

I Want You! The Determinants of Military Conscription

Victor Asal

University at Albany, SUNY

Justin Conrad

University of North Carolina at Charlotte

Nathan Toronto

National Defense University, UAE

ABSTRACT

What explains the use of military conscription? Using a new dataset of more than 100 countries over a period of 200 years, we examine the determinants of a state's decision to implement a military draft. We argue that the decision to use conscription is largely dependent on historical factors. Specifically, we contend that former British colonies are less likely to use conscription as a means of military recruitment because of an anti-conscription precedent set during the English Civil War. We find that former British colonies are far less likely to opt for conscription, even after controlling for counter arguments relating to a state's colonial legacy. We also examine a number of existing explanations for the use of conscripts, using the data to arbitrate previous debates. We find that democracies are less likely to implement the draft, while states involved in an interstate war or interstate rivalry are more likely to do so.

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Why do some states conscript their soldiers, while others recruit volunteers to fight in the military? This question is central to understanding how the state relates to society, and it has produced a wealth of literature (Cohen 1985; Levi 1997; Haltiner 1998; Avant 2000; Irondelle 2003; Leander 2004; Mulligan and Shleifer 2005; Vasquez 2005; Edmunds 2006; Gilroy and Williams 2006). Even in states where volunteer military recruitment is firmly entrenched, such as the United States, merely mentioning the draft is likely to stir up vociferous debate (Morris 1982; Lee and McKenzie 1992; Rangel 2003; Caverley 2010). To our knowledge, however, no long-term, cross-national analysis of the determinants of conscription has been conducted.¹ This has made it impossible to examine important changes in conscription in the nineteenth and twentieth centuries, from the rise of the mass army during the French Revolutionary period and during the World Wars (Nickerson 1942), to the decline in conscription since then (Horeman and Stolwijk 1998).

While previous statistical studies have examined the precipitous decline in conscription since the end of the Cold War (Haltiner 1998), or have conducted in-depth investigations of conscription in a few countries (Levi 1997), examining the longer-term trends across all countries may improve our understanding of this very important phenomenon. This would be especially important if conscription makes a comeback. After World War II, and particularly since the end of the Cold War, more and more countries abandoned conscription in favor of smaller, volunteer forces. Today, most military forces are composed almost entirely of

¹ There have been statistical studies of conscription (Mulligan and Shleifer 2005; Feldmann 2009; Adam 2012), but these have generally only used three or four years' of conscription data, and only from the late Cold War forward.

volunteers, but states in the Arabian Gulf have recently instituted conscription laws (Toumi 2011; Salem 2014; al-Maena 2014), suggesting that conscription is not yet dead. Using newly developed data (Toronto 2007), we evaluate the determinants of conscription with a sample of more than 100 countries over a period of 200 years. This approach allows us to provide substantial evidence regarding the effects of various state-level characteristics on the probability that a state uses conscription, as well as the relative impact of these characteristics.

Our primary argument is that the decision to use conscription is largely dependent on historical experience. Specifically, we contend that former British colonies are less likely to use conscription as a means of military recruitment because of an anti-conscription precedent set during the English Civil War. This precedent defined state power and individual rights in the English context, and England passed it on to its many colonies through the institutions of colonial governance. The results confirm our expectations about the influence of history on such decisions. We find that former British colonies are far less likely to use conscripts, even after controlling for counter arguments relating to a state's colonial legacy. Additionally, we examine a number of hypotheses from earlier debates over the determinants of conscription, using the extensive data to help arbitrate the disputes. We find that being a democracy is negatively associated with the use of conscripts, while being involved in an interstate war or interstate rivalry is positively associated with the use of conscripts. And while the level of militarization increases the probability of conscription, the level of economic development does not seem to be correlated with conscription at all.

In the next section, we review existing analyses of states' decisions to implement military drafts. We then describe why the use of conscription is so heavily dependent on historical experience, and we develop a series of testable hypotheses regarding the determinants of military

conscription. Next, we describe the new dataset on military recruitment strategies, as well as how we test our hypotheses. Finally, we present the empirical results of our analysis and conclude with some thoughts and suggestions for future research.

Institutions, Economics and Threats

Conscription scholars have argued that democracy, security, and economic development contribute to whether a state chooses to use conscripts or not. We define conscription as any policy which relies on the threat or use of force to recruit members into the military.² To date, the literature on conscription has not arrived at a consensus on which factors influence conscription choices or on the relative impact of these factors, so we examine several of these arguments below.

Democracy. Arguments connecting democracy and conscription began at the time of Immanuel Kant, who argued that, since republics would expand the franchise in return for citizens' military service, they would tend to recruit militias as opposed to standing armies (Kubik 2001, 99). Standing armies would eventually be abolished as a result, since the costs that result from maintaining a standing army "eventually make peace more oppressive than a short war" (Kant 1795, 108). Horowitz and Levendusky (2011) substantiate this argument when they find, using an experimental design based on polling data, that conscription decreases mass support for war. According to Kant, democracies (or republics) would be more likely to use a form of military recruitment that distributes the burdens of service widely. Even though norms of military

²Throughout the paper we use the terms "conscription" and "draft" interchangeably.

professionalism have developed to insulate societies from the true costs of war—whether the military recruits conscripts or volunteers—the conscript armies of today are closest to the militias that Kant envisions (Kubik 2001). From this perspective, then, Kant would expect democracies to be more likely to employ the draft.

Some recent scholarship seems to counter Kant's view of the relationship between democracy and conscription. Doyle (1986) provides the modern version of Kant's argument—a liberal peace—but sees the development of liberal imperialism. This relates to conscription insofar as liberal states envision a unique relationship between the citizen and the state, and—by implication—would find it more difficult politically to send conscripts rather than volunteers on expeditionary adventures overseas. In this view, democracies with expeditionary ambitions would be less likely to use the draft. More directly, Poutvaara and Wagener (2011) argue that conscription is economically inefficient and inconsistent with many democratic values, and will likely be fully abolished with time, and Dandeker (1994), Segal (1994), Levi (1997, 33–41), and Flynn (2002, 3) see a general reluctance among citizens of democracies to acquiesce in conscription (see also Inglehart 1997; Haltiner 1998; Cottey, Edmunds, and Forster 2002; Caverley 2010; Vasquez 2011; Adam 2012; Forster 2012).³ In a related vein, Horowitz, Simpson, and Stam (2011) observe that democratic countries with volunteer armies are especially sensitive to casualties, which could also indicate that democracy and conscription do not mix.

Decision-makers and military practitioners also see democracy as reducing the likelihood of conscription. Former U.S. Undersecretary Secretary of Defense Paul Wolfowitz (2003) linked

³ It should be noted that Frederick Engels (1895) did not view universal conscription as antithetical to democracy. In fact, he argued, that it was a necessary outcome for a truly democratic, egalitarian society.

the compensation of volunteers with their careful use, and U.S. Army Lieutenant Colonel Paul Yingling (2010) advocated reinstating the draft so that the American people and Congress would witness the true costs of the nation's wars. These arguments by both practitioners and scholars tend to counter Kant's view; they hold that democracy reduces the propensity towards conscription.

Where these scholars and practitioners view democracy as stifling the propensity for conscription, others—fewer in number—see a positive relationship, or no relationship at all. In Finland and France, for example, democracy and conscription have actually reinforced one another (Phillips 1991; Forrest 2002). Irondelle (2003) finds that there were path dependencies in France that explained the persistence of conscription. Comparing the end of conscription in France with the reform of conscription in Sweden, Leander (2004) finds that the key determinant of the fate of conscription is the myths upon which it is based. If these myths are flexible enough to “re-enchant” conscription, as in the Swedish case but not the French case, then conscription is more likely to persist. Conscription, then, “cannot be written off” (593).

At the same time, other scholars see no relationship between democracy and conscription. Pfaffenzeller (2010, 491) argues that there is “no strong evidence of a functional linkage between conscription and democracy,” but this is based on an analysis of only 63 countries, and only of conscription in 2006, not a country-year analysis over 200 years, as this study provides. In an analysis of 88 countries, 1985–96, Mulligan and Shleifer (2005, 85) find that “conscription does not seem to be influenced by democracy.” In a larger sample of countries, and over a longer period of time, it is possible that the majority opinion of the democracy school (that democracies are less likely to conscript) will hold, so we test the following hypothesis:

H1: The more democratic a country is, the less likely it is to impose the draft.

Economic Development. Related to the idea that democracy has a suppressive effect on conscription, other scholarship suggests that economic development has a similar effect. In *The Wealth of Nations*, Adam Smith (1776, Part 5, Ch. 1) suggested that only highly-specialized, long-term service volunteers are sophisticated enough to defend advanced industrial societies. In the debate over ending the draft in the United States, Milton Friedman (2008) echoed this view, arguing that “a draft would be both unfair and unnecessary.” Many economists since have argued against the draft (Anderson 1982; Duindam 1999; Jehn 2008; Lifshitz 2010). The main idea is that, other things equal, volunteer military recruitment allocates labor in the most efficient way possible. Since highly developed economies have a much more diversified pool of human capital than less developed economies, the need for an efficient allocation of labor is correspondingly greater in the former. So, highly developed economies are more likely to use volunteers, not conscripts.

Research into conscription suggests that this could be true. Using a cross-section of 78 countries in 1983, Ross (1994) finds that volunteer systems generally allocate labor more efficiently, and others have argued that conscription has been hard to maintain in advanced industrial societies (Harries-Jenkins 1982; Higgs 1999). In addition, some scholars argue that a shift to free markets and capital-intensive militaries leads to a “capitalist peace” (Gartzke and Hewitt 2010). This shift towards capital-intensive militaries might also suggest a negative

relationship between economic development and conscription, which is labor-intensive. Given this, we also test Hypothesis 2:

H2: The more economically developed a country is, the less likely it is to impose the draft.

Security Threats. The foundation for understanding modern conscription is the *levée en masse* that France imposed on its citizens in 1793; its imposition can be traced directly to “the mounting threats of a five-front war and rebellion at home” (Wolloch 1986, 103). This reading of the imposition of conscription, as a reaction to threats both external and internal, is one that is echoed widely in the literature (Cohen 1985; Posen 1995, 138; Konstantinidis 2011), even if some see this as an excuse for rulers to impose conscription (Pfaffenzeller 2010, 482). Indeed, French success led other countries to impose conscription out of fear, with perhaps the most important example being Prussia (van Creveld 1999).

Prussia’s imposition of conscription was in direct response to the horrors of losing to Napoleon in 1806 and was extended to the middle class and educated (van Creveld 1999, 247; see also Hui 2005, 146). After Prussia’s success in the Franco-Prussian War, “one country after another did away with its antiquated military system and introduced universal conscription of the male population” (van Creveld 1999, 252). In Latin America, Brazil adopted limited conscription after its painful war with Paraguay in the 1860s (Beattie 2001, 6), and in post-World War II Germany, Roman Herzog, a former president of the Federal Republic, argued: “The military

service obligation is such a profound restriction of a young citizen's individual liberty that a democratic state under the rule of law may only demand it if the state's external security really requires it" (Pfaffenzeller 2010, 482–3).

In two modern cases, Iran and Israel, threat seems to have motivated conscription. During the Iran–Iraq War, Iran dramatically expanded conscription, actively drafting many more Shia and Kurds into the military, though many Kurds resisted (Sherzad 2000; Karsh 2002, 69). In Israel, as in other countries (Beattie 2001, 212), politicians have justified conscription during peacetime. Merom (2003, 169) argues that the almost universal conscription of Jewish males and the overwhelming militarization of Israeli society is a direct “result of external threats.”

This threat argument is not restricted to interstate conflicts. For example, the American Civil War led to the imposition of conscription in the North as the war dragged on, and later in the South as leaders of the Confederacy became desperate (Geary 1986; Beringer, Jones, and Still Jr. 1991). The Bolsheviks also turned to conscription when faced with a brutal civil war in Russia in 1918 (Mawdsley 2007, 63; see also Kenez 1977, 13), as did the KMT Government in China in 1945, in the face of a Communist insurgency (Pepper 1999).

Finally, Horowitz, et. al. (2011, 930) find that “most states try to optimize prior to a war using the recruitment system they already have rather than switching systems.” In their analysis, states rarely initiate or end conscription in the 10 year period prior to a major war. This suggests that long-term threat dynamics, such as those characteristic of an ongoing interstate rivalry, may be the most significant type of threat influencing the decision to use conscription. These points suggest that military threats, either external or internal, should encourage states to impose the draft:

H3: Countries involved in an interstate war or an interstate rivalry will be more likely to impose the draft than countries not involved in a war or rivalry.

H4: Countries involved in an intrastate war will be more likely to impose the draft than countries not involved in an intrastate war.

Militarization. While a security threat argument emphasizes the self-defense logic of conscription, there are many who argue that the draft is tied more strongly to an aggressive, expansionist foreign policy. Pfaffenzeller (2010, 488), for example, argues that conscription marks the “dawn of total war.” Merom (2003, 67) argues that nationalism empowered rulers to justify conscription, which was essential to be internationally competitive “in the age of mass conscription.” Wolloch (1986, 101) and Stephan and Baker (2006, 73) argue that conscription was key in empowering Napoleon to compete. It did so because “the *levée en masse* soon revolutionized the character of international competition by facilitating significant reduction of war costs, drastic expansion of army strength, and dramatic improvement of fighting capability” (Hui 2005, 128). Others have tied conscription to a state militarizing for expansion, as in the case of Japan (van Creveld 1999, 323), and being more interventionist (Beukema 1982) because it strengthens military capability.

Choi and James (2003) provide empirical evidence linking conscription and a higher likelihood of international violence in their study of militarized interstate disputes (MIDs). They

point out that “the idea of a conscripted military force as a potential cause of international conflict is equally present in the literature.” For example, Russett and Oneal (2001, 19) cite how Napoleon Bonaparte’s “nationalist army” emerged as a threat to achieve European hegemony. Thus, conscripting soldiers would seem to run against the logic of the democratic peace in that it appears to lead to international conflict (Choi and James 2003, 799–800). Choi and James (2003, 798) support this argument when they find that “the most obvious among the neglected preliminary articles from Kant—military manpower system—is indeed connected significantly to involvement in militarized interstate disputes (MIDs) from 1886 to 1992.” Examining states from 1946 to 2001, Pickering (2011) finds a similar relationship between both “regular” military episodes as well as “operations other than war” (OOTWs). Interestingly, Pickering finds that conscription has the largest impact on OOTW related to attacking rebels and terrorists. The corollary of this argument linking the draft and militarization in society is that doing away with the draft is associated with more pacifistic attitudes in a country.

We should note, however, that some argue that conscription should make a country less militaristic and less willing to engage in a war to the bitter end. According to this reasoning, the larger the proportion of the population in the armed services, the less willing the population will be to pay a high price to win a war unless the war being fought is existential (Merom 2003). “When the population has broad representation in the armed forces, citizens in a republic will, in Kant’s words, be ‘very cautious’ about using military force for fear of ‘decreeing for themselves all of the calamities of war’” (Pickering 2011, 7). This argument suggests that conscription should actually be related to a reduced willingness to use force in the first place (Horowitz and Levendusky 2011). Even so, we believe that the evidence strongly suggests that conscription will

be associated with more militaristic, and militarizing, societies. Thus we test the following hypothesis:

H5: Countries with higher levels of militarization will be more likely to impose the draft than countries with lower levels of militarization.

The British Colony Hypothesis

In addition to these five hypotheses drawn from previous debates on conscription, we contend that the decision to use the draft is primarily dependent on historical experience. Since a state's willingness to use military conscription is indicative of its conceptualization of the relationship between personal freedoms and state power, we suggest that the decision is influenced less by immediate circumstances (such as war and economic performance), and more by the state's overall philosophy of the role of the military in society. Such a philosophy tends to be passed down from generation to generation within a country, and, as in the case of Great Britain, from colonial power to colonial possession.

While there has been limited research into the links between conscription and colonial heritage, scholars have observed a unique Anglo-Saxon tradition when it comes to conscription. John Keegan's *World Armies* (1983) indicates that volunteer military recruitment is prevalent amongst former British colonies, and Levi (1997, 12) observes that "[the US, UK, Australia, Canada, and New Zealand] share a government ideology that makes conscription for a national military the exception rather than the rule." This distinction is not merely one of being a democracy, either; Flynn (2002, 3) sees "a basic division between the Anglo-Saxon concept of

military service, shared by the United States and Britain, and the continental or French idea.” For the French, there was no conflict between conscription and liberty, but for the British tradition there was.

This British approach to conscription seems to date from the English Civil War (1642–51). Prior to the Civil War, English military recruitment was similar to that on the continent (Hill 1973; Russell 1973), but Charles I ascended the throne in 1625 and began using levies in “ambitious foreign adventures” (Hill 1973, 71). This was a source of opposition to the crown during the Civil War, and when Oliver Cromwell used standing armies for internal repression after the Civil War, the English polity developed a distaste for standing armies (Keegan 1983, 606; Flynn 2002, 12). Ultimately, this grew into liberty from conscription for those with the franchise (Enloe 1980, 21; Hill 1970, 1972, 1980). This set an important precedent for the relationship between state power and individual rights, so that being English released a subject from a military obligation to the crown. This British tradition against conscription endured well into the nineteenth century (Hayes 1949; Harries-Jenkins 1977; Spiers 1980), and eventually led to severe manpower shortages during World War I (Beckett 1985; Keegan 1985; Grievies 1988). This long, robust British tradition against conscription—on the basis of individual liberty—explains why Britain adopted it as late and as half-heartedly as it did, relative to the continental powers.

This does not explain, however, how the aversion against conscription passed from Britain to its colonial dependencies. While they focus on economic prosperity, corruption, and democratic stability instead of conscription, there are two schools of thought on how colonies inherit colonial practices. The exogenous school sees British colonial governance practices as directly responsible for later prosperity and democracy. The argument is that the British pattern

of indirect rule—as opposed to the French pattern of direct, hierarchical rule—empowered local leadership and, eventually, strengthened civil society and respect for the rule of law (Landes 1998; Ferguson 2002). For example, North, Summerhill, and Weingast (2000) argue that British colonial administration reinforced property rights and led to better economic growth in the post-independence period. Bernhard, Reenock, and Nordstrom (2004) note that British colonies had a better chance of developing strong civil societies and of achieving stable democracy. Triesman (2000, 403) finds that British colonists’ “almost obsessive focus on the *procedural* aspects of law” contributed to less post-independence corruption. In sum, the exogenous school of colonial heritage would maintain that former British colonies are less likely to employ conscription because British governance reinforced civil society and institutions to defend individual liberty from state incursion.

The endogenous school of colonial heritage, on the other hand, maintains that patterns of colonial administration were based more on local conditions than on the identity of the colonizer. This school tends to attribute the superior performance of former British colonies to the strength of the Royal Navy and the ability of British colonizers to choose the most promising locations to colonize (Frankema and Waijenburg 2013, 6). Acemoglu, Johnson, and Robinson (2000) argue that settler mortality affected the institutions developed as part of the colonizing strategy; where environments were unyielding, resulting in high settler mortality, the colonizing strategy was extractive, as in the Belgian colony in the Congo. However, when European settlers were able to remain and live relatively comfortably, they tended to set up “neo-Europes,” and the institutions they set up endured after independence, leading to superior economic performance. Interestingly, their results are independent of colonizer identity—some French colonizing strategies were neo-European, and some British strategies were extractive (see also Sokoloff and Engerman 2000;

Engerman and Sokoloff 2005; Bolt and Bezemer 2009; Frankema and Waijenburg 2013). When it comes to conscription, this endogenous school of thought would expect decisions about conscription to be inherited independent of colonizer identity, so controlling for endogenous conditions—such as settler mortality—should wash away the effects of British colonial heritage on conscription choices.

We are more convinced by the exogenous school of colonial heritage. Colonizer identity matters for conscription choices for three reasons. First, military manpower policy is the least likely policy area to be influenced by local conditions, as it involves the devolution of authority over coercive violence and the power to generate revenue, which can affect the colonizer's reason for colonizing in the first place. Second, anecdotal evidence suggests that even in British colonies with a more extractive strategy (e.g., in the Caribbean and the Gold Coast), volunteer military recruitment has endured since independence. British attitudes towards conscription were also strong in former colonies from India to Australia (Heathcote 1975; Robson 1982). Third, both the exogenous and endogenous schools of colonial heritage concede that colonial institutions largely persist after independence, given that they are costly to set up in the first place and because a native elite coalition usually had incentives to perpetuate them (Acemoglu et al. 2000, 6–13, 20; Treisman 2000, 403; Bolt and Bezemer 2009). Charles Tilly (1985, 186) argues that this is especially likely to occur when “outside states continue to supply military goods and expertise in return for commodities, military alliance or both,” as often occurred in the post-colonial period.

While we are more convinced of the exogenous school, we nonetheless run robustness checks below using Acemoglu et al.'s settler mortality data, to see if colonizing strategy also has an influence on conscription choices. We further analyze the role of French colonial origin to

examine if British colonization, in particular, is a key determinant of conscription decisions. This leads to our final hypothesis:

H6: Current and former British colonies are less likely to impose the draft than countries that were never British colonies.

Research Design

The unit of analysis for our study is the country year. To construct the dependent variable in each of our hypotheses, military conscription, we use the Military Recruitment Data Set (Toronto 2007). The dataset provides information on the military recruitment methods of all countries during the entire temporal domain of this study (1816–2000). A state is considered to engage in conscription in a given year if the use or threat of force is the primary mechanism through which individuals are inducted into the military. This may include legal or “extra-legal” conscription, such as impressment. In other words, any method of recruitment “where individuals cannot realistically say ‘no’ to military service” is considered to be conscription (Toronto 2007, 3).⁴ In states where military service is purely voluntary, individuals join “as a matter of choice.” We reverse the original coding scheme so that our dependent variable is binary, with a ‘1’ indicating that the primary means of military recruitment for the state in that year is conscription. A ‘0’ indicates that the military services of the country are staffed mainly by volunteers. In the data,

⁴ States that allow conscientious objection may still be considered to engage in conscription as long as it is still the primary means of recruitment (Toronto 2007).

conscription years are much more common than volunteer years, with more than 60 percent of observations coded as conscription, and less than 40 percent as volunteer.⁵

To account for the effect of domestic political institutions on the decision to use conscription, we include two distinct measures of *Democracy*. The first measure, drawn from the Polity IV project, scores all states on a scale from -10 to 10 (Marshall and Jaggers 2010). The lowest scores indicate states with strong autocratic institutions, while the highest scores indicate strong democratic institutions. The scale is based on several criteria, including the level of constraints on the chief executive and the level of competitiveness of political participation (Marshall and Jaggers 2010, 15). We expect the democratic nature of a state's institutions to influence conscription, but we also believe that the extent of the franchise is an important determinant. We therefore use a second measure of democracy, which identifies democracies in part based on whether they offer suffrage to a majority of the adult male population. The more extensive the franchise, and the wider the direct costs of conscription are borne, the more likely a democratic public would be to hold leaders accountable for decisions involving conscripts. The measure comes from a dataset developed by Boix, Miller, and Rosato (2012) and identifies democracies based on three criteria. First, the chief executive must be "directly or indirectly elected in popular elections and is responsible either directly to voters or to a legislature" (Boix et al. 2012, 9). Second, the legislature must be elected through a free and fair electoral process. And finally, a majority of adult males must have the right to vote. The final measure is dichotomous and equals '1' if the country meets all three criteria in a given year, and '0' otherwise.

⁵ Conscription is even more prevalent prior to World War I, accounting for nearly 80% of observations through 1913. We account for potential temporal effects in the sensitivity analysis, where we drop the pre-WWI, post WWII, and interwar periods from our analysis.

We also expect that a nation's overall level of economic development should impact its proclivity to use the draft. Specifically, we expect that more developed nations will have less of a need to force military service on its citizens, and will instead rely on incentives to attract volunteers. Given that we are analyzing a period of time over two centuries, comparable and reliable economic measures are notoriously lacking. As an alternative, we use data on states' energy consumption and total population from the Correlates of War (COW) project (Singer, Bremer, and Stuckey 1972), and we construct a measure of *Energy Per Capita*. This measure is used as a proxy for the economic development level of each country. In doing so we follow the lead of a large number of scholars who have analyzed economic development over a similar time span (Singer, Bremer, and Stuckey 1972).⁶

We also account for threats currently faced by the state, either through the occurrence of *Interstate War*, *Intrastate War*, or *Interstate Rivalry*. A long line of research demonstrates that interstate threats often lead to buildups in military capabilities, as well as increases in military resource allocations (Richardson 1960; Ostrom 1978; Collier and Hoeffler 2002; Nordhaus, Oneal, and Russett 2012). Similarly, we expect that states involved in interstate wars, interstate rivalries or intrastate wars will be more likely to use conscription as way to quickly increase their own capabilities. The variables for *Interstate War* and *Intrastate War* are constructed using data on such conflicts from the COW project (Sarkees and Wayman 2010).⁷ The variable for

⁶ See for example Boehmer, and Sobek (2005) and Chiozza and Goemans. (2003).

⁷ Interstate wars are defined as conflicts between states that involve organized armed forces and result in 1,000 or more battle deaths within a 12 month period. Intrastate wars must meet the same criteria, but are limited to those conflicts which "predominantly take place within the recognized territory of a state" (Sarkees and Wayman 2010).

Interstate Rivalry is constructed with data developed by Thompson (2001).⁸ The final variables equal ‘1’ if the state is involved in that type of conflict in a given year, and ‘0’ otherwise.⁹

We also hypothesize that high levels of militarization will be associated with the decision to institute conscription. To identify the changes in militarization levels on the decision to impose the draft, we include a measure of each state’s annual military burden level. This variable, *Military Spending/GDP*, is a state’s total annual military expenditures as a percentage of its Gross Domestic Product (GDP).¹⁰ We also analyzed models using other proxies for the level of militarization, including major power status and the level of military technology adoption.

Finally, the key independent variable *British Colony* comes from data developed by Teorell and Hadenius (2005). Teorell and Hadenius identify all instances of colonization of non-Western territories by Western nation-states. From this classification scheme, we isolate all countries that were former British colonies. A country is therefore coded as a ‘1’ in the year it was colonized by the British, as well as a ‘1’ for every subsequent year. A ‘0’ indicates that the country is not a British colony in that year, nor has it ever been a British colony.¹¹ Hypothesis 6

⁸ Interstate rivalries occur when one state perpetually perceives another state as an enemy (Thompson 2001).

⁹ We also estimate our models by collapsing the *Interstate Rivalry* and *Interstate War* variables into a single measure. We did so in order to account for the possibility that the separate measures may be underestimating the effect of a broader category of international threats on conscription. The results using this single dummy variable are nearly identical to those reported here, and they are available in the online appendix.

¹⁰ Because data on military expenditures and GDP are notoriously problematic, including this measure dramatically reduces our sample size, so we do not include it in all of the models presented below. We also ran robustness checks using other proxies for militarization levels, including major power status and the level of military technology adoption. Major power status was generally unassociated with conscription decisions, while military technology adoption positively influences conscription like military expenditures in general.

¹¹ One concern with this variable is potential collinearity with our measures of democracy and *Energy Per Capita*. However, the correlations with both measures of democracy are .01 or less, and the correlation with *Energy Per Capita* is .19. We therefore have sufficient evidence to suggest that these variables are capturing distinct concepts.

expects that the experience of British colonialism will have a negative effect on the likelihood that a state uses military conscription.¹²

Since our dependent variable is dichotomous and our data is in time series cross-sectional format, we conduct a discrete time duration analysis using logistic regression (Beck, Katz and Tucker 1998). However, in the presence of serial correlation, logistic regression can severely underestimate standard errors (Beck and Katz 1997), so we estimate robust standard errors. To explicitly control for temporal dependence we include a count of the number of years that a state has continuously relied on volunteers to staff its military services (*Volunteer Years*). We also include squared and cubed transformations of this count variable, as the cubic polynomial approximation is among the most reliable ways to model temporal dependence (Carter and Signorino 2010). Finally, we lag all of our independent variables by one time period to account for possible endogeneity.

Empirical Analysis

Table 1 displays the results from a series of logistic regressions examining the determinants of military conscription. Each of the three models includes data for all countries during the years 1816–2000. The results demonstrate that both the Polity IV measure of democracy, as well as the Boix et al. (2012) measure (which includes male suffrage as a criterion to be categorized as a

¹²Following Teorell and Hadenius (2005) and Bernhard, Reenock, and Nordstrom (2004), we do not code the “British settler colonies” as British colonies. These countries (U.S., Canada, Australia, Israel, and New Zealand) are thought to closely resemble the “developmental and cultural heritage” of the U.K., making them more direct extensions of the original. Nonetheless, we used an alternate coding of the British colony variable, including these countries, and our results (available in the online appendix) are comparable to those presented below. The experience of British colonialism is therefore a key influencer of the decision to use conscription, regardless of the definition used for British colonies.

democracy) have significant and negative effects on the probability that a country uses the draft. Further, there does not seem to be much of a substantive difference between effects of the two measures. In Model 1, holding all other variables constant at their means, the most democratic state on the Polity scale (a score of '10') is around 12 percentage points less likely to use conscription than the most autocratic state (a score of '-10'), and 2 percentage points less likely than the least democratic state (a score of '7'). And democracies are around 11 percentage points less likely to engage in conscription than autocracies when using the Boix et al. classification.¹³ We also find strong support for Hypothesis 5 in Model 3. In that model, we include a country's military spending as a percentage of GDP and find that a higher level of military burden increases the probability of conscription.

Most of the other variables influence conscription as hypothesized, with one notable exception. Energy consumption per capita is never significant in any of the models, indicating that at least this measure of economic development is not associated with a change in the probability of conscription. States that are involved in an interstate war or an interstate rivalry, however, are significantly more likely to use a military draft. Notably, intrastate war negatively influences the probability of a draft (contrary to our expectations). One explanation for this finding may be that during intrastate wars, governments might be less able to institute a draft. The presence of civil conflict indicates a lack of capacity or control by the state, at least over certain segments of the population. States involved in intrastate wars, therefore, might be less able to use conscription as a means of military recruitment. Further, Peled (1998) notes that there are greater concerns about the loyalty of military personnel in multi-ethnic societies, concerns that are likely to be exacerbated during an intrastate war.

¹³ These effects are calculated based on the results from Models 1 and 2.

As expected, a history of British colonialism has a strong negative influence on the likelihood that a state uses conscription. On average, being a current or former British colony decreases the probability of a draft by 29 percentage points.¹⁴ The marginal effect of being a British colony is comparable to the effect of involvement in an interstate war.¹⁵ This effect is consistent across all three model specifications in Table 1, and conforms to the expectations of Hypothesis 6. To further examine whether British colonialism specifically is driving this effect, in Table 2 we include additional measures of a state's colonial history. We first include a measure of settler mortality rates for former colonies provided by Acemoglu, et al. (2001). This variable is the average yearly deaths per 1,000 settlers during a country's colonial period. Acemoglu, et al. argued that in colonies where settler mortality rates were particularly high, colonial officials were likely to set up extractive economic and political institutions. Where the mortality rate was lower, officials were likely to establish more robust institutions. Such differences in colonial institutional history, if correlated with British colonization efforts, might render our key relationship spurious. In other words, the variable is included to determine whether colonizer identity (the exogenous school) or colonizing strategy (the endogenous school) has a greater effect on post-independence conscription choices. If coefficients for this variable are significant and coefficients for the colonizer identity variables lose significance, then it would indicate that the logic behind Hypothesis 6 is flawed and that conscription choices have more to do with colonizing strategy rather than the specific colonizer. We also include a variable indicating whether the country was ever a French colony (Teorell and Hadenius 2005). This measure therefore captures the colonial legacy most often compared to, and contrasted with, the British colonial experience.

¹⁴ This effect is calculated using the results from Model 3.

¹⁵ Being involved in an interstate war increases the probability of conscription by around 40 percentage points.

As the results in Table 2 indicate, *British Colony* continues to have a highly significant and negative influence on the decision to use conscription. This effect is independent of the settler mortality rate (which is insignificantly associated with conscription), providing evidence against the endogenous school of thought. Further, *French Colony* status is also insignificant across all models, suggesting that the colonial effects are indeed exogenous, and they are specifically a legacy of British colonialism.¹⁶ While the temporal and spatial period of the additional data limits the sample size, the results nonetheless provide supplementary evidence in favor of Hypothesis 6. In these analyses, however, it should be noted that neither of the war variables is significant any longer. Democracy and interstate rivalry, however, continue to have robust effects on conscription.

While the main results presented in Tables 1 and 2 are largely supportive of our theoretical expectations, we conduct additional analyses to determine if these results are sensitive to either the temporal period under consideration or alternative methodological approaches. First, in Table 3, we examine if our main results are an artifact of patterns that may have developed between World War I and World War II. In particular, we are interested in the possibility that this period may have been an outlier for global military conscription. Due to the unusual manpower requirements of militaries during this time period, as well as the rise of nationalist sentiments in which military service came to be seen as a duty or obligation in many societies, it is reasonable to believe that the years 1914–1945 were not representative of typical conscription patterns. Further, if the need for additional manpower or the prevalence of nationalism was systematically different in countries that experienced British colonialism, then our previous

¹⁶ The insignificant coefficient for *French Colony* indicates that former French colonies are no different from colonies of other European powers in terms of conscription. Former British colonies, however, are less likely than French *and* all other colonies to use conscription.

results may be biased. We therefore re-estimate our main set of models, but drop these years out of the sample. As Table 3 indicates, the main conclusions do not change. Military spending is once again positively associated with conscription, while British colonialism and democracy are negative predictors of conscription.¹⁷

Finally, we consider the possibility that the decision to institute a draft is driven more by country-specific factors than by the systematic processes which we have hypothesized. In Table 4, we re-estimate the models from Table 1, this time including random effects.¹⁸ Once again, our main expectations find support, as *British Colony*, *Democracy*, *Interstate Rivalry* and *Military Spending* all continue to significantly influence the probability of military conscription in the hypothesized directions. Interestingly, *Intrastate War* is now only significant in one of the models, but unlike previously, it is significant and positive. Also, *Energy Per Capita* is significant and negative in one model. These two variables, however, are insignificant in a majority of the models so no firm conclusions can be drawn based on these results.

Assessing Model Fit

Taking stock of our analysis, we end with an assessment of the predictive capacity of our main models. Figure 1 shows a measure of model fit, the Receiver Operating Characteristic (ROC) curve, for Model 1. Points on the ROC curve illustrate the tradeoff between the probability of correctly predicting military conscription (the x-axis) and the probability of

¹⁷In additional tests, we drop the United States, United Kingdom and Israel from our analyses, as they are outliers in terms of frequency of conflict participation and with regards to many of our independent variables. Again, the results are comparable to those reported here and are available in the online appendix.

¹⁸Random effects are estimated specifically because our key variable of interest (*British Colony*) is largely time-invariant and exhibits near-perfect collinearity with the unit (country) effects. In such cases, fixed effects models are likely to dramatically bias estimates of the independent variable's effect on the dependent variable. Random effects, on the other hand, do not suffer from such limitations (Clark and Linzer 2012). In fact, when estimating fixed effects models, the *British Colony* variable drops out of the analysis entirely.

correctly predicting the absence of conscription (the y-axis). The 45-degree line at the center of each graph represents how a model with no covariates would tradeoff between these two probabilities. The most important statistic in a ROC analysis is the area under the curve. If the area were equal to '1' there would be no tradeoff because our model would have correctly predicted every observation in the data. In the ROC curve for Model 1, however, the area under the curve is around .97, suggesting that the covariates we have included are highly useful in predicting conscription policies.¹⁹

While there are many cases that our models do not predict correctly, such as the decision by Uganda to adopt military conscription in 2007,²⁰ far more cases are predicted correctly. For instance, Model 1 predicts a near-zero probability of conscription for India, beginning just a few short years after independence. India now maintains the largest all-volunteer force in the world. Similarly, our models predict a volunteer force for Zambia in all years following independence. Like many British colonies, Zambia only experienced British-mandated conscription during World War II, and this tradition of a voluntary service carried over into the post-colonial era after 1964.

Conclusion

This study has provided the most comprehensive empirical analysis to date of why states decide to use conscription as the primary method of military recruitment. Examining a wide range of countries during the nineteenth and twentieth centuries, this study confirms a number of

¹⁹ The results are almost identical for the other two models in Table 1.

²⁰ While this change in policy occurred after our data ends, we nonetheless estimated a near-zero probability of conscription for Uganda after 1968.

expectations from the literature on conscription. In particular, we show that states with graver international security threats are more likely to impose the draft, which implies that the decreasing prevalence of interstate war could help explain the post-World War II and post-Cold War retreat from conscription. This study also contributes the most definitive answer to date on an unresolved question in the conscription literature. On the question of democracy and conscription—where some scholars find that democracies are less likely to opt for conscripts, others see no relationship at all, and still others find conditions when democracy favors conscription—we demonstrate that democracy indeed has a suppressive effect on the use of conscripts. But perhaps the most interesting finding in this study is that historical experience appears to carry a great deal of weight in the decision to institute conscription. States with a British colonial heritage and states that have used volunteer armies for many years are far less likely to impose the draft. The magnitude of the British colonial heritage effect is also significant; such states are nearly a third less likely to impose conscription, when controlling for a host of other variables. We also find support for our expectation that states that militarized earlier and at a faster rate are more likely to use the draft.

Despite the statistical strength of these findings, it is worth it to regard them as a starting point, not an ending point. In particular, future research should investigate exactly how attitudes towards conscription are transferred from generation to generation and from colonizer to colony, or—in the modern context—from superpower to security assistance recipient. Qualitative methodologies would be ideally suited to examining these relationships; there is still a chance we are right, but for the wrong reasons. Future research should also take into account the reasons why countries switch from one form of military recruitment to another. Evidence to date suggests that the dramatically reduced manpower needs and changed mission postures after the

Cold War led to a decrease in conscription in Europe, but it would also be worth examining the micro-economic processes at work in these countries, as it would be helpful to examine whether changes in the security environment impact conscription decisions in the same way outside of Europe. Switching from volunteer recruitment to conscription—and vice versa—is extremely rare: in the 6,759 country-years from 1969 to 2008, there have been 41 transitions to volunteer recruitment, but only 18 transitions to the draft. An exhaustive examination of these cases might turn up different processes at work than what we identify here.

This study also presents somewhat surprising findings: civil conflict and economic development do not seem to strongly influence conscription decisions. The null finding on internal conflict suggests the importance of state strength in imposing conscription, which could be a fruitful area for research into state–society relations. The null finding on economic development suggests that military policy decisions may have more to do with political culture and military traditions than with the ability to consume. In fact, in previous studies economic development may have actually been acting as a proxy for these hard-to-measure variables, which suggests that collecting more refined data on political culture and military traditions is in order.

Finally, this study provides some insight into the correlates of international conflict, as previous literature has linked the use of conscription with aggressive behavior on the part of states (Choi and James 2003, Pickering 2011). While some of the factors leading to the use of conscription are unalterable, such as a state’s colonial history, the results here provide policymakers and researchers with specific areas to focus on in reducing future conflict. For instance, efforts to encourage democratization have long been thought of as a way to deter conflict, and this study confirms that this process works, in part, by reducing the probability of a

conscripted military. Economic development, on the other hand, may be less useful in deterring conflict inasmuch as it does not seem to influence the use of military drafts. Future analyses of military recruitment may be most effective by focusing on how conscription policies interact with the political culture, military traditions, and economic conditions that contribute to state decisions on when and how to use the military.

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Table 1: Determinants of Military Conscription, 1816-2000

| | Model 1 | Model 2 | Model 3 |
|-------------------------|--------------------|--------------------|--------------------|
| Energy Per Capita | 0.01 (0.01) | 0.01 (0.01) | -0.01 (0.01) |
| Interstate War | 0.64** (0.34) | 0.74** (0.34) | 1.84** (0.81) |
| Intrastate War | -0.29* (0.17) | -0.28* (0.16) | -0.38* (0.21) |
| Interstate Rivalry | 0.59*** (0.11) | 0.64*** (0.11) | 0.68*** (0.14) |
| British Colony | -1.28*** (0.11) | -1.40*** (0.11) | -1.55*** (0.13) |
| Democracy (Polity) | -0.02*** (0.01) | - | - |
| Democracy (Boix, et al) | - | -0.46*** (0.09) | -0.52*** (0.12) |
| Military Spending/GDP | - | - | 0.14*** (0.03) |
| Volunteer Years | -1.09*** (0.07) | -1.14*** (0.07) | -1.12*** (0.09) |
| Constant | 2.76*** (0.07) | 2.88 *** (0.09) | 2.65*** (0.14) |
| Observations | 9460 | 9663 | 6285 |

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed)

(Robust standard errors in parentheses)

(Results for squared and cubed forms of *Volunteer Years* not reported)

Table 2: Incorporating Settler Mortality Rates and French Colony Status

| | Model 4 | Model 5 | Model 6 |
|-------------------------|--------------------|--------------------|--------------------|
| Settler Mortality Rate | -0.01 (0.01) | -0.01 (0.01) | -0.01 (0.01) |
| French Colony | 0.16 (0.44) | 0.38 (0.46) | 0.47 (0.54) |
| Energy Per Capita | -0.01 (0.04) | -0.01 (0.04) | -0.01 (0.04) |
| Interstate War | 0.23 (0.83) | -0.16 (0.62) | -0.26 (0.70) |
| Intrastate War | 0.04 (0.56) | 0.18 (0.63) | 0.15 (0.72) |
| Interstate Rivalry | 0.72*** (0.25) | 0.96*** (0.25) | 0.81*** (0.28) |
| British Colony | -1.33*** (0.33) | -1.64*** (0.34) | -1.73*** (0.35) |
| Democracy (Polity) | -0.05** (0.02) | - | - |
| Democracy (Boix, et al) | - | -0.81*** (0.30) | -0.71** (0.34) |
| Military Spending/GDP | - | - | 0.05 (0.07) |
| Volunteer Years | -1.25*** (0.19) | -1.43*** (0.22) | -1.54*** (0.26) |
| Constant | 2.65*** (0.26) | 2.94*** (0.31) | 2.87*** (0.36) |
| Observations | 1605 | 1648 | 1450 |

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed)

(Robust standard errors in parentheses)

(Results for squared and cubed forms of *Volunteer Years* not reported)

Table 3: Determinants of Military Conscription, 1816-1913 & 1946-2000

| | Model 7 | Model 8 | Model 9 |
|-------------------------|--------------------|--------------------|--------------------|
| Energy Per Capita | 0.01 (0.01) | 0.01 (0.01) | -0.01 (0.01) |
| Interstate War | 0.64* (0.37) | 0.67* (0.38) | 1.14* (0.65) |
| Intrastate War | -0.26 (0.19) | -0.26 (0.19) | -0.35 (0.22) |
| Interstate Rivalry | 0.63*** (0.13) | 0.70*** (0.13) | 0.70*** (0.16) |
| British Colony | -1.37*** (0.13) | -1.53*** (0.13) | -1.58*** (0.14) |
| Democracy (Polity) | -0.02*** (0.01) | - | - |
| Democracy (Boix, et al) | - | -0.58*** (0.10) | -0.54*** (0.12) |
| Military Spending/GDP | - | - | 0.14*** (0.02) |
| Volunteer Years | -1.21*** (0.08) | -1.32*** (0.10) | -1.37*** (0.11) |
| Constant | 2.88*** (0.08) | 3.09*** (0.10) | 2.80*** (0.13) |
| Observations | 8048 | 8245 | 6122 |

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed)

(Robust standard errors in parentheses)

(Results for squared and cubed forms of *Volunteer Years* not reported)

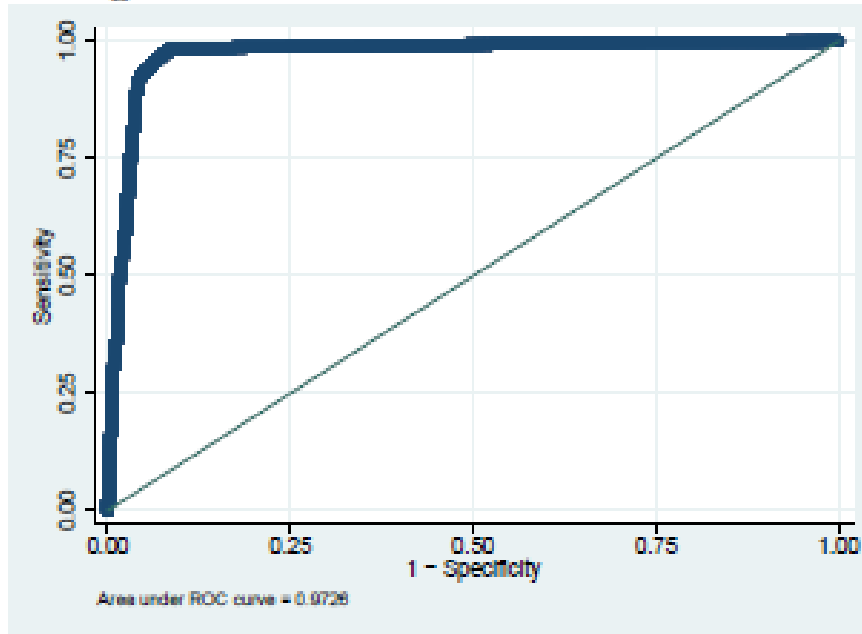
Table 4: Incorporating Random Effects, 1816-2000

| | Model 10 | Model 11 | Model 12 |
|-------------------------|--------------------|--------------------|--------------------|
| Energy Per Capita | 0.01 (0.02) | 0.01 (0.02) | -0.07*** (0.03) |
| Interstate War | 1.20*** (0.28) | 1.10*** (0.28) | 2.39*** (0.51) |
| Intrastate War | 0.42** (0.20) | 0.20 (0.20) | 0.14 (0.25) |
| Interstate Rivalry | 0.76*** (0.19) | 0.74*** (0.20) | 1.06*** (0.29) |
| British Colony | -6.17*** (0.95) | -6.92*** (0.98) | -9.52*** (1.23) |
| Democracy (Polity) | -0.03*** (0.01) | - | - |
| Democracy (Boix, et al) | - | -0.63*** (0.17) | -1.30*** (0.26) |
| Military Spending/GDP | - | - | 0.28*** (0.04) |
| Volunteer Years | -0.67*** (0.03) | -0.70*** (0.03) | -0.66*** (0.04) |
| Constant | 3.89*** (0.43) | 4.01*** (0.48) | 5.23*** (0.71) |
| Observations | 9460 | 9663 | 6285 |

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed)

(Results for squared and cubed forms of *Volunteer Years* not reported)

Figure 1: ROC Curve for Model 1



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