The Political Cost of War Mobilization in Democracies and Dictatorships*

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Abstract

I argue that mobilization for interstate war should be politically costlier for democratic leaders than dictators. Waging interstate war is associated with higher military spending and, often, a reduction in social spending. Variation across regime type in the representation of the general public, civilian elite, and military in leaders' winning coalitions should make democrats more likely than dictators to lose power given war-time patterns of government spending. This argument finds support during the period from 1950 to 2001. My findings provide microfoundations for a number of existing empirical results and suggest that differences in the conflict behavior of democracies and dictatorships should be largest when waging war requires a significant mobilization effort.

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On July 17th, 1945, the leaders of the Allied Powers gathered in Potsdam, Germany to discuss a series of issues related to the termination of World War II. As had been the case at Yalta, Winston Churchill sought to check the ambitions of Joseph Stalin. The opening days of the Potsdam Conference saw Churchill stand firm against Stalin, particularly with respect to the Provisional Government of National Unity in Poland (Feis 1960). Stalin sought Allied-recognition of the "Lublin Poles," which would offer legitimacy and help consolidate the rule of the Soviet-sponsored regime. In contrast, Churchill advocated for democratic elections in Poland in the hope that the "London Poles" would unseat the incumbents (Feis 1960). Churchill's influence at Potsdam, though, was cut short by the results of the British General Election. Churchill returned to London on July 25th for the election returns and on the following day learned that his Conservative Party had been soundly defeated by Clement Attlee's Labour Party. Prime Minister Attlee arrived as Britain's official representative at the Potsdam Conference on July 27th (Harris 1982). Thus, Churchill was removed from office before the completion of World War II by the same people whom credited him with saving Britain while Stalin would continue to lead the Soviet Union until his death from natural causes in 1953.[1]

Research on interstate conflict largely agrees that domestic politics, and democratic political institutions in particular, significantly affect interstate conflict processes. Institutional explanations for differences in conflict behaviors across regime type often assume that the political costs of interstate war are higher in democracies than in autocracies (e.g., Bennett and Stam 1998, Russett and Oneal 2001, Reiter and Stam 2002, Bueno de Mesquita et al. 2003).[2] Recent scholarship, though, concludes that the prospect of a leader being removed from power for participating in a war does not vary across regime type and the outcome of an interstate war affects the political survival of autocratic leaders but not democratic incumbents (Chiozza and Goemans 2004, Debs and Goemans 2010). This research implies interstate war is not costlier for democratic leaders than it is for dictators and, more importantly, that our explanations for variation in conflict behavior across regime type follow from questionable microfoundations. If at least some aspect of interstate war is not more costly for democrats than dictators, then our understanding of why democracies and non-democracies differ in when they initiate, reciprocate, and terminate interstate conflicts and wars is flawed.

[1] Notably, the Allies agreed to recognize the Provisional Government of National Unity at Potsdam upon the condition the new Polish regime would hold "free and unfettered elections as soon as possible" (Feis 1960). Poland's first democratic elections were held in 1991.

[2] The terms non-democracy, autocracy, dictatorship, authoritarian, and their various derivatives are generally used interchangeably throughout this paper to refer to those governments that are not democracies.

I argue that a fundamental but often overlooked aspect of interstate war is costlier for democrats than it is for dictators, provides an explanation for why conflict behavior varies across regime type, and accounts for why Churchill and other democratic leaders might be removed from office despite overseeing successful interstate war efforts while dictators like Stalin are able to remain in power. Fighting in an interstate war generally requires a government to increase military spending and, often, is accompanied with a decrease in the proportion of national resources dedicated to non-military purposes (Sandler and Hartley 1995). The difference between the peace-time and war-time distribution of a government's economic resources represents its economic mobilization for interstate war (e.g., Bueno de Mesquita et al. 2003, Goldsmith 2007). Existing research on mobilization generally focuses on how it influences the escalation of an interstate dispute to war or a war's outcome (among others, Organski and Kugler 1980, Slantchev 2005) and largely ignores its domestic political consequences. I argue mobilization for interstate war should have a differential effect on the probability democratic and non-democratic incumbents remain in power. This claim follows from the observation that the winning coalitions of democratic leaders largely consist of people who prefer relatively lower military spending and higher social spending than the members of society that largely make-up the winning coalitions of non-democratic leaders (the general public versus members of the military and civilian elite). This implies that the higher military spending inherent in a mobilization effort and the lower social spending that often accompanies war mobilization should be politically costlier for a democratic leader than a dictator. I find empirical support for this argument: between 1950 and 2001, higher military spending during an interstate war increased the probability a democratic leader would be removed from office significantly more than the probability a non-democratic leader would lose power. The magnitude of this effect is greater when a mobilization effort is accompanied by a reduction in social spending. These results imply that prosecuting an interstate war is politically costlier for democrats than it is for dictators when fighting the war requires a leader to alter the peace-time distribution of government spending. This suggests the political cost of mobilization influences multiple aspects of the conflict process and that variation in the conflict behavior of democracies and non-democracies should be more pronounced when fighting requires a significant mobilization of resources.

The remainder of this article proceeds in seven sections. The first describes research on the empirical relationship between leader survival, interstate war, and regime type. The second section discusses economic mobilization for interstate war. The third presents my argument for

why democratic leaders should be more likely to lose office than non-democratic leaders given war-time patterns of government spending. The fourth section describes my empirical tests while the fifth reports the results of my analyses. The cases of Winston Churchill and Joseph Stalin are then used to illustrate how war mobilization and regime type interact to influence leader survival. The article concludes with a discussion of the implications of my findings for the relationship between interstate conflict and regime type.

1 Leader Survival, Interstate War, and Regime Type

Institutional explanations for variation in conflict behavior across regime type often argue that the cost of war is greater in democracies than it is in non-democracies (e.g., Schultz 2001*a*, Reiter and Stam 2002, Bueno de Mesquita et al. 2003). While these accounts often differ in their specifics, the general logic is that variation in political accountability across regime type makes it more likely that a democratic leader who retains office through elections will be punished by the public for leading her country into an interstate war or overseeing a losing war effort than a dictator who only needs the support of the political elite to stay in power. Scholars often cite the results of Bueno de Mesquita and Siverson (1995) as empirical justification for the assumption that interstate war is costlier for democrats than it is for dictators. However, this inference does not follow from their analysis. Bueno de Mesquita and Siverson (1995) show that the unconditional probability of being removed from power is greater for a democratic leader than it is for a non-democratic incumbent; that is, in general democratic leaders are more likely to lose office than non-democratic leaders. Bueno de Mesquita and Siverson are silent, though, on the crucial question of how political survival differs across regime type *conditional* on participation in or the outcome of an interstate war.[3]

Recent research concludes the relationship between leader survival, interstate war, and regime type is very different than assumed by most explanations of autocratic and democratic conflict behavior. Focusing first on participation in an interstate war, Chiozza and Goemans (2004) find that the probability of an incumbent retaining office is statistically unrelated to her country's involvement in a war. Distinguishing between how a leader is removed from power, Chiozza and Goemans (2011) find that participating in an international conflict does not alter the probability that a democratic leader will experience either a regular or forcible removal from

[3]Interested readers are directed to Debs and Goemans (2010) for a more detailed discussion of this issue.

office. In contrast, autocratic leaders who initiate conflicts decrease their likelihood of both regular and irregular removal from office, as long as they do not subsequently lose an ensuing war. Turning to war outcomes, Chiozza and Goemans (2004) and Debs and Goemans (2010) find that the tenure of *autocratic* leaders is more sensitive to interstate war outcomes than is the political survival of democratic leaders. Their analyses indicate the probability a democratic incumbent will be removed from office is not significantly affected by her country's performance in an interstate war. Non-democratic incumbents, however, are rewarded with a lower probability of losing office upon winning an interstate war and are punished with a higher probability of removal from power after losing a war. A slightly more nuanced relationship between war outcomes and political survival emerges if we consider the manner of removal. Chiozza and Goemans (2011) find that losing an interstate war increases the likelihood an autocrat suffers a regular and a forcible removal from office. They fail to find a significant relationship between interstate war outcomes and the likelihood a democratic leader is removed through peaceful means, but do find that leaders of parliamentary democracies face a higher probability of forcible removal upon losing a war. However, one of the hallmarks of democratic governance is the peaceful transition of political power. Only 5.5% of democratic leaders between 1919 and 2003 lost office in an irregular manner (figure based on data from Debs and Goemans 2010). Forcible removals therefore are empirically rare in democracies. When considered together, the recent empirical scholarship on the relationship between leader survival, interstate war, and regime type uncovers no systematic evidence that participating in or losing an interstate war is politically costlier for democrats than it is for dictators.

It is possible that strategic behavior obscures the actual relationship among leader survival, interstate war, and regime type. Schultz (2001*b*) argues that political incumbents have an incentive to avoid participating in the interstate wars in which a losing effort would see them removed from power. Subsequently, the wars we observe are disproportionately drawn from the non-random sample of wars in which leaders are likely to retain office even if their states are defeated. If a leader's ability to identify which wars fall into this non-random sample is a function of regime type, then statistical analyses would not capture the data generating process among leader survival and interstate war in democracies and dictatorships. Debs and Goemans (2010) raise two critiques to Schultz's (2001*b*) argument. First, why is it the case that democratic leaders are able to avoid wars in which losing decreases the probability they will be removed from office but not select wars in which winning increases their expected tenure? Second, it

is not obvious why democratic leaders should be able to strategically choose wars that will not endanger their political survival but autocratic incumbents cannot; particularly in light of Bas's (2012) finding that democracies are more likely to choose suboptimal foreign policies than are non-democracies. Without sufficient answers to these questions, it is unclear the extent to which strategic censoring can explain why democratic leaders are not regularly punished for participating in and/or losing interstate wars.

Institutional explanations for variation in conflict behavior across regime type rely on the questionable assumptions that democratic leaders are more likely to be removed from power than autocratic leaders for participating in or losing an interstate war. If interstate war is not more costly for democratic leaders than it is for dictators, then much of what we think we know about the relationship between regime type and interstate conflict is wrong. In the next section I argue a common feature of interstate war is politically costlier for democratic leaders than dictators but largely has been overlooked by scholars: economic mobilization for war.

2 War Mobilization and Its Political Cost

Interstate wars are costly (most notably, Fearon 1995). In addition to the inherent fatalities, prosecuting an interstate war leads governments to increase the economic resources dedicated to the military (*e.g.*, Sandler and Hartley 1995). The increase in a government's allocation of resources to the military associated with prosecuting an interstate war represents a state's economic mobilization for war (Bueno de Mesquita et al. 2003, Goldsmith 2007). It is instructive to consider the degree to which states have mobilized for contemporary interstate wars. Between 1950 and 2001, countries fighting in an interstate war allocated, on average, 6.8% of their annual gross domestic product to military spending while countries at peace spent only 2.5% of their annual GDP on the military. This 170% average increase in national defense burdens associated with war mobilization is statistically significant at greater than the 0.01 level.[4]

Economic mobilization for war, or higher military spending in general, does not necessarily imply a complementary decrease in the proportion of a state's economic resources allocated to non-military spending. For example, governments can increase military spending without cutting non-military expenditures by raising taxes (e.g., Tilly 1975, Bank, Stark and

[4]Military spending, GDP, and war participation data are drawn from the National Material Capabilities data set (version 3.1) (Singer, Bremer and Stuckey 1972), Gleditsch's (2002) Expanded GDP and Trade data set, and the ICB project (Brecher and Wilkenfeld 1997), respectively.

Thorndike 2008), borrowing money on the international credit market (Schultz and Weingast 2003, Shea Forthcoming), and/or inflation (Capella 2013). However, at least during the last sixty years fighting an interstate war has been associated with governments allocating fewer of their economic resources to non-military purposes. On average, governments distributed approximately 75.4% of total spending to non-military programs during peace-time but only 50.1% to non-military expenditures when they were fighting an interstate war during the period from 1950 to 2001 (this difference is also statistically significant at greater than the 0.01 level).[5] Importantly for the argument developed below, this reduction in non-military expenditures often includes cuts to social spending. From 1960 to 1999, governments allocated, on average, 1.9% of their annual GDP to health care spending during peace-time but only 1.6% while participating in an interstate war (data drawn from Kugler 2002). This 16.2% decline in health care spending is statistically significant at the 0.01 level. Thus, the increase in military spending associated with war mobilization often is accompanied with a decrease in the proportion of economic resources dedicated to non-military spending.

The political cost of mobilization refers to how the patterns of government spending associated with an interstate war effort affect the political survival of an incumbent leader. Explicit consideration of the domestic consequences of mobilization is almost non-existent in the scholarly literature. There are two notable exceptions. First, selectorate theory argues economic mobilization for war should be relatively more costly for autocratic leaders than for democratic leaders (Bueno de Mesquita et al. 1999, 2003, 2004). This claim follows from the assumptions that winning an interstate war is a public good and the economic resources not allocated to a war effort are then distributed to a leader's winning coalition in the form of private benefits (2003, pgs. 233, 266). These assumptions imply two things in the selectorate model of politics. One, mobilization for interstate war increases the probability an autocratic leader will lose office because it decreases the resources available to be spent on private benefits. Two, mobilization indirectly decreases the probability a democratic incumbent will be removed from power because it increases the probability a state will win a war. As such, selectorate theory concludes the political cost of mobilization should be higher for autocratic leaders than democratic leaders. Second, Goldsmith (2007) argues the existence of opposition parties in democracies provides democratic incumbents with an incentive to mobilize resources for war absent for non-

[5]These figures are based on the National Material Capabilities data set (version 3.1) (Singer, Bremer and Stuckey 1972) and Penn World Table (version 7.1) (Heston, Summers and Aten 2012).

democratic leaders. This is because citizens have the option of punishing an incumbent that fails to allocate the resources necessary to win a war by voting for a leader's political opposition in a democracy. It then follows that *not* mobilizing economic resources for an interstate war effort should be more costly for a democrat than a dictator.

The arguments of Bueno de Mesquita et al. (1999) and Goldsmith (2007) share three characteristics. First, both argue that losing a war should be politically costlier for a democratic leader than a dictator. However, empirical research that analyzes the relationship between war outcomes and the conditional probability of leader survival finds that autocrats are more likely to be removed from power for losing an interstate war than are democratic incumbents (Chiozza and Goemans 2004, Debs and Goemans 2010). Second, both imply that the political cost of mobilizing resources for interstate war should be lower for a democratic leader than a dictator. Third, neither Bueno de Mesquita et al. nor Goldsmith test their predictions about the relative political cost of mobilization across regime type. In contrast to existing research on the topic, I argue the political cost of war mobilization should be higher for democratic incumbents than for autocrats. The next section presents the logic behind this claim.

3 Theoretical Argument

I argue that patterns of war-time spending should be politically costlier for democratic leaders than dictators. This claim follows from a set of straightforward assumptions about how incumbent leaders allocate the economic resources available to them, variation in the composition of winning coalitions across regime type, the relative spending preferences of the general public, civilian elite, and members of the military, and the effect economic mobilization for interstate war has on patterns of government spending.

My argument begins with the common assumption that all incumbents rely on the support of a winning coalition to remain in power (e.g., Bueno de Mesquita et al. 2003). Following Bueno de Mesquita et al., I define an incumbent's winning coalition as the subset of the population who have a say in choosing a government's leadership whose support is necessary for her to retain office. I further assume that one of the principle ways an incumbent maintains the political support of her winning coalition is by allocating scarce economic resources to their preferred policies (Smith and Bueno de Mesquita 2011, Arena and Nicoletti Forthcoming). It therefore follows that an incumbent is more likely to be removed from power if she fails to spend her

nation's economic resources in the manner preferred by her winning coalition.

The above assumptions imply that an incumbent's prospects of retaining office are linked to her winning coalition's assessment of how a leader spends the resources available to her. Understanding how war mobilization influences a leader's probability of survival requires that we identify the preferences of her winning coalition over how a government should distribute its economic resources. At this point it is useful to divide a nation's citizens between the elite, who consist of wealthy civilians and members of the military, and the more numerous and relatively poorer general public. The general public and elite systematically vary in their relative membership in autocratic and democratic winning coalitions and in their relative preferences for social and military spending. I focus first on their political influence across regime type.

The winning coalitions of democratic and non-democratic incumbents differ in two fundamental ways. The first is that the winning coalitions of democratic leaders are larger than the winning coalitions of dictators (Bueno de Mesquita et al. 1999, 2003, 2004). I focus on the second difference. The membership of autocratic and democratic winning coalitions largely are drawn from different segments of a state's population. Put simply, different types of people get into the winning coalitions of democrats and dictators. The winning coalitions of democratic leaders consist of proportionately more members of the general public and fewer civilian elites and members of the military than do the winning coalitions of autocratic incumbents. The comparatively small winning coalitions of autocratic leaders are made-up almost exclusively by members of the civilian elite and/or military (Bueno de Mesquita et al. 2003), with the relative influence of the civilian elite and military varying among non-democratic regime types (*e.g.,* civilian dictatorship vs. military junta).[6] The political institutions of contemporary democracies make it impossible for a democratic incumbent to retain office with only the support of her country's civilian elite and/or military. The relatively high levels of political participation and contestation associated with democracy result in democratic leaders requiring the support of a large portion of the general public to remain in power (among many others, Dahl 1971, Boix 2003, Acemoglu and Robinson 2006). It therefore follows that democratic winning coalitions are composed of proportionately more members of the general public and fewer members of a society's civilian and military elite than are autocratic winning coalitions.

Variation in who gets into a leader's winning coalition across regime type implies that a

[6]Space constraints prevent me from analyzing how variation among non-democracies influences the political cost of mobilization in this manuscript.

democratic incumbent must be relatively more responsive to the preferences of the general public in order to retain office while a dictator must be relatively more responsive to the preferences of the elite. This insight is important for variation in the political cost of mobilization across regime type because members of the public and elite should prefer different distributions of government spending. Specifically, compared to members of the elite, members of the public generally prefer their government allocate relatively more of its resources to social spending and fewer resources to military spending.[7] This claim follows from four observations. The first two concern the preferences of the public and military over military spending. First, military training socializes members of a state's armed forces to value a stronger military and favor higher military spending than the civilian population (Huntington 1957, Nordlinger 1977, Geddes 2003). As Szayna et al. put it, members of the military "have a professional interest in higher defense spending, since they have an occupational and institutional interest in increasing the level of resources devoted to defense. In addition, because military officers have a more detailed and comprehensive knowledge both of what resources the military needs and what acquiring those resources is likely to cost, they are likely to have a clearer idea of what additional resources mean in terms of added capabilities" (2007, pg. 123). Second, while all citizens benefit from the military expenditures required to provide the public good of national security (Samuelson 1954, Olson 1965), the public and members of the military have personal reasons to assess military spending beyond what is required for national security differently. Military spending over and above the level necessary to provide national security crowds out consumption spending popular among the public (Sprout and Sprout 1968, Fordham and Walker 2005) but finances private benefits and club goods for members of the military (on club goods, see Buchanan 1965). These private and club benefits include, but are not limited to, the salaries of members of the military, access to goods and services at reduced price at base or post exchanges, and free or subsidized housing.

Research on civilian-military preferences supports the claim that the public and members of the military have different preferences over military spending. Bachman, Blair and Segal (1977) find that, in general, members of the military prefer higher military spending than do members of the public. Addressing a potential guns-versus-butter trade-off, Holsti (1998, 2001) and Szayna et al. (2007) find that members of the public are more likely than members of the

[7] To be clear, I do not claim that all members of the public prefer higher military spending and lower social spending than all members of the elite. Rather, I argue that, on average, members of the public prefer their government allocate more resources to social spending and fewer resources to military spending than do members of the wealthy civilian elite and military.

military to think that military spending should be decreased in order to increase education spending. This preference for higher military spending by members of the military is consistent with the greater weight they place on military superiority (Szayna et al. 2007) and is driven by a combination of self-selection and socialization (Bachman et al. 2000).

The third and fourth observations concern the preferences of the public and civilian elite over social spending. The third is that the public derives more direct benefits from social spending than do the wealthy civilian elite, whom can provide themselves with the services that the public receives via the welfare state (*e.g.,* health care and education).[8] Notably, this is the case with all means-tested social welfare programs by definition. Second, spending on social programs typically is financed through taxes on the wealth of the civilian elite (Przeworski et al. 2000, Boix 2003). Thus, the civilian elite bear the brunt of the costs of the social welfare state while deriving relatively fewer benefits than members of the public. It therefore follows that the general public would prefer a government allocate proportionately more of its resources to social spending than the civilian elite. This claim is consistent with the negative relationship between income and support for the welfare state in the United States and Europe (Cook and Barrett 1992, Jæger 2006). Beyond a general correlation, Gilens (2009, 2012) finds that the U.S. public is more supportive of social welfare programs than the relatively affluent, defined as the top 20% in terms of income. Focusing on the preferences of the very wealthy, Page, Bartels and Seawright (2013) find that the public prefers increases in spending on health care, food stamps, and social security while the top 1% of income earners prefer reductions in social spending.

Variation in who gets into autocratic and democratic winning coalitions and their spending preferences imply that the political cost of mobilization for interstate war should be higher for a democratic incumbent than a dictator. This claim follows from how mobilization for war influences spending patterns and the distributions of spending that best secure the survival of democratic and non-democratic incumbents. Economic mobilization for interstate war increases the resources allocated to the military and often, but not always, is accompanied with a decrease in the proportion of resources dedicated to social spending. Leaders are less likely to be removed from power when they allocate resources in a manner consistent with the preferences of their winning coalition. The spending preferences of the public, civilian elite, and military and their

[8]Members of the elite do derive some benefits from social spending. In particular, the elite would benefit from some of the long-term consequences of increased social spending, such as an educated and healthier workforce. That said, it is members of the public, and not the elite, that would be better educated, healthier and have a longer life-expectancy due to government spending on social programs.

representation in leaders' winning coalitions across regime type imply that democratic leaders are more likely to lose office given relatively high levels of military spending and low levels of social spending than are dictators. The patterns of government spending typically associated with economic mobilization for interstate war therefore should be more likely to result in a democratic incumbent losing power than an autocratic leader.

I argue that war-time patterns of government spending should be costlier for a democratic leader than a dictator. Two possibilities could cut against my hypothesis. First, a survival-motivated democratic leader has an incentive to finance a war effort in a manner that lowers the probability her winning coalition removes her from office. To see how this might work, it is useful to separate the increase in military spending inherent in a war effort from the decrease in social spending that can accompany mobilization. Leaders that are able to finance an interstate war exclusively through some combination of borrowing money (Slantchev 2012), raising taxes (Bank, Stark and Thorndike 2008), and inflation (Capella 2013) can avoid reducing the proportion of their national resources dedicated to social spending (e.g., the United States in the Second Gulf War). While the members of the public might prefer the resources used to increase military spending be allocated to social spending (as suggested by the findings of Holsti (2001) and Szayna et al. (2007)), fighting a war without reducing social spending could minimize the political cost of mobilization for a democratic incumbent.[9] A second possible issue with my argument is that members of the public might accept higher levels of military spending when their country is fighting a war than would otherwise be the case. This might occur because of a "rally around the flag" effect (Mueller 1973) or a recognition that providing the public good of national security requires greater economic resources during an interstate war (Sandler and Hartley 1995). Regardless of the reason, the increase in military spending inherent in a mobilization effort should not lower the probability a democratic leader remains in office if publics systematically support higher levels of military spending during a war. Ultimately, whether democratic leaders pay a higher political cost than dictators for war-time spending patterns is an empirical question. The next section describes the data and methods used to assess the effect of war mobilization on leader survival across regime type.

[9] One way to think about this is that democratic winning coalitions might be less likely to punish their leaders for the opportunity costs of higher military spending during a war than the realized cost of reduced social spending.

4 Research Design

The relationship between leader survival, regime type, and war mobilization is estimated using data on the universe of political executives from 1950 to 2001.[10] With the exception of variables measuring government spending, all data were taken from the replication materials associated with Debs and Goemans (2010).[11] The dependent variable is the number of days a leader has been in power and is drawn from the *Archigos* project (Goemans, Gleditsch and Chiozza 2009).[12]

There are three theoretical concepts that need to be operationalized in order to assess how war mobilization influences the survival of democratic and non-democratic leaders: regime type, interstate war, and military spending. *Democracy* is coded *1* in year t if a leader's government has a value of *+7* or greater on the 21-point *Polity2* index (Marshall and Jaggers 2005) and *0* otherwise.[13] The dichotomous variable *Interstate War* is coded *1* in year t if a leader's country is involved in an interstate war and *0* otherwise and is based on data from the International Crisis Behavior (ICB) project (Brecher and Wilkenfeld 1997). *Military Spending* is operationalized in two ways in order to model two different conceptions of war mobilization. The first measure reflects a state's defense burden, or the percent of a country's gross domestic product (GDP) allocated to the military in year t. A state's defense burden is the traditional indicator of national military spending in the defense economics literature (e.g., Sandler and Hartley 1995).[14] Military spending is relatively higher during an interstate war than when a country is at peace. Thus, we can think of mobilization as influencing the level of military spending. The second measure

[10] All statistical analyses were conducted in R (R Core Team 2013). Upon publication, I will make available all data and code needed to replicate all of the analyses associated with this manuscript.

[11] Available at `http://www.rochester.edu/college/faculty/hgoemans/research.htm`.

[12] Leader failure is coded as occurring when an incumbent is removed by a domestic audience. Leader replacement by a foreign power or due to a natural death represent fundamentally different data generating processes.

[13] I considered using Bueno de Mesquita et al.'s (2003) variables W and/or *WoverS* to proxy regime type, but decided to use a dichotomous version of the *Polity2* index for three reasons. First, my argument is concerned with variation across regime type in the preferences of the members of a leader's winning coalition, not with variation in the size of a leader's winning coalition. Neither of Bueno de Mesquita et al.'s measures taps into preference variation. Second, their measures are primarily derived from variables from the Polity project and it is not clear what they are capturing independent of the *Polity2* index (Clarke and Stone 2008, Kennedy 2009). Third, and most importantly, W takes on values larger than S in almost 16% of the observations in which data are available for both (see the variable *WoverS* in the file *bdm2s2_nation_year_data.dta* at `http://www.nyu.edu/gsas/dept/politics/data/bdm2s2/Logic.htm`). This is problematic as W should be smaller than S by definition. Given these reasons, I operationalize democracy using the more common Polity data.

[14] The theoretically interesting concept is how much of the resources potentially available to a leader are spent on the military. Measuring spending as a percentage of GDP does a better job at capturing this than a measure of raw expenditures. By explicitly accounting for variation in gross levels of economic resources across countries, standardizing spending over GDP reflects the idea that government spending mirrors the relative preferences and priorities of a state's leadership (Sandler and Hartley 1995).

of military spending identifies the deviation from a state's mean defense burden in year t. If leaders respond to the preferences of their winning coalition through government spending, then long-term, mean levels of military spending should approach the optimal distribution for an office-valuing incumbent. War mobilization results in a positive deviation from mean patterns of military spending. The second measure of military spending allows me to capture this view of mobilization. Both measures of *Military Spending* draw on the National Material Capabilities data set (Singer, Bremer and Stuckey 1972) for expenditure data and GDP data from Gleditsch (2002).

Retrieving unbiased estimates of how regime type, interstate war, and military spending interact to influence leader survival requires that a statistical model include *all* possible interactions among *Democracy*, *Interstate War*, and *Military Spending* (e.g., Braumoeller 2004, Brambor, Clark and Golder 2006). Omitting lower-order and/or "tacit" interaction terms assumes these effects are zero and, therefore, can lead to biased inferences.[15] The effect of war mobilization on leader survival across regime type therefore is modeled with *Democracy*, *Interstate War*, *Military Spending*, and the full set of interaction terms among these three measures.

Instead of using interaction terms, an alternative way to estimate conditional relationships is to split the sample by a relevant variable. Splitting the sample by regime type might seem like an attractive option as it would allow for a more parsimonious specification. However, it is an inappropriate modeling strategy in this case. My theoretical expectation is that war mobilization is relatively costlier for democratic leaders than it is for dictators. Directly assessing this prediction requires that I test whether the effect of mobilization on the probability a leader remains in power is different across regime type. This is possible when the relationship between war mobilization, interstate war, and regime type are modeled using interaction terms, but not with a split-sample approach.[16] This is because one can directly test whether multiple predicted probabilities generated from the same model are statistically different from one another, but can only make claims that predicted probabilities appear to be different when they are generated from different statistical models (in particular, see Kam and Franzese 2007).

While not inherently part of a mobilization effort, participation in an interstate war often is accompanied by a reduction in the proportion of resources allocated to non-military purposes.

[15] For further discussion of the consequences of omitting relevant terms when modeling multiplicative interaction terms, see Braumoeller (2004), Brambor, Clark and Golder (2006), or Kam and Franzese (2007).

[16] Further, modeling conditional relationships using a split-sample appoach is relatively inefficient compared to doing so with multiplicative interaction terms (Kam and Franzese 2007).

The theoretical argument developed above indicates that altering patterns of social spending, in particular, could influence the probability of leader survival. Further, the effect of war-time social spending on leader survival is likely to vary across regime type. I model the relationship between leader survival and social spending in two ways. First, the primary models include a measure of social spending as a control variable. This allows the models to isolate the effect of war mobilization (i.e., higher military spending) on leader survival while accounting for the average influence of an occasional consequence of mobilization (i.e., lower social spending). Second, a set of additional analyses treat social spending as part of the mobilization process. This is accomplished by incorporating a measure of social spending into the set of interaction terms among *Democracy*, *Interstate War*, and *Military Spending*. Doing so allows for an unbiased estimate of how patterns of social spending associated with a mobilization effort influence the survival prospects of democratic and non-democratic leaders. My primary measure of social spending is the percentage of a state's GDP allocated to health care in year t. *Health Care Spending* is drawn from Kugler (2002). I use health care spending to capture a state's social spending because it is available for a greater number of countries for a longer period of time than other common indicators of social spending (*e.g.*, education spending, unemployment insurance, welfare effort). As with *Military Spending*, I also estimate models using the annual deviation from a state's mean *Health Care Spending*.

The statistical models control for a number of factors thought to influence leader survival. I account for whether the leader's country was victorious (*War Win*), vanquished (*War Loss*), or obtained a draw (*War Draw*) in an interstate war during her time in power. Each variable is modeled as a decay function of $War\ Outcome = \frac{1}{1+t}$, where $War\ Outcome \in \{War\ Win, War\ Draw, War\ Loss\}$ and t stands for the number of years since the given outcome was achieved. The war outcome variables are based on data from Brecher and Wilkenfeld (1997). At the state-level, I control for a country's involvement in a *Civil War* in a given year with a dichotomous indicator based on the UCDP/PRIO Armed Conflict Database (Gleditsch et al. 2002). The models also account for four aspects of a state's economy: its (logged) *GDP per capita* (Maddison 2008), *GDP growth* (Maddison 2008), *Trade Openness* (International Monetary Fund 2008), and *Change in Trade Openness* (International Monetary Fund 2008). A state's (logged) *Population* (Singer, Bremer and Stuckey 1972) also is included as a control variable. The models account for three leader-level characteristics thought to influence an incumbent's tenure: a leader's *Age* when he or she entered office, the number of *Previous Times in Office*

he or she served, and whether he or she came to power via an *Irregular Entry*. These three variables are drawn from the *Archigos* project (Goemans, Gleditsch and Chiozza 2009). Finally, all of the models contain a set of variables that identify whether a state is located in *Africa*, the *Americas*, *Asia*, or the *Middle East* (Europe serves as the baseline category). These variables allow the statistical models to capture any region-specific variation in leader survival not explicitly accounted for by the other independent variables.

I estimate leader survival using semi-parametric Cox models. Cox models are preferable to parametric event history models (e.g., exponential, Weibull, or Gompertz) when the phenomenon of theoretical interest is the relationship between a set of covariates and the likelihood of a subject failing and not the distributional form of subject failure (Box-Steffensmeier and Jones 2004). The models estimated here account for non-proportional hazards between covariates and leader survival. Analysis of the Schoenfeld residuals was used to determine whether the influence of an explanatory variable on the hazard of a subject failing was constant over time (Box-Steffensmeier and Jones 2004). Following Box-Steffensmeier and Zorn (2001), any offending variable was interacted with the natural log of a leader's tenure in office up to time t. I also extend the standard Cox model to capture shared frailty among leaders of the same state. Shared frailty event history models account for unobserved heterogeneity across subgroups that makes subjects within group j more or less likely to fail than subjects in group $\tilde{j}$ (Box-Steffensmeier and Jones 2004). Formally, the frailty term ν is a random variable with a mean of *1* and variance of Θ and is drawn from the Gamma distribution. It is conceptually analogous to a random effect clustered on countries in the regression framework. Previously, Chiozza and Goemans (2004), Goemans (2008), and Debs and Goemans (2010) have used Cox models with shared frailty to model leadership survival.

Amelia II was used to address concerns about missing data (Honaker, King and Blackwell 2007).[17] Multiple imputation of missing observations helps avoid the inefficiency and selection bias associated with listwise deletion and is more accurate than single imputation (King et al. 2001, Honaker, King and Blackwell 2007). For the data analyzed here, *Amelia II* is preferable to other imputation programs as it explicitly takes into account the time-series, cross-sectional nature of the data (Honaker, King and Blackwell 2007, Honaker and King 2010). The multiple imputation model was specified with one-year lags, one-year leads, and logical or empirical

[17] I imputed missing values for the constituent terms of the interaction terms and then created the interaction terms based on variables without missing observations. This ensures that the values the interaction terms take on accurately reflect the values of the constituent terms.

upper and lower bounds of variables with missing observations.[18] Including the lags, leads, and bounds improves the predictive performance of the imputation model (Honaker, King and Blackwell 2007, Honaker and King 2010). Further details about the imputation process are available in the Supplementary Appendix. The multiple imputation model produced five data sets of 7,935 leader-year observations (1,431 leaders from 162 countries). The next section presents my analyses of the political cost of mobilization in democracies and dictatorships.

5 Empirical Results

Table 1 reports my regression results. Model 1 operationalizes *Military Spending* as a state's defense burden in year t, or the percent of a state's GDP allocated to military expenditures, while Model 2 measures *Military Spending* as a state's deviation in year t from its average defense burden. The estimates presented in Table 1 reflect the mean coefficients and corrected standard errors, as computed by Rubin's (1987) method, yielded by the estimation of identically specified Cox models on each of the five *Amelia II*-generated data sets.[19] Positive (negative) coefficients indicate higher values of an explanatory variable are associated with a leader facing a greater (lower) hazard of losing office. An interaction with $ln(t)$ signed in the opposite direction of the constituent term indicates a decay in the original effect over a leader's tenure.

Two things about Table 1 are worth noting before discussing the theoretically interesting results. First, the statistically significant Θ indicates non-trivial variation exists in the likelihood of a leader being removed from power across states and that accounting for shared frailty among leaders of the same country is methodologically appropriate. Second, the regional indicators are statistically significant in both models, indicating regional variation in patterns of leader tenure.

The use of multiplicative interaction terms limits the inferences one can draw from Table 1 for two reasons. First, the coefficient associated with any variable tells us the impact of an increase in that variable when all of the other constituent terms are equal to zero (Braumoeller 2004).[20] Second, the standard error associated with a coefficient reflects the uncertainty around

[18] That is, variables that have a lower and upper bound by definition were assumed to fall in the range defined by those bounds (e.g., *Health Care Spending* was forced to take on a value between 0 and 100) while variables without a logical range were bounded by the minimum and maximum values observed in the data set (e.g., *Change in Trade Openness* was forced to fall into the range of -5.82 and 5.72).

[19] The standard errors are computed by taking the square root of $T = \bar{U} + (1 + \frac{1}{m})B$, where T is the total variance associate with the mean coefficient estimate, $\bar{U}$ is the within-imputation variance of the estimated coefficient $[\bar{U} = \frac{1}{m}\sum_{i=1}^{m} U_i]$, B is the between-imputation variance $[B = \frac{1}{m-1}\sum_{i=1}^{m}(\hat{Q} - \bar{Q})^2]$, and $1 + \frac{1}{m}$ is a correction factor to account for simulation error in $\bar{Q}$ (Schafer and Olsen 1998). Calculations based on code from Goemans (2008).

[20] For example, *Interstate War*'s coefficient represents the influence of war on the hazard of leader removal when

a variable's estimated effect when the other constituent terms and interaction terms are equal to zero and does not account for the covariance among that variable, the other constituent terms, and the interaction terms (Brambor, Clark and Golder 2006). These points limit what Table 1 can tell us about how mobilization influences leader survival in democracies and dictatorships.

I therefore used a set of simulations based on the models' parameter estimates to calculate how mobilization for interstate war influences the survival prospects of a democratic leader and a non-democratic leader. I took 1,000 draws from a multivariate normal distribution based on the coefficient and variance-covariance matrices of each model estimated on each of the five imputed data sets using the MSBVAR package in R (Brandt 2012). I then used the simulated coefficients to calculate the probability of a democratic leader and a dictator surviving up to time t over a five-year period given three mobilization scenarios. Each scenario assumes that a leader mobilized her country's resources and fought an interstate war in her first two years in office (mean war duration in the data), and then was able to return military spending back to its mean peace-time levels during the following three years. The values of *Military Spending* used in the simulations represent the average values for a given scenario across the five imputed data sets. Focusing on the simulations based on Model 1, the first scenario assumes that a leader was able to fight a war without increasing military spending from its peace-time level (i.e., *Military Spending* took on values of 2.63%). This serves as a baseline from which we can estimate how politically costly mobilizations are for a leader. The second scenario assumes that a leader engaged in an average mobilization, which was accomplished by setting *Military Spending* to its mean war-time values while the war was being waged (6.61%). The third scenario models a large mobilization effort by setting *Military Spending* to 10.14% during the war, which represents the 80th percentile war-time value of military spending. As this value for *Military Spending* might seem high, it is worth noting that average annual U.S. defense burdens were approximately 32% in World War II, 10% in the Korean War, and 7% in the Vietnam War. Thus, military spending in the "large" mobilization scenario is closer to the U.S. experience in the Korean War than it is to the mobilization of the "Arsenal of Democracy" in World War II. The values of the constituent variables and interaction terms were manipulated as necessary to accurately reflect the different scenarios. All of the simulations assume that the incumbent controlled a European country, won the war, and had either the mean (continuous variables) or median (nominal or ordinal variables) characteristics with respect to the other control variables.

Democracy, *Military Spending*, and their various interactions are *all* equal to zero.

Table 1: Leader Survival, Regime Type, and Mobilization for Interstate War, 1950-2001

	Model 1		Model 2	
	β	s.e.	β	s.e.
Democracy	0.29	0.46	0.39	0.46
Democracy*ln(t)	-0.01	0.07	-0.00	0.07
Interstate War	-0.77	0.42†	-1.00	0.36**
Military Spending	-0.07	0.02**	-0.03	0.02
Democracy* War	-0.53	0.80	0.44	0.60
Democracy*Military	0.09	0.03**	0.01	0.04
Interstate War*Military	-0.06	0.07	-0.06	0.05
Democracy* War*Military	0.16	0.08†	0.22	0.09*
Health Care Spending	-0.01	0.04	-0.01	0.04
Win War	-1.40	0.84†	-1.45	0.84†
Draw War	-0.43	0.61	-0.52	0.62
Lose War	2.06	0.50**	1.92	0.50**
Civil War	0.85	0.37*	0.92	0.37*
Civil War*ln(t)	-0.06	0.06	-0.07	0.06
GDP per capita	2.26	0.20**	2.33	0.20**
GDP per capita*ln(t)	-0.36	0.03**	-0.37	0.03**
Growth	-2.84	0.42**	-2.84	0.43**
Trade Openness	0.06	0.16	0.03	0.16
Δ Trade Openness	-0.14	0.10	-0.13	0.10
Population	0.03	0.04	0.03	0.04
Age	0.01	0.003**	0.01	0.003**
Times in Office	-0.09	0.06	-0.09	0.06
Irregular Entry	4.00	0.38**	4.01	0.38**
Irregular Entry*ln(t)	-0.60	0.06**	-0.61	0.06**
Africa	7.27	0.57**	7.33	0.57**
Africa*ln(t)	-1.20	0.08**	-1.19	0.08**
Americas	5.20	0.52**	5.22	0.53**
Americas*ln(t)	-0.78	0.07**	-0.77	0.07**
Asia	6.47	0.51**	6.43	0.52**
Asia*ln(t)	-1.04	0.07**	-1.03	0.07**
Middle East	6.24	0.65**	6.18	0.65**
Middle East*ln(t)	-0.98	0.09**	-0.99	0.09**
Observations	7935		7935	
Leaders	1431		1431	
Failures	1145		1145	
Log-likelihood	-6640.03		-6639.93	
Wald-test	23.53	**	23.09	**
Θ	0.26	**	0.30	**

Military Spending is defined as a state's defense burden in Model 1 and its annual deviation from its mean defense burden in Model 2.

Two-tailed: †: $p \leq 0.1$; $*$: $p \leq 0.05$; $**$: $p \leq 0.01$

Figure 1 reports the mean predicted probabilities of survival for an autocratic leader (Column A) and a democratic leader (Column B) given no mobilization (solid black line), an average mobilization (dashed red line), and a large mobilization (dotted blue line).[21] Row 1 presents results based on Model 1 in Table 1. Focusing on Column A in Row 1, mobilization for interstate war has a negligible *positive* influence on the likelihood a dictator will remain in office. The probability an autocrat will complete his first year in power given no mobilization is 0.96. This probability increases to 0.97 given an average mobilization and 0.98 given a large mobilization effort. A similar relationship exists when we consider the probability of a dictator completing his fifth year in office. A dictator will remain in power for five years with a probability of 0.58 if his country fought an interstate war without altering their pre-war allocation of military spending. The probability of an autocrat ruling for five years rises to 0.60 in the case of an average mobilization and 0.61 given a large mobilization.

A different picture emerges when we examine the relationship between mobilization for war and the survival of democratic leaders (Row 1, Column B of Figure 1). The probability a democratic leader completes her first year in office is 0.94 given no mobilization, 0.90 given an average mobilization, and 0.86 given a large mobilization. We see similar results when examining the probabilities of a democratic leader staying in power for five years. A democratic leader who fought a war without mobilizing is expected to remain in office for five years with a probability of 0.44. Compared to this scenario, a democratic leader who oversaw an average mobilization is 8% percent less likely to complete her fifth year in office (0.40) while a democratic incumbent whose state had a large mobilization is 19% less like to remain in power for five years (0.35). Thus, the results in Row 1 of Figure 1 suggest that higher levels of military spending during an interstate war lower the probability a democratic incumbent will retain office but has a very small, positive influence on the political survival of dictators.

The same relationships emerge when *Military Spending* is measured as the deviation from a state's mean defense burden. Based on Model 2 in Table 1, Row 2 in Figure 1 reports the mean probability of an autocratic leader (Column A) and a democratic leader remaining in power over a five year period given given no mobilization (solid black line), an average mobilization (dashed red line), and a large mobilization (dotted blue line) for an interstate war. The probability that an autocratic leader will rule for five years given his country fought a war without increasing

[21] More specifically, the quantities reported in Figure 1 represent the mean probability of survival from the 5,000 simulated cumulative survival functions (1,000 for each of the identically specified statistical models estimated on the five imputed data sets).

military spending is 0.59. This probability marginally increases to 0.60 given either an average or large mobilization effort. In contrast, larger positive deviations in a state's military spending during war-time are associated with a lower probability of survival for democratic leaders. The likelihood a democratic incumbent completes her fifth year in office given no mobilization is 0.44, decreases to 0.41 with a mean mobilization effort, and 0.38 given a large positive deviation in military spending during an interstate war.

Figure 1 indicates that larger mobilization efforts decrease the probability a democratic leader retains office and has a negligible positive effect on autocratic survival. Ultimately, though, these results only offer suggestive support for the claim that the political cost of war mobilization is higher for democrats than it is for dictators. To test whether the effect of mobilization on political survival is conditional on regime type, I calculated the difference in the changes in the probability a democratic leader and a dictator remains in power given the move from a) no mobilization to a mean mobilization and b) no mobilization to a large mobilization. These results are reported graphically in Figure 2.

Column A in Figure 2 presents the mean difference across regime type in the probabilities of leader survival given the move from no mobilization to a mean mobilization (solid red line, with the shaded area representing 95% confidence intervals).[22] The results in Row 1 and Row 2 are based, respectively, on Model 1 and Model 2 in Table 1. As the 95% confidence interval remains completely above the zero-line throughout the graphs, the results in Column A indicate that the political cost of having an average mobilization is significantly higher for a democratic leader than it is for a dictator given both measures of military spending.

My analyses of large mobilizations (Column B of Figure 2) also indicate the relative political costs of higher military spending during an interstate war are greater for democratic leaders than dictators. In both Row 1 and Row 2, the difference in the probability of leader survival given a large mobilization effort (dashed blue line with shaded 95% confidence interval) is significantly higher for a democratic incumbent than it is for a non-democratic leader. Thus, democratic leaders are significantly more likely than dictators to lose office given large increases in military spending during an interstate war whether mobilization is captured using a state's defense burden or deviations from a state's average allocation of economic resources to the military.

Figure 2 suggests the differences in the probabilities of leader survival across regime type are

[22] The 95% confidence intervals were calculated by taking the 97.5^{th} and 2.5^{th} simulated values of the difference between the differences of democratic and non-democratic probabilities of survival given the move from the no mobilization scenario to the mean mobilization scenario.

generally greater given a large mobilization than with an average mobilization. For example, the simulations results based on Model 1 (Row 1) indicate that the difference across regime type in the probability of completing five years in office given a large mobilization effort is twice is large as the difference given an average war-time increase in military spending (0.12 versus 0.06). This implies that the relative political cost of mobilization across regime type is an increasing

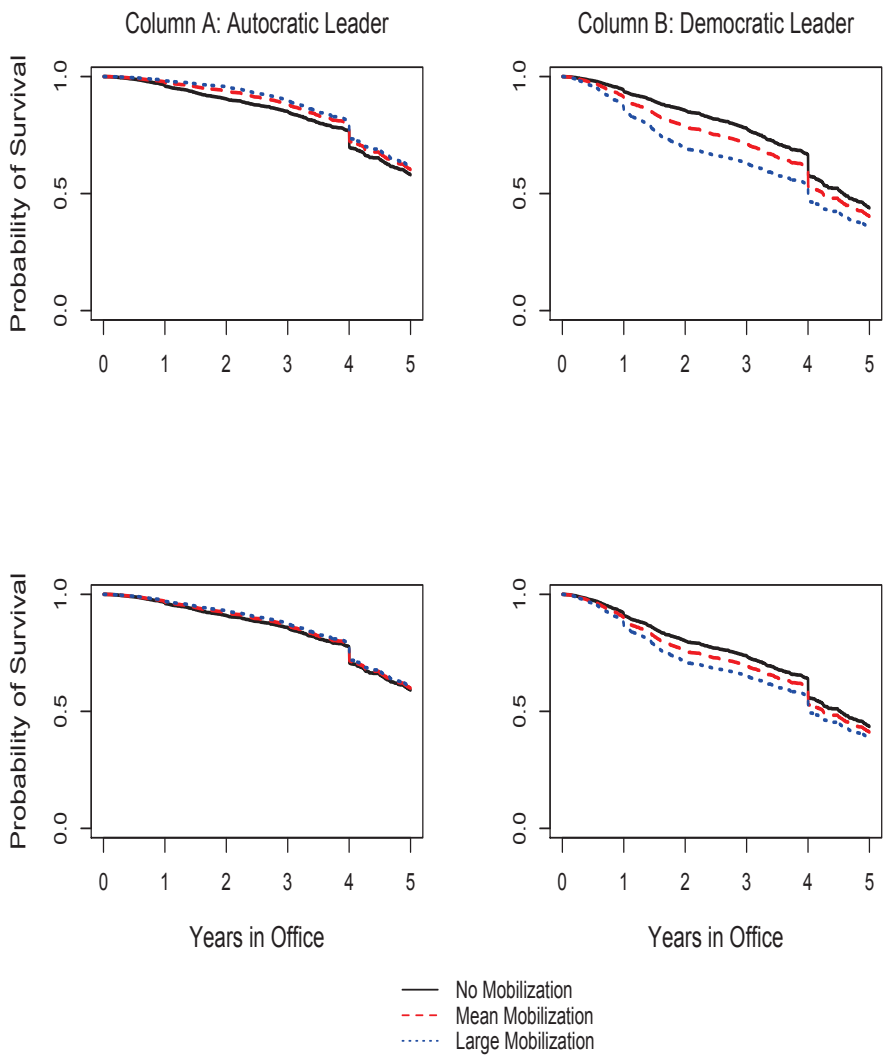

Figure 1: Leader Survival and Mobilization for Interstate War, 1950-2001. Rows 1 and 2 are based, respectively, on Models 1 and 2 in Table 1. *Military Spending* and *Health Care Spending* are measured as percentages of GDP in Model 1 and a state's annual deviation from average spending in Model 2.

function of the size of a mobilization. Thus, as the degree of mobilization increases democratic incumbents pay an increasingly greater political cost relative to non-democratic leaders.

The results of the control variables in Table 1 largely are consistent with prior research. I find that, on average, a leader is more likely to be removed from office after losing an interstate war and less likely to lose power after winning a war than if her country had remained at peace.

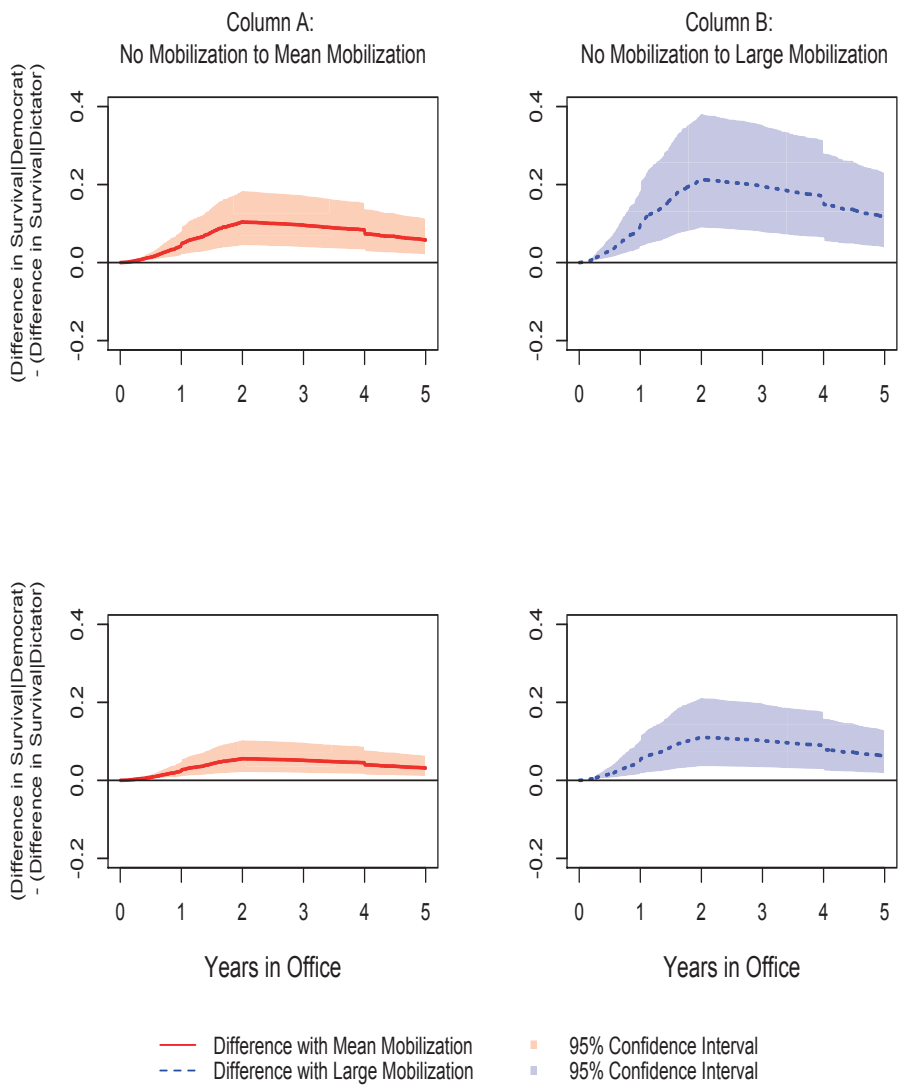

Figure 2: Differences in the Political Cost of Mobilization across Regime Type, 1950-2001. Rows 1 and 2 are based, respectively, on Models 1 and 2 in Table 1. *Military Spending* and *Health Care Spending* are measured as percentages of GDP in Model 1 and a state's annual deviation from average spending in Model 2.

Obtaining a draw does not have a significant influence on a leader's expected tenure.[23] My results suggest that civil war and an irregular entry increase a leader's hazard of losing office, but that these relationships weaken throughout an incumbent's tenure (e.g., Debs and Goemans 2010). I also find that the leaders of wealthier countries face a higher probability of losing office early in their tenures, but that this effect decreases over time. Positive economic growth significantly lowers the probability an incumbent is removed from power (Chiozza and Goemans 2004, Debs and Goemans 2010). I find no significant relationship between an incumbent's probability of survival and the number of previous times she has been in office or her state's trade openness, change in trade openness, or (logged) population.

5.1 Additional Analyses

The findings presented above indicate that mobilization for interstate war is politically costlier for democratic leaders than it is for dictators. I conducted a set of additional analyses to see if this substantive inference holds given different model specifications. For space considerations, I present graphs of the differences across regime type in the probability of leader survival given different mobilization efforts here and report the statistical models in the Supplementary Appendix.

My primary analyses use health care spending to proxy social spending because cross-national data on health care spending are available for a longer period of time for more countries than other indicators of social spending. It is possible, though, that an alternative measure of social spending would not yield the same results. I therefore re-estimated the models reported in Table 1 using a state's education spending to capture social spending (measure taken from World Bank (2001)). Figure 3 reports the difference in the changes in the probability a democratic leader and a dictator retain office given the move from fighting a war with no mobilization to an average mobilization and a large mobilization.

Column A in Figure 3 presents the mean difference across regime type in the probabilities of leader survival given the move from no mobilization to an average mobilization (solid red line,

[23] It should be noted that these findings do not challenge the conclusions of Chiozza and Goemans (2004), Goemans (2008), Debs and Goemans (2010), or Chiozza and Goemans (2011) that the tenure of autocrats is more sensitive to war outcomes than the tenure of democrat incumbents. My findings indicate that, on average, a leader is likely to have a shorter tenure if she oversees a losing war effort than if her state had avoided fighting an interstate war and makes no claims about variation across regime type in the effect of war outcomes on leader survival. Explicitly modeling this variation would have required me to include all of the interactions among *Democracy*, *Interstate War*, *Military Spending*, *War Win*, *War Draw*, and *War Loss* in the same model.

with the shaded area representing 95% confidence intervals). Column B reports results given the move from no mobilization to a large mobilization (blue dotted line, with the shaded area representing 95% confidence intervals). The results in Rows 1 and 2, respectively, are based on models in which military and education spending are measured as a percentage of GDP and the annual deviation from a state's mean spending patterns. As the confidence intervals are

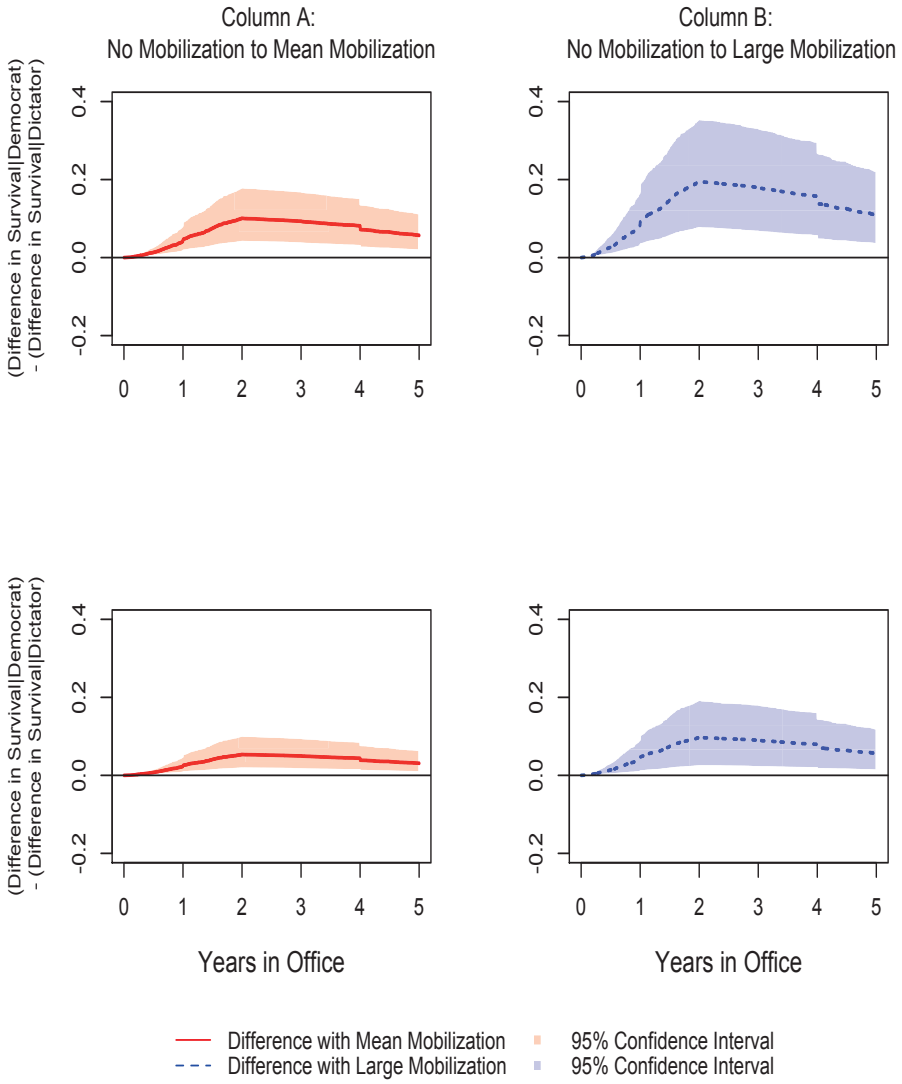

Figure 3: Differences in the Political Cost of Mobilization across Regime Type, 1950-2001. Rows 1 and 2 are based, respectively, on Models 3 and 4 in Table SA-1. *Military Spending* and *Education Spending* are measured as percentages of GDP in Model 3 and a state's annual deviation from average spending in Model 4.

completely above the zero line in all of the graphs, Figure 3 indicates that the political cost of war mobilization is significantly higher in democracies than in dictatorships when social spending is modeled as education spending given both an average mobilization and a large mobilization.

The results presented thus far treat social spending as a control variable. As discussed above, though, the increased military spending during an interstate war often is accompanied by a decrease in the proportion of economic resources dedicated to social spending. We can model how this change in spending patterns influences the effect of war mobilization on the survival of democrats and dictators by incorporating social spending into the set of interaction terms among measures of regime type, interstate war, and military spending. However, doing so in a methodologically appropriate manner results in a very complicated specification. Obtaining unbiased estimates of how regime type, interstate war, military spending, and social spending jointly influence leader survival requires that a statistical model include *all* possible interactions among measures of these concepts (among others, Braumoeller 2004, Brambor, Clark and Golder 2006). The most precise treatment of this issue is given by Braumoeller (2004), who writes that "In any interaction of k independent variables, a full set of $\sum_{k=1}^{n} \binom{n}{k}$ coefficients must be estimated to avoid forcing the estimated hyperplane to assume a shape that may not conform to the general tendency of the pointcloud that it is intended to describe" (pg. 811). Given the four theoretically interesting constituent terms, lower-order interactions, "tacit" interactions, and corrections to address the non-proportional hazards assumption, explicitly including a measure of social spending into the mobilization process requires sixteen explanatory variables. Modeling the effect of mobilization on leader survival across regime type in this manner induces a substantial amount of multicollinearity among the constituent variables and various interaction terms, but is necessary to produce unbiased estimates.

Figure 4 reports the mean difference across regime type in the probabilities of leader survival given the move from no mobilization to a mean mobilization (Column A) and a large mobilization (Column B) derived from models that explicitly incorporate health care spending into the mobilization process. The graphs in Rows 1 and 2 are based, respectively, on models that measure spending as a percentage of GDP and annual deviations from a state's mean spending. The results in Column A indicate that the political cost of an average mobilization is significantly higher for a democratic leader than it is for a dictator regardless of how the spending variables are measured. The results are not as strong for large mobilization efforts (Column B in Figure 4). When *Military Spending* and *Health Care Spending* are modeled as a percentage of GDP

(Row 1), I find that democratic leaders pay a significantly higher cost for a large mobilization than do dictators for their first 3 years and 2 months, or 1,168 days, in power. After that point, the difference in the probability of survival across regime type becomes statistically insignificant at the 0.95 level.[24] There is no significant difference in the effect of a large mobilization on the

[24]Using 90% confidence intervals, the relative cost of mobilization for interstate war is higher for democratic leaders

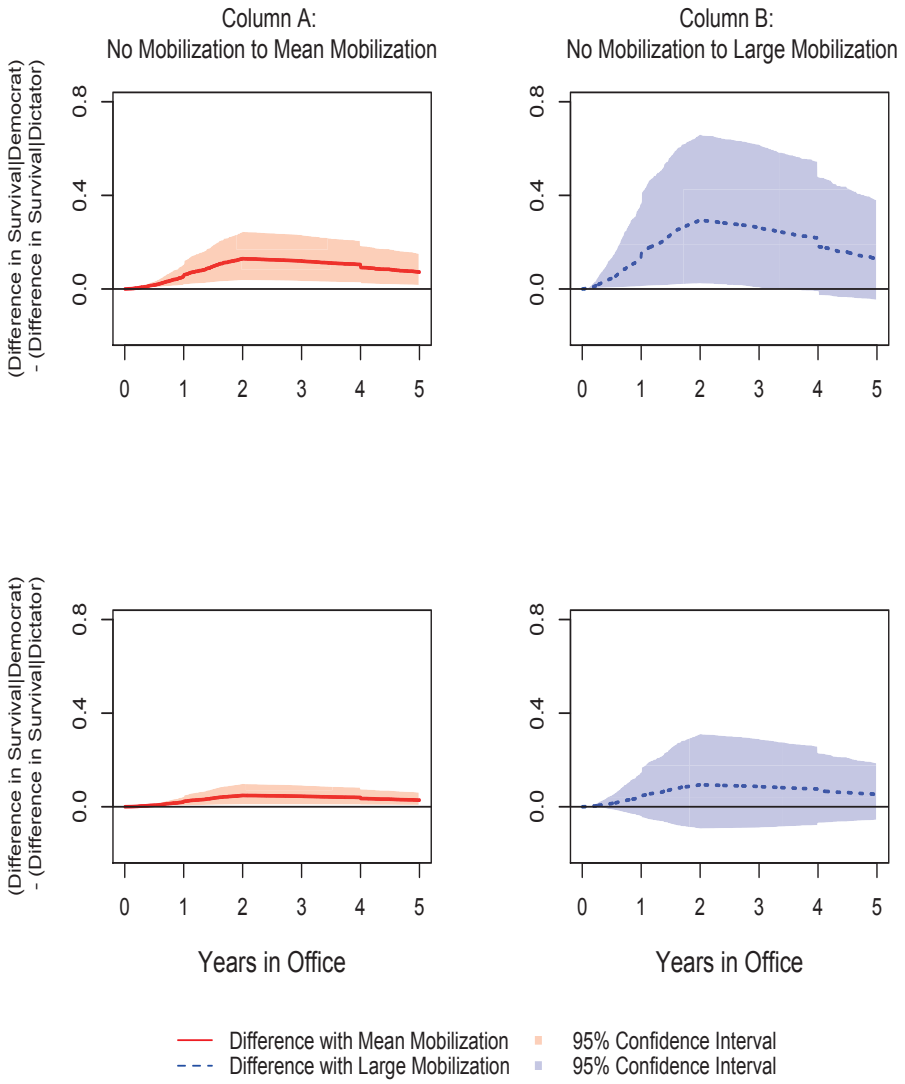

Figure 4: Differences in the Political Cost of Mobilization across Regime Type, 1950-2001. Rows 1 and 2 are based, respectively, on Models 5 and 6 in Table SA-2. *Military Spending* and *Health Care Spending* are measured as percentages of GDP in Model 5 and a state's annual deviation from average spending in Model 6. Models 5 and 6 include a set of interactions among *Democracy*, *Interstate War*, *Military Spending*, and *Health Care Spending*.

probability of a democratic leader and a dictator losing office when the spending variables are measured as deviations from their panel-means (Row 2, Column B).

Two points should be noted before moving forward. First, the results presented in Figures 2 and 4 suggest that, at least at the margins, democratic leaders can mitigate the relative political cost of mobilization by funding higher war-time military spending with a strategy that does not reduce social spending. This follows from the observation that the magnitudes of the difference in the probabilities of leader survival across regime type reported in Figure 4 are generally larger than those reported in Figure 2, which are based on models that do not incorporate *Health Care Spending* into the set of interaction terms used to model war mobilization. For example, when spending is measured as a percentage of GDP, the mean difference across regime type in the probability a leader will complete her fourth year in office is 0.22 when health care spending is explicitly modeled as part of the mobilization process and 0.17 when it is not. Second, the weaker results for a large mobilization in Figure 4 are likely due to the relatively high levels of multicollinearity associated with including the full set of interaction terms among *Democracy*, *Interstate War*, *Military Spending*, and *Health Care Spending*. This inference follows from two observations. First, and as just noted, treating social spending as part of the mobilization process does not weaken the relative effect of war mobilization on the political survival of democrats and dictators. Instead, explicitly incorporating *Health Care Spending* into the set of interaction terms increases the relative effect of mobilization on leader survival across regime type. However, the second observation is that the confidence intervals are substantially larger with the models that analyze social spending as an inherent part of war mobilization. Returning to the example used above, the confidence interval around the predicted difference of a leader remaining in power for four years ranges from -0.01 to 0.54 when *Health Care Spending* is incorporated into the set of interaction terms and 0.06 to 0.32 when it is not. Framed differently, the confidence interval is 112% larger when health care is explicitly modeled as part of the mobilization process. These two observations suggest that multicollinearity from the large number of required interaction terms reduces the statistical significance of the relationships reported in Column B of Figure 4.

My results indicate that, in general, democratic leaders are significantly more likely to lose office than dictators given the increased military spending associated with fighting an interstate war. The next section uses the experiences of Winston Churchill and Joseph Stalin at the end of World War II to illustrate how regime type and war mobilization influenced leader survival

than it is for dictators throughout a leader's tenure.

in two notable instances.

6 The Cases of Winston Churchill and Joseph Stalin

The cases of Winston Churchill and Joseph Stalin are useful for highlighting what my theoretical argument and empirical results can tell us about the relationship between leader survival, regime type, and interstate conflict for four reasons. First, Churchill lost re-election as World War II winded down while Stalin remained in power until his death. Second, both oversaw winning war efforts. Third, Churchill was the leader of a democratic Great Britain while Stalin ruled over the non-democratic Soviet Union. Fourth, Great Britain and the Soviet Union both engaged in significant mobilization efforts during World War II.[25] The British allocated 6.2% of their GDP to military spending in 1938. Annual British military expenditures rose to 38.7% of GDP, on average, during World War II. Further, the British mobilization effort was accompanied by a decrease in the proportion of resources dedicated to health care from 1.74% of GDP to an average of 1.28 throughout the war. While not as extensive as the British efforts, at least relative to total resources, the Soviet Union saw military expenditures increase from 13.4% of GDP in 1938 to an average of 23.3% of GDP during the war.

With these observations in mind, it is unsurprising that Stalin remained in power after World War II. Winning an interstate war reduces the likelihood a dictator will be removed from office (e.g., Chiozza and Goemans 2004) and the results presented above indicate mobilization efforts do not threaten a dictator's political survival. The existing scholarship, though, has trouble explaining why Churchill was removed from office despite successfully leading Great Britain through World War II. While scholars differ on whether democratic incumbents are rewarded with longer tenures for winning wars (see Bueno de Mesquita et al. 2003, Debs and Goemans 2010), no existing research implies that leaders are likely to lose office after winning an interstate war. In contrast, my argument and results indicate that democratic leaders whose states undergo large mobilization efforts, like Churchill, are more likely to be removed from power. To get a sense of how war-time patterns of spending and regime type influenced Churchill's survival

[25] The following military spending statistics are based on expenditure data from Singer, Bremer and Stuckey (1972) and GDP data from (Maddison 2008). Unfortunately, the Gleditsch (2002) data used in the main analyses do not cover the World War II-era. British health care spending data are from Mitchell (2011) and were accessed via `http://www.ukpublicspending.co.uk/`. I was unable to find reliable data on health care spending in the Soviet Union before or during World War II. I use 1938 as the baseline for comparison as it represents the year before Germany invaded Poland.

prospects, I used a set of post-estimation simulations based on Model 1 in Table 1 to calculate the probability of Churchill remaining in office throughout World War II given three scenarios: 1) the observed patterns of British military and health care spending; 2) the British successfully fought World War II without altering their pre-war levels of spending; and 3) the observed patterns of British military and health care spending in a counterfactual, non-democratic Great Britain.[26]

Figure 5 reports the differences in the probability of Churchill maintaining office throughout World War II between Britain's actual mobilization and 1) no economic mobilization for war (red solid line with shaded 95% confidence interval in Panel A) and 2) a non-democratic Great Britain (blue dashed line with shaded 95% confidence interval in Panel B).[27] Recall that the probabilities of survival in two scenarios are significantly different from one another if the confidence interval does not contain the zero-line. Accordingly, Panel A indicates that Churchill's probability of survival was significantly lower given Britain's mobilization than would have been the case if Britain managed to fight the Axis without altering its pre-war spending patterns. Panel B tells us that, holding the observed mobilization effort constant, Churchill was significantly less likely to remain in power than would have been the case if Britain was a non-democracy. Taken together, these results highlight how regime type and Britain's mobilization effort interacted to reduce Churchill's probability of survival upon the conclusion of World War II.

Figure 5 offers statistical support for the claim that Britain's substantial mobilization effort harmed Churchill's prospects for re-election. Qualitative evidence is consistent with this argument as well. Churchill was consumed by defeating the Axis Powers. In his first speech to the House of Commons as Prime Minister, Churchill proclaimed that it would be British policy "to wage war with all our might, with all the strength that God can give us, to wage war against a monstrous tyranny never surpassed in the dark, lamentable catalogue of human crime" with the singular aim of "Victory. Victory at all costs. Victory in spite of all terror. Victory however long and hard the road may be" (Churchill 1940). This single-minded focus motivated the extensive mobilization of the British economy described above, but came at the expense of domestic political considerations. This view is reflected in Conservative MP Cuthbert Headlam's remark in 1944 that, "Never was a party so leaderless as is the Conservative Party

[26]The explanatory variables are set to Britain's observed values during this time period and largely are based on the sources cited in the Research Design section. The exceptions are GDP data for the measure *Military Spending* and *Health Care Spending*, which are drawn from Maddison (2008) and Mitchell (2011), respectively.

[27]The mean predicted probabilities of survival in each of the three scenarios are reported in Figure SA-1 in the Supplementary Appendix.

today" (quoted on page 472 of Ball 2013). While the Conservative Party floundered, Clement Attlee's Labour Party advocated for an expansive social welfare state. Labour proposed that the British government guarantee social insurance, social security, health care, primary and secondary education, housing, and full employment to its citizens and, upon the termination of hostilities, a prompt demobilization of the military (Harris 1982). Churchill agreed in principle that some social reforms should be undertaken, but viewed these proposals as a distraction to the war effort. He felt a hasty demobilization was irresponsible and that the massive expansion

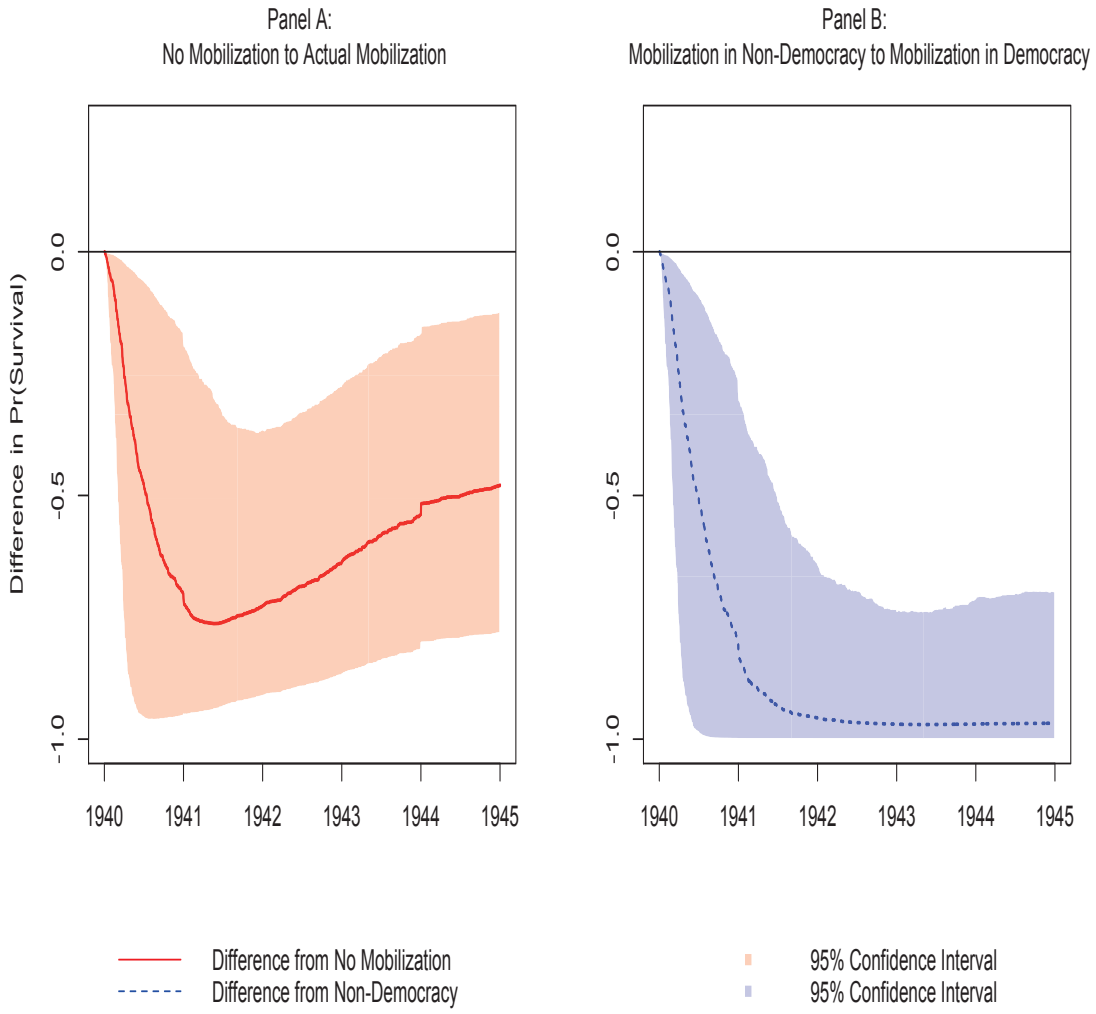

Figure 5: War Mobilization and Differences in the Probability of Winston Churchill Remaining in Office during World War II. Calculations based on Model 1 in Table 1.

of the social welfare state advocated by Labour was too expensive to be implemented, especially as long as Britain was involved in the war (Harris 1982, Ball 2013). Churchill was immensely popular throughout the war, with approval ratings never falling below 78% (Addison 2013). However, the war-weary British public embraced Labour's proposed policies and preferred them over the Conservative Party's platform: a May 1945 Gallup poll found that Labour had a 16 percentage point lead over the Conservatives in terms of intended vote in the July 5th General Election (Courier-Mail 1945). In the end, the man credited with saving his country lost re-election as the British public choose Labour's expansive social welfare state and demobilization over Churchill's personal popularity but unpopular policies.

7 Conclusion

The idea that interstate war is politically costlier for democratic leaders than it is for dictators underlies most of the institutional explanations for variation in conflict behavior across regime type. Therefore, recent research that demonstrates this assumption is not empirically supported (e.g., Chiozza and Goemans 2004) calls into question why scholars have found that democracies are less likely to fight other democracies (Russett and Oneal 2001), more selective in the conflicts they initiate (Clark and Reed 2003), less likely to reciprocate military challenges (Schultz 2001*a*), more likely to fight shorter wars (Bennett and Stam 1998), and more likely to win the wars they fight (Reiter and Stam 2002). My results offer insight in to why conflict processes vary across regime type.

I find that democratic leaders pay a higher political cost for interstate war than do dictators when a war effort is associated with increases in military spending. Filson and Werner (2007) formally demonstrate that a greater sensitivity to the cost of war participation should be associated with lower probabilities of conflict initiation and reciprocation, shorter conflicts, and higher probabilities of victory. My empirical findings provide an explanation for Filson and Werner's theoretical results, with a slight twist. Specifically, my results suggest that differences in conflict behavior across regime type are likely conditional on the size of an expected or observed mobilization effort. If the cost of war participation in and of itself does not vary across regime type (as demonstrated by Chiozza and Goemans 2004), then it is not clear how much variation across regime type we should observe in situations where a war is, or could be, fought without a significant mobilization of economic resources. In contrast, if fighting a war

requires a significant mobilization effort, my results imply that incumbency-valuing democrats and dictators have incentives to behave differently. Thus, the findings presented here suggest variation in the conflict behavior of democracies and non-democracies should be greatest when fighting requires a large mobilization of resources.

My empirical results have at least three other implications. First, and most straightforwardly, they suggest that democratic leaders have an incentive absent among autocrats to try to limit the scope of mobilization. Combined with the observation that dictators are more likely to be punished for losing an interstate war than democratic incumbents (see Debs and Goemans 2010, Chiozza and Goemans 2011), my results imply that war should be associated with larger increases in military spending and cuts in social spending in autocracies than in democracies, at least during the period from 1950 to 2001. This is consistent with the findings of Carter and Palmer (Forthcoming), but not with selectorate theory (Bueno de Mesquita et al. 2004). However, selectorate theory's argument relies on the assumptions that losing an interstate war is costlier for democratic leaders and mobilization is costlier for autocratic leaders. The empirical results of Chiozza and Goemans (2004), Debs and Goemans (2010), and this manuscript demonstrate that these assumptions do not hold. Accordingly, it is unclear why democrats have an incentive to mobilize more resources for war than dictators.

Second, my findings suggest that democratic leaders have a greater incentive than dictators to finance an interstate war effort through some channel other than cutting social spending. As noted earlier, these strategies include but are not limited to borrowing money on the international credit market (Slantchev 2012), raising taxes (Bank, Stark and Thorndike 2008), and inflationary monetary policy (Capella 2013). Given the political and economic unpleasantness associated with raising taxes and inflation and the ability of democracies to access international credit at a cheaper rate than non-democracies (Schultz and Weingast 2003), democratic leaders should be more likely to rely on borrowing to finance a war effort (e.g., Shea Forthcoming).

Third, my results have implications for why democracies are more likely to win the wars they fight than non-democracies (most notably Reiter and Stam 2002). Most explanations for this empirical finding argue that, relative to dictatorships, democracies are more selective about the conflicts they initiate (Clark and Reed 2003), mobilize more of their economic resources during a war (Lake 1992), or are both more selective and try harder to win the wars they fight (Bueno de Mesquita et al. 1999, 2003, 2004). My results suggest that, compared to a non-democratic leader, a democratic incumbent has less of an incentive to try to win a war through a

large mobilization effort and, thus, a greater incentive to avoid interstate wars against relatively strong opponents. Therefore, it is likely the case that democratic success in interstate wars is due to selectivity and not a mobilization advantage.

My results suggest that the political cost of interstate war mobilization is greater for democratic leaders than it is for dictators. This finding offers a theoretical explanation for a number of prominent findings in the interstate conflict literature that, importantly, does not rely on the empirically untenable assumptions that a democratic incumbent is more likely to lose office than an autocratic leader for participating in or losing an interstate war. My findings also imply that whether democracies and dictatorships pursue different strategies with respect to crisis bargaining and interstate war is likely conditional on the need to mobilize if *ex ante* bargaining fails and fighting requires a significant mobilization of resources. The results presented here therefore suggest that explicitly considering the political cost of mobilization holds promise for improving our understanding of interstate conflict processes.

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