their assessment of government performance and trust in government. In contrast, educational attainment is consistently positively correlated with respondents' interest in politics.¹²

Contrary to findings from recent research on rallying effects in Russia ([Hale, 2018, 2022](#)), respondents' preferred news source was not found to moderate the Baqura-Ghamr rally. This finding is unexpected for a number of reasons. First, it is well established that rallying effects in advanced industrialized democracies are moderated by the nature of media coverage that a rally event receives (see, for example, [Baker and Oneal, 2001](#); [Brody and Shapiro, 1991](#); [Groeling and Baum, 2008](#)). Second, high levels of state control over the traditional media environment in authoritarian settings might lead us to expect particularly large differences in the news content consumed by those who rely on traditional versus social media as their primary news source (and therefore, different changes in their attitudes). My findings provide suggestive evidence that the lack of a media effect might be due to differences in how individuals with varying educational backgrounds interpret information from traditional media sources, although this evidence is not conclusive. Future research on rallying in authoritarian settings could further investigate how educational attainment and media consumption patterns interact to shape political attitudes in the digital age.

A second possible explanation for this finding relates to the limitations of Arab Barometer data regarding media consumption patterns. Recent evidence has shown that users of different Russian social media platforms rallied in different ways fol-

¹²Based on OLS regressions. The OLS models controlled for age, age squared, gender, household income quintile, public sector employment, and national origin.

lowing the annexation of Crimea ([Hale, 2022](#)). However, the Arab Barometer does not disaggregate social media news consumption by platform. The different ways in which various social media platforms shape public opinion in the Arab region is an important question for future research, which would contribute to a more nuanced understanding of how political attitudes are shaped in the region.

3.10 Appendix A

Translation of headlines and sub-headings in Figure 3.2

Top-left image

Sub-heading 1: “His Royal Highness confirms: Baqura and Ghamr are Jordanian and will remain Jordanian. We shall assert full sovereignty over our territory.”

Headline: “The King ends the Baqura and Ghamr annexes of the peace treaty.”

Sub-heading 2: “Our priorities are to protect our interests and do whatever necessary for Jordan and Jordanians.”

Sub-heading 3: “Widespread public approval: The royal decision brings pride and honor.”

Top-right image

Headline: “King: We have decided to end the Baqura and Ghamr annexes.”

Sub-heading 1: “Israel has been notified of the Jordanian decision to end the annexes.”

Sub-heading 2: “Baqura and Ghamr are Jordanian and will remain Jordanian. We assert full sovereignty over our territory.”

Sub-heading 3: “Our priorities in such difficult regional circumstances are to protect our interests and do whatever necessary for Jordan and Jordanians.”

Sub-heading 4: “Baqura and Ghamr have been at the top of our priorities for a long period.”

Bottom-left image

Headline 1: “King: We have decided to end the Baqura and Ghamr annexes.”

Headline 2: “Jordanians: Long live the King.”

Sub-heading 1: “Razzaz [Prime Minister]: The King has said the final word, so congratulations to His Royal Highness and to our people.”

Sub-heading 2: “Senate President: The King has triumphed on behalf of the Jorda-

nian state's interests."

Sub-heading 3: "House of Representatives President: On the King's path, we move forward."

Sub-heading 4: "House of Representatives: A decision bringing pride and honor."

Sub-heading 5: "Taher al-Masri: A free, sovereign decision springing from our national interest."

Sub-heading 6: "Professional syndicates: A stance in the tradition of the Hashemites."

Sub-heading 7: "Political parties: A victory for Jordan and its political will."

Bottom-right image

Headline 1: "Israeli shock and Jordanian joy."

Sub-heading 1: "Palestinian leaders to ad-Dustour: The King's decision has restored confidence within the Arab individual."

Sub-heading 2: "Israeli minister threatens to cut Amman's water supply and Jordan responds: No one has this capacity."

Sub-heading 3: "Al-Anani describes scenarios of Israeli sabotage against Jordan to ad-Dustour."

Sub-heading 4: "The Senate: The King's decision is a national boost to all our institutions."

Sub-heading 5: "Al-Taibi: A brave national decision to which Israel has no retort."

Sub-heading 6: "Israeli farmers: The decision is a catastrophe and a death sentence."

Headline 2: "Experts demand crafting a media narrative to counter Israeli campaigns."

Sub-heading 7: "Al-Abbadi: Their media machinery is preparing negative campaigns against Jordan."

Sub-heading 8: "Al-Habashneh: The ideal course is to stand behind the Hashemite leadership."

Sub-heading 9: "Al-Sa'aydeh: Our role is to be prepared, to respond with arguments and evidence."

3.11 Appendix B

Daily internet search interest in “Baqura and Ghamr” for Jordan, September-October 2018

Table 3.6: Daily internet search interest in “Baqura and Ghamr” for Jordan, September-October 2018¹³

| Date | “الباقورة والغمر” (Baqura and Ghamr) |
|------------|-----------------------------------------|
| 01/09/2018 | 0 |
| 02/09/2018 | 0 |
| 03/09/2018 | 0 |
| 04/09/2018 | 0 |
| 05/09/2018 | 0 |
| 06/09/2018 | 0 |
| 07/09/2018 | 0 |
| 08/09/2018 | 0 |
| 09/09/2018 | 0 |
| 10/09/2018 | 0 |
| 11/09/2018 | 0 |
| 12/09/2018 | 0 |
| 13/09/2018 | 0 |
| 14/09/2018 | 0 |
| 15/09/2018 | 0 |
| 16/09/2018 | 0 |
| 17/09/2018 | 0 |
| 18/09/2018 | 0 |
| 19/09/2018 | 0 |

Table 3.6 continued from previous page

| Date | “الباقورة والغمر” (Baqura and Ghamr) |
|------------|-----------------------------------------|
| 20/09/2018 | 0 |
| 21/09/2018 | 0 |
| 22/09/2018 | 0 |
| 23/09/2018 | 0 |
| 24/09/2018 | 0 |
| 25/09/2018 | 0 |
| 26/09/2018 | 0 |
| 27/09/2018 | 0 |
| 28/09/2018 | 0 |
| 29/09/2018 | 0 |
| 30/09/2018 | 0 |
| 01/10/2018 | 0 |
| 02/10/2018 | 0 |
| 03/10/2018 | 0 |
| 04/10/2018 | 0 |
| 05/10/2018 | 0 |
| 06/10/2018 | 0 |
| 07/10/2018 | 0 |
| 08/10/2018 | 0 |
| 09/10/2018 | 0 |
| 10/10/2018 | 15 |
| 11/10/2018 | 0 |
| 12/10/2018 | 0 |
| 13/10/2018 | 0 |
| 14/10/2018 | 29 |

Table 3.6 continued from previous page

| Date | “الباقورة والغمر” (Baqura and Ghamr) |
|------------|-----------------------------------------|
| 15/10/2018 | 0 |
| 16/10/2018 | 0 |
| 17/10/2018 | 0 |
| 18/10/2018 | 0 |
| 19/10/2018 | 16 |
| 20/10/2018 | 0 |
| 21/10/2018 | 100 |
| 22/10/2018 | 84 |
| 23/10/2018 | 57 |
| 24/10/2018 | 28 |
| 25/10/2018 | 0 |
| 26/10/2018 | 15 |
| 27/10/2018 | 0 |
| 28/10/2018 | 0 |
| 29/10/2018 | 0 |
| 30/10/2018 | 0 |
| 31/10/2018 | 0 |

¹³Source: Google Trends. Google Trends data uses an anonymized, unbiased sample of Google search data scaled on a range of 0 to 100 based on a topic’s proportion to all searches on all topics in a given geography. Repeated searches from the same person over a short period of time are eliminated. The data only includes popular search terms, and search terms with low volume appear as “0”.

3.12 Appendix C

Compound treatment tests

Table 3.7: Effect of October 2018 flash flood deaths on assessment of government performance

| | Estimate | Standard error* | p-value |
|-------------------------------|-----------------|------------------------|----------------|
| Post-flash flood deaths dummy | -0.027 | 0.128 | 0.830 |

* Robust standard errors were used for this analysis

Table 3.8: Effect of Baqura-Ghamr treatment on assessment of government performance (OLS)

| | Model 16 | Model 17 | Model 18 | Model 19 | Model 20 |
|-------------------------------------------------|----------------------|----------------------|-------------------|----------------------|---------------------|
| Baqura-Ghamr treatment | 0.197 (0.198) | 1.527** (0.489) | 0.405 (0.235) | 0.464 (0.239) | 1.944*** (0.516) |
| Post-flash flood deaths dummy | 0.107 (0.195) | 0.136 (0.194) | 0.104 (0.195) | 0.108 (0.195) | 0.135 (0.194) |
| Educational attainment | -0.106 (0.054) | 0.119 (0.093) | -0.100 (0.054) | -0.101 (0.054) | 0.128 (0.093) |
| Social media | -0.676*** (0.142) | -0.655*** (0.142) | -0.338 (0.243) | -0.683*** (0.142) | -0.462 (0.243) |
| Palestinian origin | 0.306* (0.150) | 0.322* (0.150) | 0.293 (0.150) | 0.667** (0.237) | 0.705** (0.236) |
| Baqura-Ghamr treatment x Educational attainment | | -0.331** (0.107) | | | -0.332** (0.108) |
| Baqura-Ghamr treatment x Social media | | | -0.482 (0.282) | | -0.288 (0.284) |
| Baqura-Ghamr treatment x Palestinian origin | | | | -0.590 (0.302) | -0.640* (0.302) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses

*p<0.05; **p<0.01; ***p<0.001

3.13 Appendix D

Unrelated time trend tests

Model 21, below, examines the relationship between survey respondents' assessment of government performance and the survey fielding day for respondents in the pre-treatment (control) group. The key independent variable is the day during fielding of the survey on which the respondent was interviewed, measured on a six-point scale (day 1 – day 6). The model reports no association between the two variables.

Because the observed treatment effect is heterogeneous for respondents with different levels of educational attainment, I include a model (Model 22) containing an interaction term for educational attainment. This model reports no association between assessment of government performance and survey fielding day, and no statistically significant interaction effect.

Table 3.9: Relationship between assessment of government performance and survey fielding day for control group respondents

| | Model 21 | Model 22 |
|------------------------------|-------------------|------------------|
| Day | -0.066 (0.055) | 0.126 (0.177) |
| Educational attainment | | 0.278 (0.183) |
| Day x Educational attainment | | -0.05 (0.041) |

Robust standard errors in parentheses

*p<0.05; **p<0.01; ***p<0.001

In Model 23, below, I construct a placebo treatment which splits the control group at its median and test for the absence of an effect at that point. I find that the placebo treatment has no significant effect.

Because the observed treatment effect is heterogeneous for respondents with different levels of educational attainment, I include a model (Model 24) containing an interaction term for educational attainment. This model reports no educational

attainment interaction effect for the placebo treatment.

Table 3.10: Placebo test for pre-treatment trends in respondents' assessment of government performance

| | Model 23 | Model 24 |
|----------------------------------|-------------------|-------------------|
| Placebo | -0.100 (0.257) | 0.995 (0.831) |
| Educational attainment | 0.141 (0.099) | 0.338* (0.170) |
| Placebo x Educational attainment | | -0.279 (0.199) |
| Controls ^a | ✓ | ✓ |

Robust standard errors in parentheses

*p<0.05; **p<0.01; ***p<0.001

^aIncluding use of social media as a primary news source and national origin.

3.14 Appendix E

Alternative media consumption measures

The following alternative specifications/ measures of media consumption were tested:

- Dummy variable for respondents whose primary news source is television (Model 25).
- Typical frequency of internet use on a six-point scale ranging from "never" to "throughout the day" (Model 26).
- Time spent using social media on a typical day (Model 27).
- Time spent watching television on a typical day (Model 28).
- Combined time spent using social media and watching television on a typical day (Model 29).

Table 3.11: Effect of Baqura-Ghamr treatment on assessment of government performance (OLS)

| | Model 25 | Model 26 | Model 27 | Model 28 | Model 29 |
|-----------------------------------------------|--------------------|-------------------|--------------------|--------------------|--------------------|
| Baqura-Ghamr treatment | 0.113 (0.202) | 0.469 (0.401) | 0.234 (0.357) | 0.524 (0.401) | 0.484 (0.537) |
| Educational attainment | -0.107* (0.051) | -0.078 (0.053) | -0.084 (0.052) | -0.128* (0.051) | -0.103* (0.052) |
| Media consumption | 0.363 (0.242) | -0.089 (0.067) | -0.305* (0.123) | 0.109 (0.151) | -0.122 (0.102) |
| Palestinian origin | 0.269 (0.145) | 0.287* (0.145) | 0.288* (0.145) | 0.257 (0.145) | 0.270 (0.146) |
| Baqura-Ghamr treatment x Media consumption | 0.274 (0.279) | -0.051 (0.075) | -0.008 (0.138) | -0.133 (0.177) | -0.057 (0.117) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses

*p<0.05; **p<0.01; ***p<0.001

4 Who Supports Political Dissent in the MENA Region? Survey Evidence from Jordan

4.1 Introduction

Since the 2011 Arab uprisings, mass protest has become an increasingly salient mode of political dissent in the Middle East and North Africa (MENA). Although the initial wave of Arab Spring protests gave way to demobilization in several countries, 2019 saw the reemergence of large-scale anti-regime protests in Algeria and Sudan as well as mass mobilization expressing political and socioeconomic grievances in Lebanon and Iraq. But whereas political science has examined the determinants of protest participation in the region, little is known about the factors that shape public opinion toward protest in MENA.

Public opinion toward protest matters for several reasons. Across societies, a very small proportion of individuals participate in protests while the large majority plays a bystander role (Brancati, 2016: 23-25). Research has shown that public support for a protest movement can increase its influence, spur policy change, and even play a role in the movement's success (see, for example, Clawson and Clawson, 1999; Santoro, 2002; Wasow, 2020). Importantly, in non-democratic settings, citizen attitudes toward anti-government mobilization can provide insight into the nature of popular consent to authoritarianism. In the context of MENA, as a number of scholars have noted (Loewe et al., 2021; Weipert-Fenner, 2021), disruptive mass protest expresses a rejection of the authoritarian social contract.¹⁴ Thus, the determinants of support for such protest can provide interesting insights into the oft-discussed erosion of this contract (Devarajan and Ianchovichina, 2018; Hinnebusch, 2020; Loewe et al., 2021).

¹⁴I follow Loewe and his colleagues (2021: 3) in defining the social contract as a set of "explicit or implicit agreements between all relevant societal groups and the sovereign (i.e., the government or any other actor in power), defining their rights and obligations toward each other." I define the authoritarian social contract broadly as one in which citizens relinquish political rights in return for state provision of political and economic security.

The lack of research on public opinion toward protest in the MENA region is unsurprising given the dearth of quantitative data on this issue. To address this lacuna, this article draws on novel data from a two-wave, nationally representative survey fielded during the largest labor protest in Jordanian history: a public sector teachers' strike which paralyzed the school system for four weeks in late 2019 and was strongly repressed by the regime. To the best of my knowledge, this is the only nationally representative survey on protest support in MENA, which:

1. Directly records both respondents' support for protester demands and their level of support for the protest itself. This allows us to disentangle these two related factors to a far greater extent than previous research and thus capture respondents' underlying attitudes toward the legitimacy of disruptive anti-government mobilization;
2. Was fielded during the course of the protest under study, and therefore records attitudes that are not influenced by hindsight bias (see, for example, [Bertolotti and Catellani, 2021](#); [Blank et al., 2003](#); [Blank et al., 2008](#)).

Additionally, the fielding of two survey waves allows for the investigation of changes in protest support over time.

This article also contributes to an emerging literature on attitudes to labor protest, which has hitherto focused on the case of the United States. By investigating the case of Jordan, it seeks to advance a growing research agenda on labor mobilization in the MENA region ([Bishara et al., 2022](#)).

In line with the expectations of some versions of modernization theory, I find that educational attainment consistently emerges as the primary determinant of support for anti-government mobilization. The socioeconomic grievances often emphasized in the literature on the political economy of MENA play a lesser role. Support for anti-government mobilization is not associated with relative deprivation among university-educated respondents, although this group is more likely to have been sympathetic toward the strikers' pay demands. In contrast, support for anti-

government mobilization is associated with being a university-educated public sector employee. Finally, contrary to previous findings from the literature on the effects of protest on public opinion, attitudes toward the strike are found to be remarkably stable over time.

4.2 Support for mass protest in MENA

Existing data on attitudes toward protest in MENA is characterized by a number of limitations. Although several nationally representative surveys fielded in Egypt and Tunisia recorded respondents' attitudes to the Arab Spring protests in their respective countries ([Abbott et al., 2017](#); [Arab Barometer, 2011](#); [Arab Center for Research and Policy Studies, 2020](#)), none of them directly recorded respondent support for protester demands (perhaps unsurprisingly, given the multiplicity of protester demands during these revolutions - see, for example, [Hinnebusch, 2020](#)). Due to this limitation, these surveys do not allow us to disentangle individuals' general attitude toward anti-government mobilization from their support for protesters' specific demands. Furthermore, these surveys were conducted between four months and three years after the ouster of the former Egyptian and Tunisian presidents and it is therefore likely that survey responses were influenced by hindsight bias (see, for example, [Bertolotti and Catellani, 2021](#); [Blank et al., 2003](#); [Blank et al., 2008](#)). Other nationally representative surveys that have recorded attitudes toward protest in Algeria ([Arab Center for Research and Policy Studies, 2020](#)), Iraq ([Arab Center for Research and Policy Studies, 2020](#); [Cooke and Mansour, 2020](#); [Enabling Peace in Iraq Center, 2021](#); [Silverman et al., 2022](#)), Lebanon ([Arab Center for Research and Policy Studies, 2020](#)), and Sudan ([Arab Center for Research and Policy Studies, 2020](#)) are characterized by the same limitations. It is therefore unsurprising that we know little about which MENA citizens support mass anti-government mobilization.

In this study, I draw on evidence from a two-wave, nationally representative survey fielded during the largest labor protest in Jordanian history, a highly disruptive public sector teachers' strike strongly opposed and repressed by the regime (Lacouture, 2022). To the best of my knowledge, this is the only nationally representative survey on support for the protest in the region which records both respondent support for protesters' demands and their attitudes toward the protest itself. Unlike the mass protests which swept the region in 2011 and 2019, the protest had a clearly communicated key demand (a 50 percent increase in teachers' basic salary) thus simplifying the operationalization and measurement of respondents' policy position toward protester demands. Additionally, the survey was fielded while the protest was underway and its outcome still unknown, increasing confidence in the validity of recorded responses.

4.3 The political economy of protest in MENA

A number of socioeconomic developments witnessed in MENA over the past 30 years have been argued to have led to an erosion of the authoritarian social contract in the region (see, for example, Bayat, 2013: 33; Heydemann, 2020; Loewe et al., 2021). However, empirical support for these arguments remains limited. While a number of studies on the determinants of participation in the Arab Spring protests have drawn on such arguments to motivate their hypotheses, the scope of these studies is limited and their results have been mixed. The current study contributes to this literature by presenting a new test of these influential arguments using evidence from the Jordanian case.

This study tests two influential arguments linking socioeconomic change in MENA to an erosion of the authoritarian social contract. First, it has been argued that the fraying of the authoritarian social contract in the region (especially as manifested in the protest movements of the Arab Spring) is partly due to a growing gap between people's expectations of social mobility and their perception of existing levels of social mobility (Cammatt and Diwan, 2013; Cammatt et al., 2015: 3,

5, 30, 125, 156-158; [Campante and Chor, 2012](#); [Heydemann, 2020](#); [Ibrahim, 2021](#); [Kamrava, 2014](#)). According to this argument, during the early post-independence period, citizens experienced high levels of social mobility related to the expansion of higher education opportunities and there was an expectation that social mobility would continue. In particular, the expansion of university education is thought to have led to higher material expectations among citizens, including through implicit and explicit employment guarantees in the public sector for university graduates ([Salehi-Isfahani, 2012](#)). However, population growth, poor economic performance and increased levels of higher education among the population led to a scarcity of attractive employment opportunities. This resulted in the emergence of what Bayat (2011, cited in [Kandil, 2012](#)) has described as ‘the middle class poor’: a social group with middle-class aspirations resulting from white-collar educational status, but whose income fails to match these aspirations. This mismatch between the expectations of university-educated citizens and poor material outcomes is argued to have resulted in relative deprivation among this social group,¹⁵ fueling socioeconomic grievances and political dissent. This argument leads to the following hypothesis:

Hypothesis 1 *Relatively deprived university graduates are more likely to support anti-government mobilization.*

Second, it has been argued that white-collar state employees represent a powerful group of middle-class interests in Arab states who are increasingly dissatisfied with their position in the region’s authoritarian coalitions ([Cammett et al., 2015](#): 20-22; [El-Haddad, 2020](#); [Schmoll, 2017](#): 163; 228-229). Indeed, over the past fifteen years, white-collar public sector workers in countries including Algeria, Egypt, Jordan, Morocco, and Tunisia have participated in large-scale disruptive labor protests to demand improved working conditions ([Bajec, 2022](#); [Bishara, 2018](#); [El Atti, 2022](#); [Hartshorn, 2019](#); [Lacouture, 2022](#); [Schmoll, 2017](#); [Volpi, 2013](#); [Yousfi, 2017](#)). This

¹⁵Broadly defined, relative deprivation is the judgement that an individual or their ingroup is at an unfair disadvantage compared to an expected societal standard (see [Smith et al., 2012](#), for a review).

argument leads to the following hypothesis:

Hypothesis 2a *University-educated public sector workers are more likely to support anti-government mobilization.*

In contrast, recent research on post-communist authoritarian regimes finds that white-collar public sector employees in these countries are more likely to support authoritarianism and that their employment status trumps their level of educational attainment in determining attitudes toward political dissent ([Rosenfeld, 2020](#)). Although this argument is based on evidence from the post-communist region, Rosenfeld argues that this finding should travel to other late-developing authoritarian settings with high levels of state economic engagement ([Rosenfeld, 2020: 8](#)). This leads to the following alternative hypothesis:

Hypothesis 2b *University-educated public sector workers are less likely to support anti-government mobilization.*

To date, several studies examining the determinants of protest participation in Egypt and Tunisia have drawn on arguments from the MENA political economy literature to motivate their hypotheses. Overall, the results of these studies have been mixed. Using data from surveys fielded in Egypt and Tunisia shortly after the 2011 revolutions in those countries, [Beissinger et al. \(2015\)](#) found that protest participants during the Egyptian revolution were disproportionately likely to be middle class, while those in Tunisia came from both the middle and working classes, and were disproportionately likely to be young. Drawing on a qualitative analysis of pre-uprising economic policies in these two countries, the authors explain their findings as reflecting differing regime strategies in response to fiscal pressures. They argue that the Egyptian regime dismantled welfare protections that benefited the middle class, whereas Ben Ali's economic policies exacerbated regional disparities and fostered a pool of dissatisfied youth, thereby creating the basis for disproportionately

young cross-class protests that started in the provinces and slowly spread to the capital.

A second study on participation in the Tunisian revolution points in a different direction. [Doherty and Schraeder \(2018\)](#) have found limited evidence to support a connection between socioeconomic factors and mobilization. Using data from two different surveys on revolutionary participation, they found that, in some areas of Tunisia, the unemployed were more likely to participate in revolutionary protests than the employed. However, they also found that this is not the case when looking at Tunisia as a whole. This study also investigated the association between revolutionary participation and individual measures of relative deprivation. They expected that if relative deprivation distinguished participants from nonparticipants, the relationship between educational attainment and participation would be strongest among those with low household incomes (i.e., highly educated individuals with lower household incomes would be more likely to protest than those with higher household incomes) but found no such effect. They also expected that if relative deprivation distinguished participants from nonparticipants, the relationship between educational attainment and participation would be strongest among the unemployed (i.e., highly educated individuals who are unemployed would be more likely to protest than the employed). Again, they did not find any such effect.

Finally, a recent study on the nationwide bread riots that swept Egypt in 1977 has found a relationship between contentious mobilization and labor market status ([Ketchley et al.](#), unpublished). Using evidence from protest event data, the authors found that districts where employment in formal, insider sectors was highly concentrated saw the most intense rioting in response to austerity measures, even after accounting for district-level differences in mobilization capacity. This is consistent with the argument that dissatisfaction among members of a regime's authoritarian coalition leads to anti-government mobilization.

This study broadens the scope of research on the political economy of protest in

MENA in two ways. First, it introduces evidence from the Jordanian case. Second, it goes beyond protest participation to investigate attitudes of the general population. As discussed above, it is well established that a very small proportion of individuals engage in protest (Brancati, 2016). Furthermore, protest participation is a crude proxy for popular consent toward authoritarianism because it is strongly shaped by factors such as embeddedness in social networks (see, for example, Larson et al., 2019; Doherty and Schraeder, 2018) and patterns of state repression against protesters (see Earl, 2011, for a review). Investigating support for disruptive anti-government mobilization thus allows us to gain a clearer insight into the dynamics of popular consent to authoritarianism in MENA.

Finally, it is worth noting that while mass strike action may be considered routinized and arguably even non-contentious in some democratic contexts (see Biggs, 2015, for an overview of this debate), this is not the case in authoritarian contexts where the range of tolerated contentious performances is very narrow. Indeed, the Jordanian regime’s considerable repression of the teachers’ strike under study attests to the political nature of mass strike action in authoritarian settings.

4.4 Education and support for a protest

It is well-established that education shapes political attitudes in powerful ways (for example, Bratton et al., 2005; Croke et al., 2016; Friedman et al., 2011). In particular, several studies have found a positive association between educational attainment and favorable attitudes toward protest (Andrews et al., 2016; Hall et al., 1986; McCright and Dunlap, 2008).¹⁶ This is consistent with versions of modernization theory which posit that the expansion of education plays a key role in strengthening democratic values in society (Almond and Verba, 2015 [1963]; Lipset, 1959) and weakens individuals’ acceptance of traditional forms of authority (Inglehart and Welzel, 2005). This suggests the following hypothesis:

¹⁶Hall and his colleagues find that education increases general support for the protest. However, they also find that education reduces support for protests associated with blue-collar groups and for the use of violence by protesters.

Hypothesis 3 *Educational attainment is positively associated with support for anti-government mobilization, independently of the effect of related factors.*

4.5 Support for labor strikes

While a substantial body of scholarly literature has investigated the ways in which protest can affect public opinion (see, for example, [Andrews et al., 2016](#); [Branton et al., 2015](#); [Ketchley and El-Rayyes, 2021](#); [Tertytchnaya and Lankina, 2020](#); [Wallace et al., 2014](#)), there remains a dearth of research specifically investigating the attitudinal consequences of labor strikes. The small number of existing studies is based on evidence from advanced industrialized countries ([Bracic et al., 2020](#); [Hamann et al., 2016](#); [Hertel-Fernandez et al., 2021](#); [Schmidt, 1993](#)), with the relationship between strikes and public opinion yet to be systematically studied in late-developing contexts. In MENA, the salience of labor mobilization in the region’s politics over the past decade has led to the emergence of a growing research agenda on organized labor; however, this has tended to focus on explaining national variation in labor mobilization and the relationship between labor movements and other social movements ([Bishara et al., 2022](#)).

Recent research on the United States has found that labor strikes can boost public support for labor movements, even among those individuals upon whom they inflict costs. [Hertel-Fernandez et al. \(2021\)](#) found that first-hand exposure to large-scale teachers’ strikes and walkouts that occurred in six states during 2018 increased parents’ support for teachers and the labor movement, as well as their interest in labor mobilization. To what extent should we expect this finding to travel to other contexts? As [Feinberg et al. \(2020\)](#) have noted, protest actions perceived as moderate and unexceptional in one country context may well be perceived as extreme in another, with considerable implications for their effect on public opinion. Compared to the United States and Western Europe, the Arabic-speaking MENA region is characterized by extensive legal restrictions on labor mobilization ([International](#)

[Trade Union Confederation, 2022](#)). Therefore, a disruptive large-scale strike may be perceived by Arab publics as an extreme protest action. Importantly, recent experimental evidence suggests that protest behaviors that are perceived to be extreme reduce support for social movements ([Feinberg et al., 2020](#)). Relatedly, research on the attitudinal consequences of protest in Egypt during the 2011 post-Mubarak transition has shown that Egyptians exposed to highly disruptive forms of protest in their districts came to hold less favorable attitudes toward democracy ([Ketchley and El-Rayyes, 2021](#)). This suggests the following hypothesis:

Hypothesis 4 *Support for the teachers' strike is inversely related to the costs it imposes on an individual.*

This hypothesis suggests that the parents of children enrolled in Jordanian public sector schools should be less likely to support the strike and that this dampening of support will increase the longer that the strike continues. Because the survey data used in this study is comprised of two nationally representative survey waves fielded over a period of ten days, time trends can be leveraged to test this hypothesis.

4.6 Case description

Jordan is an upper-middle-income, resource-poor monarchy in which mass public employment has historically played an important role both in regime consolidation ([Peters and Moore, 2009](#); [Tell, 2013](#); [Yom, 2015](#)) and as a distributive institution ([Hertog, 2017](#)) and continues to play an important role in the economy. In 2021, public employment accounted for 39 percent of overall employment in the country, increasing to 64 percent of employment in the southern region of Jordan ([Jordanian Department of Statistics, 2022](#)).

Over the past fifteen years, Jordan's education sector has been among several that have witnessed sustained labor activism in the public sector (see, for example, [Ababneh, 2016](#); [Adely, 2012](#)). In 2010, Jordanian public sector teachers established a

protest movement to demand the right to establish a professional syndicate and a professional allowance to supplement their wages. This movement culminated in the establishment of the Jordanian Teachers' Syndicate (JTS) in 2012, a professional association in which membership was legally compulsory in order to practice the teaching profession. Public sector teachers continued to demand a professional allowance, organizing strikes to this end in both 2012 and 2014, the second of which ended with an informal agreement regarding the allowance signed by the syndicate and intermediaries of the government ([Mathhar, 2014](#)). Over the coming years, however, the Jordanian government argued that this agreement was not binding.

In September 2019, JTS attempted to stage a mass protest in the Jordanian capital against the government's refusal to institute the professional allowance. To prevent the protest from taking place, security forces shut down a number of major thoroughfares in Amman and set up checkpoints on highways throughout the country to prevent busloads of teachers from driving into the capital ([7iber, 2019](#)). Teachers who were able to reach the protest location were teargassed by security forces and tens were arrested ([7iber, 2019](#)). In response, JTS initiated a strike characterized by very high levels of teacher participation across the country ([Al-Jazeera, 2019](#); [Al-Mamlaka, 2019](#); [Al-Shar'an, 2019](#)) which paralyzed the public sector school system for almost a month. The strike ended with a formal agreement between JTS and the government to institute a professional allowance for all public sector teachers.

The 2019 teachers' strike was the most disruptive labor protest in Jordan's history and garnered a great deal of public attention. Importantly, there were high levels of public support for the teachers' pay demands with 60.2 percent of Jordanians expressing such support ([NAMA, unpublished dataset](#)). Levels of public support for the strike were significantly lower, however, with only 42.2 percent of Jordanians expressing support ([NAMA, unpublished dataset](#)).

4.7 Data and analysis

Survey data

To study the nature of public support for the strike and strikers' demands, I draw on data from a two-wave, nationally representative public opinion survey conducted during the teachers' strike by a Jordanian polling company (NAMA, unpublished dataset). The surveys were conducted by telephone interview during the first two weeks of the strike. In total, 2,516 respondents from all twelve governorates of Jordan were randomly selected from stratified sampling blocks. The first wave (n=1,266) was conducted between September 9-11, 2019. The second wave (n=1,250) was conducted between September 16-19, 2019. Both waves are nationally representative.

Dependent variables

The unit of analysis is an individual survey respondent, with the outcomes of interest being:

1. **Support for teacher pay demands.** A measure of whether the respondent supports the pay raise demanded by teachers. Respondents were informed that striking teachers were demanding an allowance equivalent to 50% of their basic wage. They were then asked, "In your opinion, do teachers deserve the 50% increase to their basic wage?" Respondents were given the option to answer "Yes", "No" or "I don't know". I code the answer as a binary variable with respondents who answered "Yes" coded as 1.
2. **Strike support.** A measure of whether the respondent supports the teachers' strike. Respondents were asked, "The teachers' syndicate announced a strike to pressure the government to increase teachers' wages by 50% of their basic wage. Do you...?" Respondents were given the option to answer "Strongly support the strike", "Somewhat support the strike", "Somewhat oppose the strike", or "Strongly oppose the strike". The variable is coded 1-4, with higher values indicating more supportive attitudes toward the strike.

Independent variables

To test Hypothesis 1, the independent variable of interest is relative deprivation among university graduates. This is operationalized as the interaction effect between two variables: educational attainment and income satisfaction. Educational attainment is measured with a dummy variable, where 1 indicates that the respondent is a university graduate. Income satisfaction is a three-point scale, whereby 1 represents the lowest level of income satisfaction and 3 represents the highest. This is coded from a question in which respondents are asked which of the following statements best describes their household income:

1. “Our household income does not cover the cost of our needs, we face difficulties in meeting those needs.”
2. “Our household income covers the cost of our needs, we are not able to save.”
3. “Our household income covers the cost of our needs comfortably, and we are able to save.”

This is closely modeled on a survey question used by the multi-wave regional Arab Barometer survey since 2010. In the latest wave of the Arab Barometer, fielded in 2018-2019, Jordanian respondents’ answers to this question exhibited a moderate correlation with their income quintile ($\rho = 0.41$), confirming that answers to this question reflect a respondent’s subjective evaluation of their economic status as well as, to a lesser extent, their objective economic status. This question is, therefore, well suited for measuring relative deprivation as it is conceptualized in the MENA political economy literature – that is, primarily as a product of subjective welfare expectations albeit rooted in objective economic status.

To test Hypotheses 2a and 2b, the independent variable of interest is public sector employment among university graduates. To measure this, I use the interaction effect between two variables: educational attainment and public-sector employment. As above, educational attainment is measured with a dummy variable where 1 in-

icates that the respondent is a university graduate. Public sector employment is measured using a dummy variable where public sector workers are coded as 1.

To test Hypothesis 3, the independent variable of interest is educational attainment. Two measures of educational attainment are used: 1) a dummy variable where 1 indicates that the respondent is a university graduate; 2) an eight-point scale corresponding to the respondent's highest level of educational attainment.¹⁷

To test Hypothesis 4, the independent variable of interest is the cost of the strike to an individual. Because the strike incurred greater costs on parents with children attending public sector schools than other individuals, I operationalize this with a dummy variable where 1 indicates that a respondent has one or more children enrolled in a public sector school. Moreover, the cost of the strike to parents increased as the strike wore on. Hence, I include an interaction term between the variable representing parents of public sector school students and a dummy variable where 1 indicates that an individual was a respondent in wave 2 of the survey.

Controls

To account for other factors associated with both a respondent's socioeconomic characteristics and the dependent variables, I include controls for age, age squared, and gender. Additionally, I expect that being employed will affect an individual's attitudes to the strike/ strikers' demands and thus include a dummy variable to control for this.

The income satisfaction variable used to measure relative deprivation (for testing Hypothesis 1) is also included as a proxy measure to control for income in other models. The inclusion of this control is motivated by the importance of education as an explanatory variable in Hypotheses 1-3 and the fact that educational attainment is correlated with income across a range of contexts. It is worth noting, however, that the correlation between educational attainment and income in the Jordanian

¹⁷The educational attainment categories are: illiterate, primary education, preparatory education, vocational training, secondary education, post-secondary two-year diploma, bachelor's degree, and master's degree or above.

context is low. The fifth wave of the nationally-representative Arab Barometer survey in Jordan, fielded eleven months prior to the teachers' strike, found that ρ for educational attainment and income quintile stood at 0.37. Indeed, research has shown that the MENA region has the lowest private returns to years of schooling of any world region ([Psacharopoulos and Patrinos, 2018](#)). Thus, confounding between these two variables is of lesser concern than would be the case in other contexts.

I also include governorate-level fixed effects to account for sub-national variation in the economic importance of public sector employment. The proportion of employed individuals working in the public sector varies considerably across Jordan, ranging from 22.5 percent in the governorate of Amman to 74.1 percent in the governorate of Ma'an ([Jordanian Department of Statistics, 2022](#)).

Finally, in examining attitudes toward anti-government mobilization, I control for whether a respondent supports the teachers' pay demands. This is the binary variable described above and allows us to disentangle support for the aims of this specific protest movement from an individual's underlying attitude toward the legitimacy of disruptive anti-government mobilization.

4.8 Results

Support for teacher pay demands

Before turning to the findings regarding determinants of support for anti-government mobilization, Table 4.1 presents results from logistic (logit) regressions examining the determinants of individuals' support for teachers' pay demands.

Across all five models, university education emerges as the most important determinant of support for teachers' pay demands. Model 1 begins with the coefficients for the independent variables, excluding the interaction terms. University education is associated with increased support for teachers' pay demands. With other variables held constant at their mean value, university education increases the predicted probability of supporting teachers' pay demands from 0.57 to 0.71 (see Figure 4.1). This

Table 4.1: Support for teacher pay demands

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|-----------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Child in government school | −0.065 (0.095) | −0.066 (0.095) | −0.066 (0.095) | −0.069 (0.095) | 0.052 (0.126) |
| University education | 0.614*** (0.126) | 0.461*** (0.158) | 1.265*** (0.319) | 0.508*** (0.139) | 0.612*** (0.126) |
| Educational attainment | | 0.052 (0.033) | | | |
| Income satisfaction | −0.012 (0.074) | −0.025 (0.074) | 0.061 (0.081) | −0.013 (0.074) | −0.012 (0.074) |
| Public sector | 0.341** (0.164) | 0.330** (0.164) | 0.338** (0.163) | 0.196 (0.184) | 0.334** (0.164) |
| Wave | | | | | 0.012 (0.121) |
| University education x income satisfaction | | | −0.423** (0.188) | | |
| University education x public sector | | | | 0.566* (0.331) | |
| Child in government school x wave | | | | | −0.235 (0.166) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses *p<0.1; **p<0.05; ***p<0.01

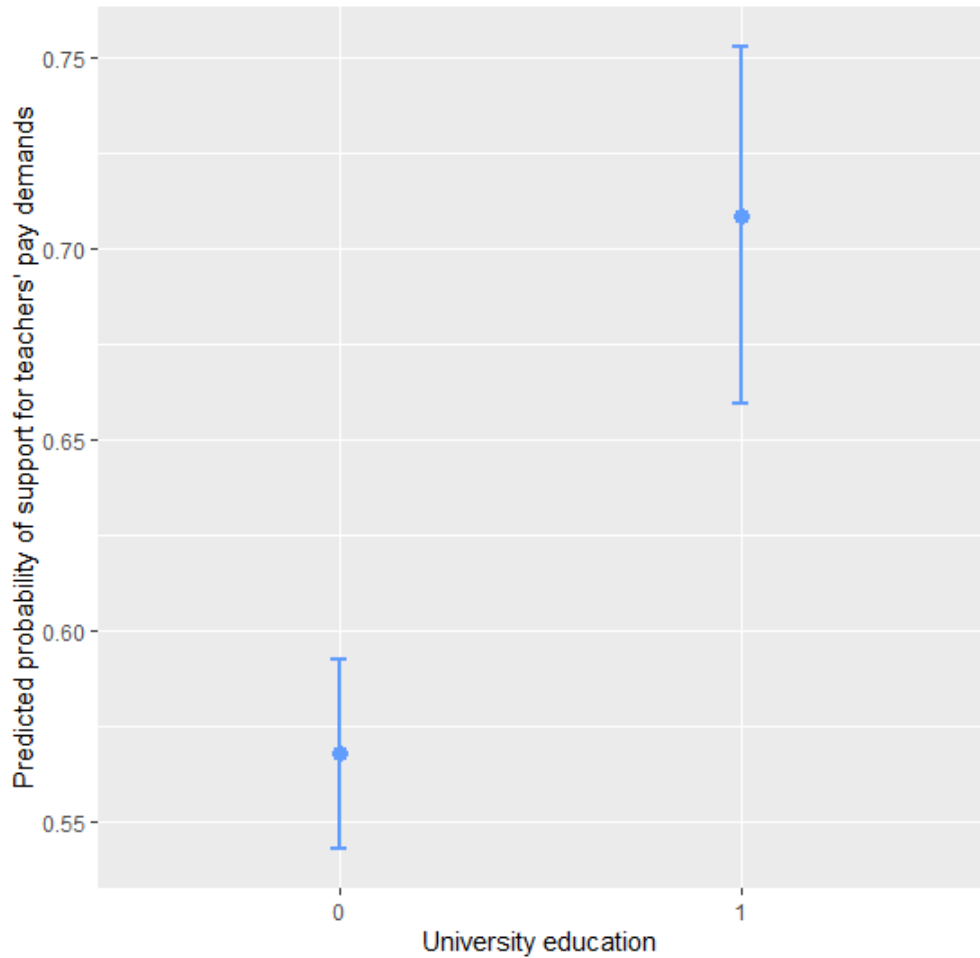
finding is driven by university-level education rather than educational attainment more broadly. Model 2 includes a variable measuring educational attainment on an eight-point scale, which is not statistically significant.

Model 3 introduces an interaction term between university education and income satisfaction. It reports that, among university graduates, support for the strikers' demands increases as income satisfaction declines. Importantly, however, the base effect for income satisfaction is not statistically significant in any of the five models.

Public sector employment is also found to be associated with increased support for teachers' pay demands. Based on Model 1 - with other variables held constant at their mean value - public sector employment increases the predicted probability of supporting teachers' pay demands from 0.56 to 0.64. Model 4 introduces an interaction term between university education and public sector employment. It reports that university-educated public sector workers are more likely to support

the strikers' demands. Once this is accounted for, the base effect of public sector employment loses statistical significance. Based on Model 4 - with other variables held constant at their mean value - being a university-educated public sector worker increases the predicted probability of supporting teachers' pay demands from 0.57 to 0.70.

Figure 4.1: Predicted probabilities of support for teachers' pay demands (Model 1)



Note: Error bars represent 95% confidence intervals

Model 5 introduces an interaction term between the survey wave and whether the respondent has a child enrolled in a public sector school, which is not statistically significant.

Support for anti-government mobilization

Table 4.2 presents results from Ordinary Least Squares (OLS) regressions examining the determinants of individuals' support for anti-government mobilization (i.e., individuals' support for the teachers' strike after controlling for their support for teachers' pay demands). Across all models, educational attainment consistently emerges as the primary determinant of support. These findings lend support to Hypothesis 3, which asserts that educational attainment is expected to be positively associated with support for anti-government mobilization. In contrast to the results presented in the previous section, this finding is not specific to university-level education (see Model 7).

Table 4.2: Support for anti-government mobilization

| | Model 6 | Model 7 | Model 8 | Model 9 | Model 10 |
|-----------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Child in government school | −0.037 (0.044) | −0.037 (0.044) | −0.038 (0.044) | −0.040 (0.044) | −0.052 (0.060) |
| University education | 0.505*** (0.053) | 0.292*** (0.070) | 0.644*** (0.132) | 0.412*** (0.059) | 0.504*** (0.053) |
| Educational attainment | | 0.073*** (0.016) | | | |
| Income satisfaction | 0.022 (0.034) | 0.003 (0.035) | 0.040 (0.039) | 0.021 (0.034) | 0.022 (0.034) |
| Public sector | 0.021 (0.078) | 0.008 (0.078) | 0.020 (0.078) | −0.120 (0.092) | 0.020 (0.078) |
| Wave | | | | | −0.051 (0.056) |
| University education x income satisfaction | | | −0.093 (0.080) | | |
| University education x public sector | | | | 0.446*** (0.127) | |
| Child in government school x wave | | | | | 0.030 (0.078) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses *p<0.1; **p<0.05; ***p<0.01

Model 8 introduces an interaction term between university education and income satisfaction, which is not statistically significant. This contradicts Hypothesis 1, which asserts that relatively deprived university graduates are expected to be more

supportive of anti-government mobilization.

Model 9 introduces an interaction term between university education and public sector employment. It reports that university-educated public sector employees are more likely to support anti-government mobilization, lending support to Hypothesis 2a. Notably, the base effect for public sector employment is not statistically significant in any of the five models.

Across all five models, having a child enrolled in a public sector school is not a statistically significant predictor of support for the teachers' strike. Model 10 introduces an interaction term between the survey wave and having a child enrolled in a public sector school, which is not statistically significant. This contradicts Hypothesis 4, which asserts that support for the teachers' strike is expected to be inversely related to the costs it imposes on an individual.

Robustness and alternative explanations

The models presented in Appendices A-C test alternative explanations and the robustness of the above described findings. One concern relates to the measurement of respondent support for teachers' pay demands. Asked whether they support the pay raise demanded by teachers, 6.6 percent of respondents answered "I don't know". In the analyses presented above, support for teachers' pay demands was coded as a binary variable, with "I don't know" responses coded as 0. Models 11-20 in [Appendix A](#) rerun the models presented in Tables 4.1 and 4.2 with this variable recoded as a scale in which the response "No" is coded as 1, "I don't know" is coded as 2, and "Yes" is coded as 3. The findings presented in Table 4.1 are robust to this alternative specification with one exception. Upon the inclusion of the interaction term between university education and public sector employment (Model 14) the public sector employment variable loses statistical significance, as it also does in the main model (Model 3). However, the interaction term narrowly in Model 14 misses conventional levels of statistical significance although its coefficient is in the expected direction. All findings related to the determinants of support for anti-government

mobilization are robust to this alternative specification (see Table 4.4).

Another concern relates to the possibility that the findings related to educational attainment are idiosyncratic to this particular strike because it affected the educational sector. It may be that highly educated respondents are more likely to support teacher strikes because these individuals place a higher value on teaching. To test this alternative explanation, I construct a variable to measure the value placed by respondents on teaching and rerun the models presented in Table 4.1 with the inclusion of this variable (see Appendix B). Survey respondents were given a scenario in which financial resources are available to improve the educational system and asked to select their top priority for increased investment from a list of expenditure categories.¹⁸ I code expenditure priorities related to teaching¹⁹ as 1, and other priorities as 0. The findings are robust to the inclusion of this variable.

Finally, it is worth noting that several members of the JTS leadership heading the syndicate at the time of the strike were believed to be affiliated with the Muslim Brotherhood, although only one publicly confirmed this (Delwany, 2020). Indeed, there existed a media discourse that the 2019 strike was an opportunistic attempt by the Muslim Brotherhood to further its own political aims. For example, an opinion piece published during the strike in one of Jordan's two state-controlled national newspapers stated that the syndicate had been "penetrated" by Islamist political parties, especially the Muslim Brotherhood, which sought to use it in order to pursue an "undeclared aim" of instigating mass protest and toppling the government in a "demeaning" manner (Salameh, 2019). Similarly, another opinion piece published during the strike on one of Jordan's most popular news websites suggested that some factions in the Muslim Brotherhood intended to use the strike to gain leverage over the government in negotiations related to forthcoming parliamentary elections and

¹⁸The options provided were: 1) Improving infrastructure, including buildings and facilities; 2) Training teachers; 3) Increasing teachers' wages and linking them to performance; 4) Developing an improved curriculum and teaching materials; 5) Providing students with transportation; 6) Other (specify).

¹⁹These are "training teachers" and "increasing teachers' wages and linking them to performance".

the disputed legal status of the Muslim Brotherhood’s largest charitable association (Al-Raddad, 2019). To test whether this discourse influenced the reported findings, I construct a control variable for whether a respondent believed that the strike was driven by extraneous political motivations and rerun the models presented in Table 4.1 with the inclusion of this variable (see Appendix C). Respondents were told that there are two views regarding why JTS announced a strike and to choose the one closest to their own opinion or, alternatively, “I don’t know”. The views given were as follows:

1. The syndicate declared a strike to obtain a 50% increase in teachers’ basic wages.
2. The syndicate escalated from demanding a wage increase to protesting and then to striking in order to further political aims unrelated to teachers’ interests.

Overall, 18.6 percent of Jordanians were inclined toward the explanation that the strike was driven by extraneous political motivations unrelated to teachers’ interests. I operationalize this attitude with a dummy variable in which those who selected the second statement are coded as 1. The findings are robust to the inclusion of this variable.

4.9 Discussion and conclusions

Although there exists a considerable academic literature on the erosion of the authoritarian social contract in MENA, there remains a dearth of systematic empirical investigation of the influential arguments put forward on this subject. This article aims to test these arguments with rich quantitative data from the case of Jordan. Although white-collar state employees in MENA have historically been considered a key constituent of the region’s authoritarian coalitions, the findings of this study support the argument that they have become antagonistic to the authoritarian social contract. As such, these findings contradict Rosenfeld’s (2020) argument regarding

the existence of state-employed “autocratic middle classes” in late-developing authoritarian settings characterized by high levels of state economic engagement.

The evidence presented here does not support the argument that relative deprivation among university-educated citizens has eroded the authoritarian social contract in MENA. Although relative deprivation among the university educated was found to be associated with support for teachers’ pay demands, it was not found to be associated with support for anti-government mobilization. This highlights the importance of distinguishing between dissatisfaction with socioeconomic conditions and policies (i.e. grievances) on the one hand, and attitudes toward the legitimacy of anti-government mobilization (i.e. the authoritarian social contract) on the other.

Importantly, I find that educational attainment consistently emerges as the primary determinant of support for anti-government mobilization. This finding is consistent with versions of modernization theory positing that the expansion of education plays a key role in strengthening democratic values in society ([Almond and Verba, 2015](#) [1963]; [Lipset, 1959](#)) and weakens individuals’ acceptance of traditional forms of authority ([Inglehart and Welzel, 2005](#)), suggesting that renewed attention to modernization perspectives may be valuable in advancing our understanding of the evolution of state-citizen social contracts in MENA.

In contrast to previous findings from scholarship on the effects of protest on public opinion, this study finds that attitudes to the strike and strikers’ demands proved remarkably stable over time, despite the prolonged and highly disruptive nature of this strike. This null finding highlights the critical question of why protests sharing similar characteristics can have substantially different effects on public opinion in different settings. Further exploration of this question is a promising avenue for future research. One possibility is that public attitudes toward strikes are less susceptible to change in cases with higher pre-existing levels of polarization regarding strikers’ demands.

The key limitation of the current study is the issue of external validity. Due to

the data limitations described in Section 4.2, this paper has focused on the single-country context of Jordan. Whether these findings travel to other countries in the MENA region is an open question requiring the collection of additional survey data.

4.10 Appendix A

Table 4.3: Support for teacher pay demands (OLS regression)

| | Model 11 | Model 12 | Model 13 | Model 14 | Model 15 |
|--------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Child in government school | −0.034 (0.042) | −0.034 (0.042) | −0.035 (0.042) | −0.035 (0.043) | 0.006 (0.055) |
| University education | 0.237*** (0.051) | 0.200*** (0.067) | 0.485*** (0.124) | 0.199*** (0.058) | 0.235*** (0.051) |
| Educational attainment | | 0.012 (0.015) | | | |
| Income satisfaction | 0.012 (0.032) | 0.009 (0.032) | 0.044 (0.036) | 0.011 (0.032) | 0.011 (0.032) |
| Public sector | 0.138* (0.071) | 0.135* (0.071) | 0.136* (0.071) | 0.081 (0.084) | 0.135* (0.071) |
| Wave | | | | | −0.019 (0.053) |
| University education x income satisfaction | | | −0.165** (0.077) | | |
| University education x public sector | | | | 0.180 (0.119) | |
| Child in government school x wave | | | | | −0.081 (0.074) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses

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

Table 4.4: Support for anti-government mobilization (OLS regression)

| | Model 16 | Model 17 | Model 18 | Model 19 | Model 20 |
|--------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Child in government school | −0.036 (0.044) | −0.036 (0.044) | −0.036 (0.044) | −0.039 (0.044) | −0.045 (0.060) |
| University education | 0.517*** (0.054) | 0.287*** (0.070) | 0.668*** (0.133) | 0.423*** (0.060) | 0.516*** (0.054) |
| Educational attainment | | 0.079*** (0.016) | | | |
| Income satisfaction | 0.018 (0.035) | −0.001 (0.035) | 0.039 (0.039) | 0.018 (0.035) | 0.019 (0.035) |
| Public sector | 0.024 (0.078) | 0.009 (0.078) | 0.023 (0.078) | −0.119 (0.092) | 0.023 (0.078) |
| Wave | | | | | −0.038 (0.056) |
| University education x income satisfaction | | | −0.101 (0.081) | | |
| University education x public sector | | | | 0.452*** (0.127) | |
| Child in government school x wave | | | | | 0.018 (0.078) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses

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

4.11 Appendix B

Table 4.5: Support for anti-government mobilization (OLS regression)

| | Model 21 | Model 22 | Model 23 | Model 24 | Model 25 |
|--------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Child in government school | −0.032 (0.044) | −0.032 (0.044) | −0.032 (0.044) | −0.035 (0.044) | −0.046 (0.059) |
| University education | 0.468*** (0.053) | 0.273*** (0.069) | 0.596*** (0.131) | 0.384*** (0.059) | 0.468*** (0.053) |
| Educational attainment | | 0.068*** (0.016) | | | |
| Income satisfaction | 0.017 (0.034) | 0.0003 (0.034) | 0.034 (0.038) | 0.016 (0.034) | 0.017 (0.034) |
| Public sector | 0.017 (0.078) | 0.005 (0.077) | 0.016 (0.078) | −0.113 (0.091) | 0.017 (0.078) |
| Values teaching | 0.299*** (0.042) | 0.290*** (0.042) | 0.299*** (0.042) | 0.295*** (0.042) | 0.299*** (0.042) |
| Wave | | | | | −0.045 (0.055) |
| University education x income satisfaction | | | −0.085 (0.079) | | |
| University education x public sector | | | | 0.411*** (0.127) | |
| Child in government school x wave | | | | | 0.028 (0.077) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses

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

4.12 Appendix C

Table 4.6: Support for anti-government mobilization (OLS regression)

| | Model 26 | Model 27 | Model 28 | Model 29 | Model 30 |
|--------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Child in government school | −0.035 (0.044) | −0.035 (0.043) | −0.035 (0.044) | −0.038 (0.044) | −0.050 (0.059) |
| University education | 0.482*** (0.052) | 0.268*** (0.069) | 0.638*** (0.130) | 0.404*** (0.058) | 0.481*** (0.052) |
| Educational attainment | | 0.074*** (0.016) | | | |
| Income satisfaction | 0.028 (0.034) | 0.009 (0.034) | 0.048 (0.038) | 0.027 (0.034) | 0.028 (0.034) |
| Public sector | 0.014 (0.077) | 0.001 (0.077) | 0.013 (0.077) | −0.106 (0.091) | 0.014 (0.077) |
| Extraneous political motivations | −0.378*** (0.046) | −0.379*** (0.047) | −0.379*** (0.046) | −0.369*** (0.047) | −0.377*** (0.047) |
| Wave | | | | | −0.041 (0.055) |
| University education x income satisfaction | | | −0.103 (0.079) | | |
| University education x public sector | | | | 0.380*** (0.127) | |
| Child in government school x wave | | | | | 0.029 (0.077) |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Regional fixed effects | ✓ | ✓ | ✓ | ✓ | ✓ |

Robust standard errors in parentheses

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

5 Concluding Remarks

In these concluding remarks, I summarise the key findings of the research presented in this thesis and outline potential avenues for further research.

5.1 Summary of findings

The headline finding of the first paper is that that exposure to local protest had a substantial negative effect on Egyptians' attitudes to democracy during the post-Mubarak transition of 2011. Disaggregation of our protest measure shows that this effect is principally driven by protests involving the disruption of public space. We surmise that sensitivity to the negative externalities of mass protest is likely heightened in a recently authoritarian context where protest was previously small in scale and spatially contained. In such settings, where citizens are forming an assessment of how democracy will perform in their country, high levels of localized protest may lead some to associate democracy with the knock-on effects of sustained street-level mobilization, such as the disruption of economic activity and public service provision. Building on a recent body of scholarship examining how protest influences political attitudes (for example, [Wallace et al., 2014](#), [Branton et al., 2015](#), [Tertytchnaya and Lankina, 2020](#)), this research demonstrates one of the critical ways that mass mobilization can shape public opinion in transitional contexts.

In the second paper, I investigate the effectiveness of low-cost diversions: an established regime tactic for managing public opinion in MENA during periods when the threat of popular mobilization is high ([Arababa'h and Blaydes, 2020](#); [Arababa'h, 2021](#)). The diversionary policy under study is the Jordanian regime's 2018 withdrawal from an annex to its peace treaty with Israel, which involved the long-term lease of the uninhabited Baqura and Ghamr border areas to the Israeli state. The serendipitous occurrence of this event during the fielding of a nationally representative survey of political attitudes provides a valuable opportunity to study rallying in authoritarian contexts where time-series public opinion data tends to be sparse.

I find that low-cost diversions can produce modest rallying effects among those with lower levels of educational attainment. The headline finding that the rallying effect decreases then disappears as educational attainment increases is highly robust. Because these findings emerge from a “most likely” case, they are suggestive of the ceiling of possible low-cost rallying effects. The empirical findings also caution against generalizations about the media dynamics of rallying under authoritarianism, as context-specific patterns of media consumption may produce substantively different effects. Contrary to findings from recent research on rallying effects in Russia ([Hale, 2018](#); [2022](#)), respondents’ preferred news source was not found to moderate the Baqura-Ghamr rally.

The third paper investigates Jordanian citizens’ attitudes toward protest in order to test the implications of influential arguments from the MENA political economy literature regarding the nature of the authoritarian social contract between citizens and the state. It also contributes to an emerging literature on support for labor strikes which has hitherto focused on advanced industrialized contexts. Educational attainment consistently emerges as the primary determinant of support for anti-government mobilization, in line with the expectations of some versions of modernization theory. The findings also provide support for the argument that dissatisfaction among white-collar public sector employees is associated with the erosion of the authoritarian social contract in MENA. In contrast, the findings do not support the influential argument that the erosion of this contract is related to relative deprivation among the university educated. Finally, contrary to previous findings from scholarship on the effects of protest on public opinion, attitudes toward the strike are found to be remarkably stable over time.

5.2 Avenues for future research

A cross-cutting theme of the findings presented in this thesis is the powerful role of educational attainment in moderating political attitudes in MENA. Investigation of the causal mechanisms underlying this relationship is a promising avenue for future

research. The standard model explaining the relationship between educational attainment and political outcomes posits that education imparts cognitive skills which are consequential for political outcomes, such as increased literacy, knowledge of the political system and an increased ability to access and interpret information about politics (see [Willeck and Mendelberg, 2022](#), for a review). However, this model has been challenged by explanations that focus on the various socialization effects of education, in addition to arguments that education is merely a component of socioeconomic status (SES) and that the relationship between education and political outcomes is driven by SES more broadly (see [Willeck and Mendelberg, 2022](#), for a review).²⁰

Testing these posited causal mechanisms presents two key challenges in the context of studying the relationship between educational attainment and political attitudes in MENA. First, existing surveys on political attitudes in the region do not collect information on either the cognitive skills discussed above or several relevant aspects of socioeconomic status (most notably, wealth, parental occupational status and the head of household's occupational status). Second, it has generally proven difficult to identify causal inference strategies which can adjudicate between these three explanations ([Willeck and Mendelberg, 2022](#)).

More broadly, a number of recent developments are promising for future research on the relationship between public opinion and mass politics in the MENA region. For one, the increased availability of accessible, high-quality datasets on protest events in Algeria, Egypt, Jordan and Sudan will significantly lower barriers to conducting research in this area moving forward. Similarly, the latest wave of the Arab Barometer (fielded in 2021-2022) has, for the first time, collected fine-grained data on the specific media outlets preferred by survey respondents. This will allow for nuanced investigation of how media consumption patterns moderate the relationship between political attitudes and mass politics in the region.

²⁰It is worth noting that the empirical evidence for the latter argument is mixed and relates specifically to the relationship between education and political participation in the United States ([Willeck and Mendelberg, 2022](#)).

However, a number of key data challenges remain for scholars of political attitudes in the Arabic-speaking MENA. These include the absence of detailed respondent georeferencing in surveys which measure political attitudes, the lack of panel survey data on political attitudes and the uneven geographical coverage of such surveys. In particular, publicly accessible data on political attitudes in the countries of the Gulf Cooperation Council continues to be extremely limited.

6 Bibliography

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