

Small Tribes, Big Gains:

The Strategic Uses of Gender Quotas in the Middle East

Forthcoming, *Comparative Politics*

Sarah Sunn Bush and Eleanor X. Gao

Abstract:

Why do some political actors nominate women more than others in the Muslim world? This article argues that certain social groups have an instrumental demand for female candidates because they believe such candidates will enhance their electoral chances in the wake of gender quotas' adoption. Looking at Jordan, it hypothesizes that small tribes can make big gains by nominating women due to the design of the country's reserved seat quota. This argument complements existing perspectives on women's (under-)representation in the Muslim world, which emphasize the role of features of the culture, economy, or religion. The analysis of original data on Jordan's local elections and tribes supports the argument. The article's findings have implications for our understanding of women's representation, tribal politics, and authoritarian elections.

In 2007, Jordan reserved 20 percent of the seats on its municipal councils for women. Although the quota was uniformly applied to the councils, political actors varied greatly in the extent to which they sought to take advantage of it. In Umm El Quttein, a municipality in the rural Mafrq governorate in northern Jordan, the Masa'id tribe offered only one candidate for the 2007 election: a woman. In contrast, the Athamat and Shirfat tribes nominated only men—four candidates each—even though two seats were reserved for women. Yet the Masa'id tribe did not consistently advance women. In nearby municipalities in Mafrq, such as Salhieh and Safawi, the Masa'id tribe nominated only men. What explains those variations? When countries adopt gender quotas, why do some political actors nominate more women than others?

We argue that certain elites nominate women candidates to enhance their electoral chances after quota adoption. Once in place, some quotas create powerful incentives for political actors that are not particularly supportive of women's rights to nominate women if they would otherwise struggle to win seats. We develop and apply this argument using the case of Jordan. We argue that small tribes there (i.e., tribes with few members in their electoral districts), which might otherwise win few seats, nominate female candidates to increase their representation.¹ This is a valuable insight since, according to a recent review of the literature on gender quotas, "there has been little research on exactly what kinds of women benefit from quotas."² We support our argument using original data on Jordan's elections, encompassing more than 2,300 candidates, 700 tribes, and 90 municipal councils, as well as qualitative interviews.

Our argument complements existing perspectives on Muslim women's representation, which highlight the significance of economic structure,³ religion,⁴ and individual biases.⁵ Such arguments, which show how stereotypes about who and what makes for a "good leader" prevent women from being chosen for leadership roles,⁶ emphasize the ideological—rather than

strategic—reasons why political actors in the Muslim world (do not) nominate women. Our argument therefore offers a new approach within the growing body of scholarship on gender and politics in the region. Yet our argument builds on a substantial literature from other parts of the world that demonstrates how elites strategically use gender and gender quotas for their own ends, both domestically and internationally.⁷

Our study also contributes to policy debates about empowering women in the Muslim world. The dearth of women in elected office there has captured international attention,⁸ especially since women in the region are relatively literate and their fertility rates are dropping.⁹ Our findings suggest that the consequences of international efforts to empower Muslim women will be multivalent, as the Jordanian quota enhances the descriptive representation not just of women but also of small tribes, which could be considered political minorities. Whereas quotas may undermine the influence of tribal and other traditional leaders in ethnically homogenous societies by replacing them with women,¹⁰ quotas may enhance the influence of some traditional groups at the expense of others in more diverse societies.

Finally, our findings have implications for comparative politics beyond the study of gender and gender quotas. First, our approach adds to the growing literature that examines variations within tribes and finds that traditional leaders are important political actors in the developing world.¹¹ Whereas recent research has emphasized how tribes subordinate women due to their commitment to a particular notion of “kinship morality,”¹² our research shows how kinship groups are willing to strategically champion women in politics to gain representation. Thus, the article contributes to our growing understanding of tribes as complex political actors motivated both by ideology and incentives. Second, our article further shows how autocrats use seemingly liberal policies and institutions to survive. Scholars have long recognized the

clientelistic functions of authoritarian elections, especially in the Muslim world.¹³ Yet in a review essay on “elections under authoritarianism,” Gandhi and Lust-Okar noted “the effect of elections on social environments needs to be explored” and cited the links between elections and gender relations as a lacuna.¹⁴ Our findings about Jordan, an electoral autocracy, show how quotas can help autocrats mimic the appearance of liberal democracy while not making fundamental changes and even over-representing friendly political forces.

Muslim Women’s Representation: Existing Theory

Researchers studying women’s under-representation in the Muslim world emphasize how the interplay of socio-economic conditions, culture, and religion discourages women’s aspirations for political office. Perhaps most prominently in this vein, Inglehart and Norris have offered a revised version of modernization theory.¹⁵ They argue that economic development promotes societal modernization, including secularization and urbanization. Furthermore, they argue that—as women’s fertility rates drop and labor-force participation rates increase—societal modernization encourages norms of gender equality and increased political representation for women. In their framework, support for women’s participation in political life is also conditional on religious and institutional heritage; in particular, Islam is thought to impede women’s representation because its religious leaders are perceived to have embraced traditional views regarding women’s rights. A related argument comes from Ross, who also emphasizes the importance of low female labor force participation in the region but attributes it to oil-based economies rather than Islam.¹⁶ Likewise, Benstead et al. agree about the significance of patriarchal norms but suggest yet another mechanism: role congruity theory.¹⁷ For all of these

researchers, Muslim women's under-representation reflects a shortage in the "supply" of female candidates as well as in the "demand" for female candidates by elites and publics.¹⁸

Researchers who have studied women's representation in other regions also emphasize political and institutional factors. Indeed, the widespread adoption of gender quotas may have broken the link between economic structure and women's representation.¹⁹ Around the world, elites evaluate and select aspirant candidates, including women, according to how likely they are to win office and govern effectively. Certain elites, especially leftists, have more reliably found women suitable for political office than others, usually for ideological reasons.²⁰ Yet contagion theory suggests that parties may nominate women simply to compete with other parties, even if they are not left-leaning and especially in multi-member proportional representation systems.²¹

Although to the best of our knowledge there is little evidence of elites in the Muslim world selecting female candidates because of their partisan ideologies, some research does suggest that intra-party dynamics could shape women's political participation. Such was the case in Jordan and Yemen in the 1990s, for example, when women attained leadership positions in two conservative Islamist parties, even though those parties' general positions on women's participation remained unchanged. In those cases, intra-party disagreements on unrelated issues created political openings that women seized, leading them successfully to win seats on the parties' decision-making bodies.²² Relatedly, in Morocco in the 2000s, parties stacked their lists with women to access patronage after the passage of a quota for women in parliament.²³ There, a 10 percent quota prompted male elites to nominate their poor female relatives as a means of controlling elected women and increasing their power.

Such findings suggest that popular or elite support for women's representation, per se, could matter less than other incentives when it comes to nominating women as candidates in the

Muslim world. But under what conditions are political elites' incentives apt to be aligned with women running for political office? Answering that question in Jordan requires an appreciation of the local political context. After all, the consequences of quotas depend on the nature of the political system in question and the electoral rules.²⁴ In countries where quotas are adopted with the intention to protect the status quo while providing the veneer of social progress,²⁵ quotas will not necessarily create incentives for political elites to nominate candidates who are likely to enhance women's substantive representation.

The Jordanian Context

Jordan is a monarchy that holds elections for a national parliament and municipal councils. Both bodies serve mainly as mechanisms for distributing state resources.²⁶ Once elected, officials distribute patronage, including jobs, cars, and business licenses, to their supporters. The clientelistic function of elections in Jordan is not unique, either within or outside of the Muslim world.²⁷

Beyond distributing patronage, the regime uses multiple strategies to ensure that elections reinforce its rule. Although political parties in Jordan exist, electoral laws weaken them.²⁸ To take one example, consider Jordan's single non-transferable vote (SNTV) electoral system, in which each person casts one vote in his or her multi-member district. This system encourages people to vote for tribal candidates, who they believe can help them access patronage, rather than for partisan candidates. When electoral manipulation is not sufficient to engineer favorable outcomes, the Jordanian regime has influenced election outcomes by committing fraud and using other extralegal tactics.²⁹ Due to the challenging context, the main political party, the Islamic Action Front, typically boycotts elections, including the elections we examine in this article.

Instead, tribes perform many of the functions typically ascribed to parties, including nominating candidates. Some tribes select nominees through a deliberative process, which may entail tribal elders choosing candidates or a primary. In other cases, members self-nominate. No matter the nomination method, most political candidates report that encouragement from family members, friends, and tribes prompted them to run.³⁰ As is the case with political parties elsewhere,³¹ tribes in Jordan serve as the essential gatekeepers for potential female politicians.

Both Jordan's parliament and its municipal councils have gender quotas. Currently, the 150-seat parliament has a 10 percent quota and the councils have a 30 percent quota; both have grown over time. At the time data were gathered for this article, the councils had a 20 percent quota, which reserved seats for 203 female councilors across 93 councils. The number of total seats per council was roughly distributed according to population and ranged from six in rural areas to twenty-nine in Irbid, an urban municipality. The number of quota seats per council accordingly ranged from two to six. The quota seats were allocated to women who did not win seats competitively but received the largest percentage of votes in their districts.

International pressure encouraged the adoption of Jordan's municipal quota in 2007. Aid initiatives, such as the United States' Millennium Challenge Account, were conditional on Jordan improving women's inclusion. Consequently, the regime introduced the quota without significant domestic backing.³² As David and Nanes write, "on behalf of the quota in the municipal councils, there were only limited and disjointed efforts from the women's movement and absolutely no lobbying by female members of parliament... Indeed, women's organizations have displayed marked apathy toward municipal governance in the past."³³ In fact, when the government proposed the quota, it was accused of "succumbing to external pressures."³⁴ That

Jordan enacted the quota with a view towards the international community makes it similar to many other developing countries.³⁵

Beyond its typicality in terms of the process of quota adoption, Jordan is an appealing case to study because it is an “on-the-line” country globally in the sense that cross-national statistical models do a good job predicting the proportion of women in its national legislature.³⁶ Typical cases are generally appropriate ones for in-depth study of causal mechanisms.³⁷ Although our empirical tests are necessarily specific to Jordan, the core insights of the argument we develop below about strategic candidate nomination practices thus can be applied more broadly to countries in the Muslim world with quotas, a point to which we return below.

The Argument: Small Tribes, Big Gains

In Jordan, tribes have generally preferred to nominate male candidates. First, and as they do elsewhere,³⁸ tribes in Jordan subscribe to patriarchal belief systems.³⁹ Second, because tribes in Jordan typically seek representation to access patronage, female aspirants often face a difficult road as they have fewer patron–client ties.⁴⁰

Despite their patriarchal tendencies, Jordanian tribes have had much to gain from nominating female candidates after quotas were adopted. The quotas award seats to the women who win the most votes in their district but who do not win competitively. Although the quotas represent a “floor” rather than a “ceiling,” women historically rarely won without them; of the 226 women who were elected to municipal councils in 2007, for example, only twenty-three won competitively. Yet the presence of the quota has meant that many female candidates are still successful—in fact, 71 percent of female candidates were elected in 2007.

Given how the quotas are designed, small tribes stand to benefit from nominating relatively more female candidates. We define *small tribes* as tribes with few members in their district. As such, a tribe can thus be considered small in one location and large in another location. Moreover, the absolute size of the tribe nationally is not necessarily correlated with its relative size locally. For example, some of the largest tribes in Jordan as a whole, such as Beni Hassan, are small tribes in particular areas.

Without the quota, small tribes generally have a slim chance of having their male candidates win since they cannot turn out enough voters to beat candidates from larger tribes. Consequently, small tribes sometimes do not participate in elections. Thanks to the quota, however, female candidates can succeed even with the support of relatively few voters. This is because the reserved seats are awarded to the women with the most votes who did not win competitively; recall that there is no minimum threshold of votes that a candidate must secure to win according to the law. According to one study on the 2007 municipal election, “Of the 203 women who won through the quota, some won less than 1 percent of the votes of their districts (in some cases, not winning more than 20 votes) and dozens of others won less than 5 percent.”⁴¹

Since women need fewer votes than men to win, we hypothesize that small tribes are likely to nominate relatively more women than other tribes—not because they are more committed to women’s representation, *per se*, but because doing so promotes their electoral chances. As a consequence, many feminists who once advocated for quotas in Jordan in the hopes of improving women’s substantive representation have since opposed quotas because they view them as supporting the election of anti-feminist women from small tribes.⁴² In an interview, one such activist put it this way: “I believe that it is very important to empower women, but the quota is not bringing about a new politics. Small tribes have hijacked the quota.”⁴³ In fact, one

former municipal councilor told us that she opposed the quota: “The small tribes nominate women because they feel like they can control them. Then, when the women councilors try to talk, the men councilors make fun, saying, ‘Ha, let the quota have her chance to talk.’”⁴⁴

Large tribes may also wish to take advantage of quotas, however, we hypothesize that they are more reluctant to nominate relatively many women because they do not wish to undermine their male nominees by provoking coordination dilemmas. Recall that in SNTV systems, voters choose only one candidate, although multiple candidates win seats in each district. Under this system, seats are distributed to the candidates—not the political parties—with the most votes. In other words, it is possible for a party to garner the most votes in an electoral district but to win few—or even no—seats. A suboptimal outcome for a large party could be produced, for example, in a five-seat district if the leading party could capture 50 percent of the vote but divided its voters inefficiently (e.g., 40 percent of votes went to one candidate, and 5 percent each to the two other candidates) or nominated too many candidates.

Of course, large tribes that consistently win multiple seats in a given district could theoretically nominate women after quota adoption without acute worries about vote splitting. Yet in such a case, large tribes would have significant incentives to re-nominate incumbent men or other male candidates rather than switching to female candidates. First, incumbent politicians have better access to patronage resources.⁴⁵ Second, men have better access to patronage than women,⁴⁶ making them more desirable candidates for tribes if they are assured to win.

Our argument thus rests on the idea that elections in Jordan present coordination challenges to both political elites and voters. On the one hand, tribes—acting like parties—must estimate how many seats they are likely to win and nominate an appropriate number of candidates. On the other hand, voters must decide which candidate from their tribe to vote for if

there are multiple candidates. Either calculation can go awry. Political parties or tribes can nominate too many candidates and split their voters in ways that reduce their number of seats. They can also under-nominate candidates and waste votes on fewer candidates than what they might have been able to support.

Small and large parties respond differently to these coordination problems. Whereas a small party that might hope to gain one seat in an election will likely proceed by nominating a candidate, a large party that might gain multiple seats is more likely to under-nominate out of fear of creating a vote division problem in which some candidates get more than enough votes to win and other candidates do not. As Cox noted in a study of SNTV in East Asia, “assuming that parties are reasonably accurate at estimating their total support, a small party would presumably rarely under-nominate. Whenever it had a reasonable chance at a seat, it would go for it. In contrast, a large party with two incumbents in a district in which it had a chance at three might find it difficult to convince its incumbents to take the risk of diluting the party vote too far.”⁴⁷ Consistent with that logic, we find that a significant majority of small tribes in Jordan (79 percent) nominate only one candidate in municipal elections.

That logic suggests that small tribes in Jordan are more likely than large tribes to take advantage of the country’s quota and to nominate relatively more women. Strategic calculations will dissuade large tribes in Jordan from nominating many women in the same way that they have dissuaded political parties from nominating too many candidates elsewhere. Large tribes do not want to risk splitting voters by over-nominating candidates in ways that may decrease their representation. In contrast, small tribes have fewer such worries and will seek to take advantage of the quota by nominating relatively more women.

Returning to the aforementioned municipalities in Mafrq of Umm El Quttein, Salhieh, and Safawi, we can see that this argument explains the puzzling variations in the relative number of female candidates across tribes and municipalities. Although all three municipalities are rural and have relatively homogeneous populations, the Masa'id tribe nominated only a woman in Umm El Quttein and only men in Salhieh or Safawi. The key difference lies in the relative size of the Masa'id tribe. Larger tribes in Umm El Quttein, such as the Athamat and Shirfat tribes, nominated many men and no women. In contrast, Masa'id has few members there, whereas the tribe is native to Salhieh and Safawi. In Umm El Quttein, the Masa'id tribe gauged that it probably did not have enough votes to win a council seat outright and nominated a female candidate. The Masa'ids did that despite being a tribe of Bedouin origins, which, as we explain later, makes them more likely to hold patriarchal views. In Salhieh and Safawi, the Masa'id tribe was larger and felt secure enough in its voters that it nominated men.

Anecdotes support that interpretation. According to one study, the leaders of large tribes disapprove of female members deciding to run for municipal council without tribal support, believing that "running on the quota was only suitable for small and/or weak tribes."⁴⁸ Recalling the experience of a female candidate who ran alongside her male relatives despite not being nominated by her tribe, a staff member at a civic organization related, "Everyone tried to deter her [from running]...because you are going to hinder the success of your cousin. Even her uncles didn't support her. None of the candidates [from her tribe] succeeded... She won 923 votes but she didn't obtain the [number needed for a] quota seat...even now there are social problems with her husband's family...They...blame her for being the reason for failure."⁴⁹ Even female elected officials, such as Firdaws Al Khaldi, who infamously won her council seat with no votes, have made public statements that highlight the existence of elite coordination problems and tribes'

lack of support for female candidates. Speaking to the Jordanian newspaper *Al Dustour* about why she did not vote for herself, Al Khaldi said, “I was committed to the tribe’s rallying around one candidate, who unfortunately did not win a seat in spite of his great service to the area.”⁵⁰

Summing up, we argue that small tribes will nominate relatively more women because they find it difficult to gain representation otherwise and are less concerned about vote-splitting. We test this argument with new data on Jordanian elections. Though our tests are necessarily unique to Jordan, our core theoretical insight should apply to other cases in the Muslim world (and beyond): When quotas do not require parties to nominate female candidates and multiple candidacies harm parties’ electoral chances, then small parties will be more likely to nominate women and use quotas to their advantage. Indeed, elites associated with such parties have a genuine interest in the success of their women candidates, regardless of their religion, religiosity, or ideological support for gender equality. An example of another country where our argument could be tested is Afghanistan, which also has an SNTV electoral system and is a case of considerable interest to both international organizations and political scientists.⁵¹ Our argument suggests an explanation for the finding that the quota there has had limited success there in terms of advancing women’s substantive representation:⁵² Quotas can encourage actors who are unconvinced of the virtues of women in political life to nominate women out of a desire to win.

Data and Methods

Testing our argument requires new data on elections, tribes, and municipalities in Jordan. Due to space limitations, we confine the tests of our argument to the quantitative analyses described below. These analyses are, however, informed by qualitative interviews, some of which are cited above and all of which are described in the supplementary information.⁵³

Unit of Analysis

Our unit of analysis is the tribe–municipality; in other words, we examine the candidate nomination practices of particular tribes in particular municipalities, such as the Masa'id tribe in Umm El Quttein or the Athamat tribe in Umm El Quttein. Tribes' strategic calculations, ethno-religious traits, and socioeconomic environments could all affect their nomination patterns. As discussed above, we focus on tribes because they are the primary political actors in Jordan.

In this article, we focus on variations in the nomination of candidates for municipal councils, although our argument could equally apply to candidates for parliament. These councils are responsible for parks, public buildings, sanitation, streets, and other local services. Our focus on local elections is mostly a practical matter: An international donor working in Jordan assembled and granted us access to unique data on Jordan's municipalities. Similar data on parliamentary districts do not exist and cannot be imputed from our information about the municipalities. Without such data, it is impossible to test our argument against plausible alternative explanations. That being said, our local focus arguably provides a hard test of our strategic theory since tribes in Jordan should be at least as—if not better—informed and coordinated in their behavior around national elections. After all, national elections involve fewer seats and higher stakes in terms of prestige and access to the state and patronage.⁵⁴

We gathered election and municipality data from the Ministry of Municipal Affairs, the Department of Statistics, and the Local Governance Development Program, a program funded by the U.S. government. Unfortunately, this program only assembled data on the 2007 election, so it is not possible to compare the nomination of women before and after introduction of the quota. Still, this dataset is very rich as it identifies over 2,300 candidates for the 2007 municipal

elections. As described in the supplementary information, we classified the candidates by tribe using reference books and local knowledge. In total, 761 tribes nominated candidates across the 93 municipalities under the jurisdiction of the Ministry of Municipal Affairs. We do not classify candidates by political party because only a minuscule number of local candidates are primarily affiliated with parties according to the interviews described in the supplementary information.

Below, we describe our dependent, independent, and control variables. Summary statistics are provided in the supplementary information. When examining the data, note that this article seeks to explain variations in the relative number of women that tribes nominate. Thus, we exclude tribes that nominate no candidates from the analysis.⁵⁵ The most common tribes that do not nominate candidates are Palestinian. According to survey data, Jordanians of Palestinian origin are no more or less likely to support gender equality than other Jordanians.⁵⁶ Consequently, their exclusion should not bias our results.

Dependent Variable

As we argued earlier, we expect small tribes to offer relatively more female candidates than other tribes. Our main dependent variable (*gender difference*) is the difference between the number of female and male candidates offered by a tribe in a municipality. It ranges from 2 (two more female than male candidates) to -19 (nineteen fewer female than male candidates).⁵⁷ In a robustness check, we use an alternative dependent variable: the proportion of female candidates nominated by a tribe in a municipality (*female proportion*).

Explanatory Variable: Small Tribe

We expect small tribes to use the quota to gain representation. Unfortunately, it is uncertain whether official data on tribe size exist, despite our multiple attempts to locate and obtain such information. Data on tribe size are politically sensitive, as they reveal information about the sizes of the Palestinian population and tribes supportive of the monarchy.

Our primary measure of tribe size thus relies upon an expert survey. To determine the size of tribes, we contacted at least one Jordanian in each municipality ($N = 93$) that was knowledgeable about the subject of local tribes.⁵⁸ Information about the sample and our survey questionnaire is provided in the supplementary information. All respondents were given the names of the tribes in their municipality that offered candidates in the 2007 municipal elections and asked to comment on whether the membership size of the tribe within the municipality was “small,” “medium,” “large,” or unknown. All tribes assessed as “small” were coded as such (*small tribes*). Based on that process, we were able to code 97 percent of the tribes in our dataset, 80 percent of which were considered small. Lending credence to our argument, small tribes on average nominated only around 0.9 more male than female candidates, in contrast to other tribes, which nominated around 3.5 more male than female candidates on average.

We also coded tribe size using searches of Jordanian websites. For example, for the tribe of Masa'id in the municipality of Umm El Quttein, we entered the following search terms into Google (translated into Arabic): “Masa'id + Umm El Quttein site:.jo”. Tribe–municipalities ranged from zero Google hits to over 4 million, with an average of 1.9 million. In the analyses below, we classify tribes as small in a municipality if they received fewer than 10,000 Google hits, however, our results are robust to other cut-offs (e.g., 5,000 or 50,000 Google hits) as well as a continuous indicator (i.e., the natural log of the total number of Google hits).

Control Variables

Socioeconomic and Cultural Variables Previous scholars have argued that Islam impedes women's political participation. Although some have argued that it is a country's religious heritage that matters, others posit that individuals' religious commitments shape their support for women's representation.⁵⁹ To test the argument that Muslim individuals are less supportive of women leaders, we thus include a binary indicator of whether a tribe is Christian (*Christian tribe*). 3 percent of the tribes in our dataset are Christian; the rest are Muslim.

Relatedly, tribes of Bedouin origin may offer relatively fewer female candidates because they oppose gender equality. First, women in nomadic societies, of which Bedouins are a subset, were historically controlled to promote tribal cohesion.⁶⁰ Second, Bedouins tend to be relatively poor and lack education,⁶¹ and Inglehart and Norris identify wealth and education as factors that promote acceptance of women's participation in political life.⁶² We code a tribe as *Bedouin* if the Jordanian government designated it as such during the previous parliamentary elections. 16 percent of tribes in our dataset are Bedouin.

Finally, we include measures of the percentage of Jordanians within the municipality who live at the poverty level (*poverty rate*) as well as population density (*density*). We expect wealthier municipalities to have higher education levels, which could lead to greater popular support for women's political participation.⁶³ Similarly, urban areas may be associated with more liberal values regarding gender equality. Population density is calculated by dividing the municipality's total population in 2004 by the municipality's area.

Electoral Districts Some municipalities are divided into multiple electoral districts. That fragmentation may either encourage or discourage tribes from running female candidates,

depending on their membership levels in each of these districts. We therefore control for the number of electoral districts in the municipality (*electoral districts*).

Moreover, although the number of seats on a council is related to population, the number of seats per capita varies across districts. When districts have more seats, more tribes may offer female candidates or each tribe may nominate relatively more female candidates. We thus calculate the average of the number of seats per district within a municipality (*seats per district*).

Tribal Cohesion Some tribes are fractionalized and candidates run regardless of whether the tribe endorses them. Power struggles within the tribe, a poor selection process, and internal factions can all undermine tribal cohesion. Since more cohesive tribes tend to nominate fewer candidates, all else being equal, we include cohesion in our analyses.⁶⁴ We measure *tribal cohesion* by calculating the ratio of the number of seats that a tribe could have won to the number of candidates it ran. More details about this measure are in the supplementary information.

Estimation

We mainly use hierarchical linear modeling to evaluate our argument as both tribe- and municipal-level factors could affect our outcome variable. Multilevel modeling accommodates this data structure and can account for potential correlation between municipalities in the dataset. If we did not pool our data (i.e., only used tribe-level variables), then classical linear regression would produce variable inferences. If we pooled all of our data (i.e., only used municipal-level variables), we would obscure potentially important variation within the municipalities. Therefore, we rely on the partial pooling that multilevel modeling permits.⁶⁵

Findings

To test our theory, we estimate a number of regressions. In the baseline model (Model 1 in Table 1), we include measures of whether the tribe is small, Christian, or Bedouin in origin, as well as the municipality's density and poverty rate. As we theorized earlier, small tribes may nominate relatively more female candidates to improve their electoral representation. The other four variables test the alternative explanations for female candidates, especially those that emphasize socioeconomic and cultural factors.

Variable	Model 1	Model 2	Model 3	Model 4
<i>Tribe-Level Variables</i>				
<i>Small Tribe</i>	2.41***	2.34***	2.33***	3.27**
	(0.20)	(0.20)	(0.41)	(1.46)
<i>Bedouin Tribe</i>	-0.72***	-0.61**	-0.85**	
	(0.24)	(0.24)	(0.42)	
<i>Christian Tribe</i>	0.45	0.45	0.63**	
	(0.47)	(0.47)	(0.30)	
<i>Tribal Cohesion</i>		-1.10***		
		(0.32)		
<i>Municipality-Level Variables</i>				
<i>Poverty Rate</i>	-0.01	-0.01		
	(0.01)	(0.01)		
<i>Density</i>	0.03	0.01		
	(0.03)	(0.03)		
<i>Electoral Districts</i>		-0.01		
		(0.02)		
<i>Seats Per District</i>		0.01		
		(0.04)		
<i>Municipality Fixed Effects?</i>	No	No	Yes	Yes
<i>Tribe Fixed Effects?</i>	No	No	No	Yes
<i>N, tribes</i>	739	736	758	758
<i>N, municipalities</i>	87	87	93	93

Table 1: **The Effect of Small Tribes.** Notes: The dependent variable is the number of female candidates minus the number of male candidates nominated by a tribe in a given municipality. Standard errors are in parentheses. Models 1 and 2 are hierarchical linear models; Models 3 and 4 are least squares regressions with standard errors clustered on municipality or municipality and tribe. *** denotes $p < 0.01$, ** denotes $p < 0.05$, and * denotes $p < 0.10$.

As Table 1 shows, *small tribe* is indeed correlated with relatively more female candidates. Whereas small tribes are associated with just 0.9 more male candidates than female candidates on average, other tribes are associated with 3.3 more, holding all else equal. As expected, *Bedouin tribe* is associated with relatively fewer female candidates, although the effect size is smaller. Holding all else equal, a Bedouin tribe is predicted to nominate 2.0 more male than female candidates, compared to 1.3 more male candidates for other tribes. The other variables—*Christian tribe*, *poverty rate* and *density*—are not statistically significant at conventional levels (i.e., $p < 0.05$).

We next expand our baseline model to a full model that incorporates additional control variables: *tribal cohesion*, *electoral districts*, and *seats per district* (Model 2). Both *small tribe* and *Bedouin tribe* are still positively and negatively, respectively, associated with relatively more female candidates. Table 2 displays the substantive impact of the variables, showing that the effects associated with *small tribe* and *Bedouin tribe* are again large. *Christian tribe* continues to be statistically insignificant. Finally, the coefficient estimate for *tribal cohesion* is statistically significant, with cohesive tribes nominating relatively more male candidates, whereas neither density nor poverty have statistically significant relationships with the outcome variable.

Variable	Shift	Mean Change in Predicted Value
<i>Small Tribe</i>	from 0 to 1	2.4*** (-3.6, -0.8)
<i>Bedouin Tribe</i>	from 0 to 1	-0.6** (-2.4, -1.1)
<i>Christian Tribe</i>	from 0 to 1	0.4 (-1.9, -0.1)
<i>Tribal Cohesion</i>	from 25 th to 75 th percentile	-1.1*** (-1.4, -1.0)

Table 2: **Simulated Changes in Predicted Values of Gender Difference.** The predicted values were estimated by shifting one variable at a time from Model 2, while holding all other numerical variables at their means and qualitative variables at their medians. 95 percent confidence intervals are in parentheses. Note that no municipality-level variables attain statistical significance. *** denotes $p < 0.01$, ** denotes $p < 0.05$, and * denotes $p < 0.10$.

Additional analyses confirm the results. In Models 3 and 4, we introduce municipality and tribe fixed effects in an least squares framework, clustering the standard errors by

municipality or municipality and tribe. These robustness checks ensure that we account for omitted variables that our controls do not address. Model 4 is particularly interesting because it takes advantage of the fact that the same tribe is small in one municipality and not in another municipality to investigate how tribe size affects tribes' candidate nomination practices.

Finally, we perform a series of robustness checks using our baseline and full models, the results of which are in the supplementary information. In all cases, we find that *small tribe* remains significantly and positively related to our dependent variable.

1. To deal with missing data from our expert survey, we first code all those tribes about which experts were unable to comment as large and then as small.
2. We use an alternative coding for tribe size based on Google hits data.
3. We use the proportion of female candidates nominated as our dependent variable.
4. To explore whether certain tribes—perhaps those that are traditionally loyal to the king (e.g., ethnic Jordanian tribes) or those that are not traditionally loyal to the king (e.g., ethnic Palestinian tribes)—nominate female candidates to demonstrate their support for the regime, we: (1) introduce an indicator for whether the tribe is ethnically Palestinian; and (2) introduce an indicator for municipalities with majority Palestinian populations.
5. We introduce an indicator variable for tribes coded as “medium” by our expert survey.
6. To explore spatial dynamics, we: (1) add indicators for the twelve governorates into which the municipalities are grouped; and (2) sub-set the analysis by governorate.
7. We introduce an indicator variable for urban municipalities.
8. To explore spillover effects, we control for municipalities that border other municipalities electing a large number (five, six, or seven) of female candidates. We also interact *small tribe* and the indicator for female-friendly neighboring municipalities.

The analyses show consistent support for our argument about the strategic entry of female candidates. Small tribes are associated with relatively more female candidates, even when we control for a number of relevant factors that could also affect the probability of a tribe running female candidates. Just as significant, the effect of small tribes is the largest effect that we find in substantive terms. There is mixed support for the alternative explanations. Bedouin tribes nominated relatively more men. None of the other variables, however, have effects that are robust across all models. Thus, we conclude that our strategic theory does the best job of explaining differences across tribes and municipalities in the nomination of women.

The Origins of Small Tribes

One limitation of the analysis is that small tribes could be located in relatively “modern” parts of Jordan. Perhaps small tribes moved to wealthier or denser municipalities. Or perhaps members of small tribes are more likely to be economic migrants to the municipality, which suggests that they may be better-educated and possibly more open to female political participation. If these conditions were to hold, then they would provide an alternative explanation for the generally weak empirical support for the socioeconomic variables.

To ensure that our “treatment” group of small tribes is similar to the control group of other tribes, we match these groups using several relevant variables and nearest-neighbor propensity score matching.⁶⁶ This method improves the balance in our data, with the mean differences being reduced for all covariates and the percent improvements averaging 99 percent. After matching, we repeat the baseline and full models from Table 1. As Table 3 shows, even after matching, small tribes are associated with significantly more female candidates than male

candidates. The estimated difference between the number of female and male candidates nominated in the full model is 0.8 for small tribes versus 2.3 for other tribes.

Variable	Model 5	Model 6
<i>Tribe-Level Variables</i>		
<i>Small Tribe</i>	2.23*** (0.20)	2.18*** (0.20)
<i>Bedouin Tribe</i>	-0.75*** (0.23)	-0.65*** (0.23)
<i>Christian Tribe</i>	0.45 (0.44)	0.44 (0.44)
<i>Tribal Cohesion</i>		-1.03*** (0.31)
<i>Municipality-Level Variables</i>		
<i>Poverty Rate</i>	-0.01 (0.01)	-0.01 (0.01)
<i>Density</i>	0.03 (0.03)	0.01 (0.03)
<i>Electoral Districts</i>		-0.01 (0.02)
<i>Seats Per District</i>		0.02 (0.04)
<i>N, tribes</i>	708	708
<i>N, municipalities</i>	75	75

Table 3: **The Effect of Small Tribes, Post-Matching.** Note: Nearest-neighbor propensity score matching with replacement was used. The treatment was small tribe. Standard errors are in parentheses. *** denotes $p < 0.01$, ** denotes $p < 0.05$, and * denotes $p < 0.10$.

Another alternative explanation is that small tribes may be more “modern” than large tribes because their tribal identity finalized later. However, there is no evidence that suggests the evolution of tribal identity for small tribes is slower than for large tribes. Moreover, there is no reason to believe that tribes with a newer identity would be more supportive of women’s representation. The opposite possibility—that small tribes are more cohesive than large tribes and, therefore, more willing to run female candidates because they can better control their policy choices—is also not likely to be true. As Figure 3 in the supplementary information shows,

larger tribes are actually somewhat more cohesive than small tribes. In sum, accounting for the potentially unique traits of small tribes only confirms our earlier conclusions.

Conclusion

In Jordan, after a gender quota was enacted, small tribes disproportionately took advantage of the reform to gain representation. Indeed, small tribes in Jordan frequently used the women's quota to win council seats, whereas larger tribes, which could more easily win seats competitively, did not. The enlargement of political deliberation to include peripheral groups is a normatively desirable phenomenon, but it also means that women nominated via the quota are likely to face double discrimination: first, as women and second, as representatives of small tribes. In this context, it is unfortunately not surprising that Jordanian women on municipal councils are mocked⁶⁷ and socially ostracized for engaging in traditionally male activities.⁶⁸

Our findings about the tribal uses of the gender quota in Jordan tell us something not only about how tribes elsewhere in the Muslim world might respond to gender quotas but also about the behaviors of a range of conservative political parties given that tribes in Jordan behave so much like parties. Clark and Schwedler found that Islamist parties in Jordan and Yemen acted strategically with regards to women's participation.⁶⁹ Islamists may similarly nominate women when it is to their advantage and discourage their participation when it might divide the party. Like tribes, strategic considerations shape Islamists' support for women's political participation.

Our findings are also significant for policy makers and practitioners who are interested in supporting women's representation in the Muslim world and beyond. Not only are gender quotas and tribes present in a number of countries, but Jordan is also representative of broader trends in that it adopted gender quotas out of desire to appeal to Western donors.⁷⁰ In the presence of

external incentives, countries that adopt quotas because of international pressure may immediately increase women's descriptive representation, but find that substantive benefits of women in office will only manifest with time. Understanding the longer-term substantive and symbolic effects of quotas in Jordan and elsewhere in the Muslim world will be a welcome direction for future research.

Notes

We thank Lindsay Benstead, Lisa Blaydes, Laurie Brand, Janine Clark, Adi Greif, Kristen Kao, Stefanie Nanes, Aili Tripp, Sean Yom, Yael Zeira and participants at workshops hosted by the Project on Middle East Political Science and the University of Pennsylvania for their feedback on earlier versions of this article. We also thank Maria Blanco Polencia and Heba Nasr for excellent research assistance. Our names are listed in alphabetical order.

¹ As we discuss below, tribes are key political actors in Jordan. A tribe (*'ashira*) refers to a “group of people distinguished from other groups by notions of shared descent, whether real or imagined.” See Yoav Alon, *The Making of Jordan: Tribes, Colonialism and the Modern State* (New York: I. B. Tauris, 2007), 8.

² Susan Franceschet, Mona Lena Krook, and Jennifer M. Piscopo, “Conceptualizing the Impact of Gender Quotas,” in Susan Franceschet, Mona Lena Krook, and Jennifer M. Piscopo, eds., *The Impact of Gender Quotas: Women's Descriptive, Substantive, and Symbolic Representation* (New York: Oxford), 10.

³ Michael L. Ross, “Oil, Islam, and Women,” *American Political Science Review* 102 (February 2008), 107–123.

⁴ Ronald Inglehart and Pippa Norris, *Rising Tide: Gender Equality and Cultural Change* (New York: Cambridge University Press, 2003).

⁵ Lindsay J. Benstead, Amaney A. Jamal, and Ellen Lust, “Is It Gender, Religiosity or Both? A Role Congruity Theory of Candidate Electability in Transitional Tunisia,” *Perspectives on Politics* 13 (March 2015), 74–94.

⁶ *Ibid.*, pp. 75-76.

⁷ Richard E. Matland and Donley T. Studlar, “The Contagion of Women Candidates in Single-Member District and Proportional Representation Electoral Systems: Canada and Norway,” *Journal of Politics* 58 (August 1996), 707–733; Rainbow Murray, “Why Didn’t Parity Work? A Closer Examination of the 2002 Election Results,” *French Politics* 2 (December 2004), 347–362; Timothy Longman, “Rwanda: Achieving Equality or Serving an Authoritarian State?” in Hannah Britton and Gretchen Bauer, eds., *Women in African Parliaments* (Boulder: Lynne Rienner, 2006); Guillaume Fréchette, Francois Maniquet, and Massimo Morelli, “Incumbents’ Interests and Gender Quotas,” *American Journal of Political Science* 52 (October 2008), 891–909; Mona Lena Krook, *Quotas for Women in Politics: Gender and Candidate Selection Reform Worldwide* (New York: Oxford University Press, 2009); Melanie M. Hughes, “Intersectionality, Quotas, and Minority Women’s Political Representation Worldwide,” *American Political Science Review* 105 (August 2011), 604–620.

⁸ Sheila Carapico, *Political Aid and Arab Activism: Democracy Promotion, Justice, and Representation* (Cambridge: Cambridge University Press, 2013), ch. 3; Sarah Sunn Bush, *The Taming of Democracy Assistance: Why Democracy Promotion Does Not Confront Dictators* (Cambridge: Cambridge University Press, 2015), ch. 7.

⁹ World Bank, *Capabilities, Opportunities, and Participation: Gender Equality and Development in the Middle East and North Africa Region* (Washington, D.C.: World Bank, 2012), viii.

¹⁰ Amanda Clayton, “Electoral Gender Quotas and Attitudes Toward Traditional Leaders: A Policy Experiment in Lesotho,” *Journal of Policy Analysis and Management* 33 (Fall 2014), 1007–1026.

¹¹ Ellen Lust-Okar, “Reinforcing Informal Institutions through Authoritarian Elections: Insights from Jordan,” *Middle East Law and Governance* 1 (2009), 3–37; Kate Baldwin, “When Politicians Cede Control of Resources: Land, Chiefs, and Coalition-Building in Africa,” *Comparative Politics* 46 (April 2014), 253–271; Eleanor Gao, “Tribal Mobilization, Fragmented Groups, and Public Goods in Jordan,” *Comparative Political Studies*, forthcoming.

¹² Mark S. Weiner, *The Rule of the Clan: What an Ancient Form of Social Organization Reveals about the Future of Individual Freedom* (New York: Farrar, Straus, and Giroux, 2013); Valerie M. Hudson, Donna Lee Bowen, and Perpetua Lynne Nielsen, “Clan Governance and State Stability: The Relationship between Female Subordination and Political Order,” *American Political Science Review* 109 (August 2015), 536.

¹³ Lisa Blaydes and Safinaz El Tarouty, “Women’s Electoral Participation in Egypt: The Implications of Gender for Voter Recruitment and Mobilization,” *Middle East Journal* 44 (Summer 2009), 364–380; Lisa Blaydes, *Elections and Distributive Politics in Mubarak’s Egypt* (New York: Cambridge University Press, 2011); Daniel Corstange, “Vote Trafficking in Lebanon,” *International Journal of Middle East Studies* 44 (August 2012), 483–505.

¹⁴ Jennifer Gandhi and Ellen Lust-Okar, “Elections Under Authoritarianism,” *Annual Review of Political Science* 12 (2009), 417.

¹⁵ Ronald Inglehart and Pippa Norris, “The True Clash of Civilizations,” *Foreign Policy* 135 (March–April 2003), 62–70.

¹⁶ Ross.

¹⁷ Benstead, Jamal, and Lust.

¹⁸ On the limitations of the supply and demand framework, see Mona Lena Krook, “Beyond Supply and Demand: A Feminist–Institutionalist Theory of Candidate Selection,” *Political Research Quarterly* 63 (December 2010), 707–720.

¹⁹ Krook, 2009.

²⁰ Miki Caul Kittilson, *Challenging Parties, Changing Parliaments: Women and Elected Office in Contemporary Western Europe* (Columbia, O.H.: The Ohio State University Press, 2006).

²¹ Matland and Studlar.

²² Janine Astrid Clark and Jillian Schwedler, “Who Opened the Window? Women’s Activism in Islamist Parties,” *Comparative Politics* 35 (April 2003), 293–312.

²³ James N. Sater, “Changing Politics from Below? Women Parliamentarians in Morocco,” *Democratization* 14 (August 2007), 732.

²⁴ See, for example: Gregory D. Schmidt and Kyle L. Saunders, “Effective Quotas, Relative Party Magnitude, and the Success of Female Candidates: Peruvian Municipal Elections in Comparative Perspective,” *Comparative Political Studies* 37 (August 2004), 704–724; Lisa Baldez, “Primaries vs. Quotas: Gender and Candidate Nominations in Mexico, 2003,” *Latin American Politics & Society* 49 (Fall 2007), 69–96; Leslie A. Schwindt-Bayer, “Women Who Win: Social Backgrounds, Paths to Power, and Political Ambition in Latin American Legislatures,” *Politics & Gender* 7 (March 2011), 1–33; Rainbow Murray, “Parity and Legislative Competence in France,” in Susan Franceschet, Mona Lena Krook, and Jennifer M.

Piscopo, eds., *The Impact of Gender Quotas: Women's Descriptive, Substantive, and Symbolic Representation* (New York: Oxford); Alice Kang, "The Effect of Gender Quota Laws on the Election of Women: Lessons from Niger," *Women's Studies International Forum* 41 (November-December 2013), 94–102.

²⁵ Sater; Fréchette, Maniquet, and Morelli; Krook, 2009.

²⁶ Lust-Okar.

²⁷ See, for example: Blaydes; Corstange.

²⁸ Ellen Lust-Okar and Amaney Ahmad Jamal, "Rulers and Rules: Reassessing the Influence of Regime Type on Electoral Law Formation," *Comparative Political Studies* 35 (April 2002), 358.

²⁹ National Center for Human Rights, *Municipal Elections Report* (Amman: National Center for Human Rights, 2007).

³⁰ Lust-Okar, p. 15.

³¹ See, for example: Pippa Norris and Joni Lovenduski, *Political Recruitment: Gender, Race and Class in the British Parliament* (Cambridge: Cambridge University Press, 1995); Elin Bjarnegård and Pär Zetterberg, "Removing Quotas, Maintaining Representation: Overcoming Gender Inequalities in Political Party Recruitment," *Representation* 47 (July 2011), 187–199.

³² This was not the first time that the regime included women in politics to appeal to foreign aid donors. For other examples, see Laurie A. Brand, *Women, the State, and Political Liberalization: Middle Eastern and North African Experiences* (New York: Columbia University Press, 1998).

³³ Assaf David and Stefanie Nanes, "The Women's Quota in Jordan's Municipal Councils: International and Domestic Dimensions," *Journal of Women, Politics & Policy* 32 (October-November 2011), 284.

³⁴ *Ibid.*, p. 288.

³⁵ Mona Lena Krook, “Reforming Representation: The Diffusion of Gender Quotas Worldwide,” *Politics & Gender* 2 (September 2006), 303–327; Sarah Sunn Bush, “International Politics and the Spread of Quotas for Women in Legislatures,” *International Organization* 65 (January 2011), 103–137.

³⁶ See the supplementary information for further details.

³⁷ Jason Seawright and John Gerring, “Case Selection Techniques in Case Study Research,” *Political Research Quarterly* 61 (June 2008), 299–300.

³⁸ Hudson, Bowen, and Nielsen.

³⁹ Amal Sabbagh, “The Arab States: Enhancing Women’s Political Participation,” in Julie Ballington and Azza Karam, eds., *Women in Parliament: Beyond Numbers*, Rev. ed. (Stockholm: International IDEA, 2005), 55.

⁴⁰ Lindsay J. Benstead, “Why Quotas Are Needed to Improve Women’s Access to Services in Clientelistic Regimes,” *Governance* (2016), forthcoming; Stefanie Nanes, “‘The Quota Encouraged Me to Run’: Evaluating Jordan’s Municipal Quota for Women,” *Journal of Middle East Women’s Studies* 11 (November 2015), 271–272.

⁴¹ David and Nanes, p. 291.

⁴² Janine A. Clark, “The Conditions of Islamist Moderation: Unpacking Cross-Ideological Cooperation in Jordan,” *International Journal of Middle East Studies* 38 (November 2006), 550.

⁴³ Author’s interview (Bush) with Jordanian political activist, December 8, 2009, Amman, Jordan.

⁴⁴ Author’s interview (Bush) with retired Jordanian politician, October 22, 2009, Amman, Jordan.

⁴⁵ Gandhi and Lust-Okar.

⁴⁶ Benstead.

⁴⁷ Gary W. Cox, “Is the Single Nontransferable Vote Superproportional? Evidence from Japan and Taiwan,” *American Journal of Political Science* 40 (August 1996), 741-742.

⁴⁸ Yasmeeen Tabbaa, *New Spaces, New Politics? Women, Tribes, and Quotas in Jordan* (Center for Strategic Studies: Amman, 2008), p. 8.

⁴⁹ Author’s interview (Gao) with employee at civic organization, March 24, 2010, Madaba, Jordan.

⁵⁰ Quoted in David and Nanes, p. 292.

⁵¹ Mona Lena Krook, Diana Z. O’Brien, and Krista M. Swip, “Military Invasion and Women’s Political Representation,” *International Feminist Journal of Politics* 12 (March 2010), 66–79; Andrew Beath, Fotini Christia, and Ruben Enikolopov, “Empowering Women through Development Aid: Evidence from a Field Experiment in Afghanistan,” *American Political Science Review* 107 (August 2013), 540–557.

⁵² Anna Larson, “Collective Identities, Institutions, Security, and State Building in Afghanistan,” in Susan Franceschet, Mona Lena Krook, and Jennifer M. Piscopo, eds., *The Impact of Gender Quotas: Women’s Descriptive, Substantive, and Symbolic Representation* (New York: Oxford).

⁵³ The supplementary information is available at <http://sites.temple.edu/sarahbush/research/>.

⁵⁴ Lust-Okar.

⁵⁵ To the best of our knowledge, no comprehensive local data on Jordanian tribes exist other than our own dataset, which contains information on all politically active tribes as of 2007. As such, it is not possible to conduct a two-stage analysis that first predicts the decision to nominate a candidate and then predicts the decision about how many men and women to nominate. Since our interviews do not lead us to conclude that non-politically active tribes are systematically

smaller than politically active tribes, their exclusion from our analysis should not cause us to overestimate the effect of small tribes.

⁵⁶ Levels of agreement with the following statement, recorded on a four-point scale, were compared: “In general, men are more fit than women to be political leaders.” Palestinian-origin Jordanians do not agree with the statement more or less than other Jordanians according to normal levels of statistical significance ($p < 0.27$ two-tailed in a t-test with unequal variance). Data from Sarah Sunn Bush and Amaney Jamal, “Anti-Americanism, Authoritarian Regimes, and Women’s Political Representation: Evidence from a Survey Experiment in Jordan,” *International Studies Quarterly* 59 (March 2015), 34–45.

⁵⁷ Because our argument is about the relative number of men and women nominated, we do not use the number of female candidates as the dependent variable. We do not advance an argument about the raw number of female candidates that tribes will nominate. Our interest is not in explaining whether tribes nominate women, but if they take advantage of the quota in the context of their broader nomination practices.

⁵⁸ One potential criticism of this measure is that it assumes that candidates are running with the support of their tribe. Though that is not always the case, participants in surveys of candidates in Jordan cite kinship ties as by far the most important influence on their decisions to run for political office. See Lust-Okar, 15. As such, we believe this assumption is reasonable.

⁵⁹ Inglehart and Norris, *Rising Tide*, pp. 63-69.

⁶⁰ Nikki R. Keddie, “The Past and Present of Women in the Muslim World,” *Journal of World History* 1 (Spring 1990), 77–108.

⁶¹ Paul A. Jureidini and R. D. McLaurin, *Jordan: The Impact of Social Change on the Role of the Tribes* (New York: Praeger, 1984).

⁶² Inglehart and Norris, *Rising Tide*.

⁶³ Ibid.

⁶⁴ Gao.

⁶⁵ Andrew Gelman and Jennifer Hill, *Data Analysis Using Regression and Multi-level/Hierarchical Modeling* (New York: Cambridge University Press, 2007).

⁶⁶ Daniel E. Ho, Kosuke Imai, Gary King and Elizabeth A. Stuart, “Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference,” *Political Analysis* 15 (Summer 2007), 199–236.

⁶⁷ David and Nanes, p. 293.

⁶⁸ Tabbaa, p. 10.

⁶⁹ Clark and Schwedler.

⁷⁰ Bush, 2011; David and Nanes.