Explaining the Severity of Civil Wars

BETHANY LACINA
Political Science Department
Stanford University

The burgeoning literature on civil conflicts seldom considers why some civil wars are so much deadlier than others. This article investigates that question using a new data set of the number of combat deaths in internal conflicts from 1946 to 2002. The first section presents descriptive statistics on battle deaths by era, conflict type, and region. The article then tests state strength, regime type, and cultural characteristics as predictors of the number of combat deaths in civil war. The determinants of conflict severity seem to be quite different from those for conflict onset. Democracy, rather than economic development or state military strength, is most strongly correlated with fewer deaths; wars have also been less deadly on average since the end of the cold war. Religious heterogeneity does not explain the military severity of internal violence, and surprisingly, ethnic homogeneity may be related to more deadly conflicts.

Keywords: *civil war; battle deaths; democracy; state strength; ethnic violence*

Civil conflict is the most common form of warfare, accounting for all but three of the wars that broke out from 1990 to 2002[1] and 90 percent of civilian and combatant battle deaths during the same period.[2] As greater academic attention has been paid to internal warfare, scholars concentrating on large-*n* statistical work have begun to converge on a handful of factors that seem most important in explaining civil conflict onset and duration (for reviews of the quantitative literature, see Lacina 2004; Sambanis 2002, 2004). But wars come in different sizes, ranging from brief conflagrations that kill relatively few, to geographically isolated but prolonged insurgencies, to enormous military contests sweeping across entire states. The number of deaths in these conflicts varies from the widely used threshold of 1,000 killed to the far more massive toll of the three

1. According to the Uppsala/PRIO list of state-based armed conflicts. See Gleditsch et al. (2002) and Eriksson, Wallensteen, and Sollenberg (2003).
2. Calculated from Lacina and Gleditsch (2005).

AUTHOR'S NOTE: Sincere thanks are due to Jim Fearon, Nils Petter Gleditsch, and Scott Gates for help throughout this project. My Stanford colleagues will also notice how much I owe to their insights. Earlier versions of this article were presented at the 2004 Joint Session of Workshops of the European Consortium of Political Research, in Uppsala, Sweden, and the 2005 Annual Meeting of the International Studies Association in Honolulu. The project benefited from financial support by the Centre for the Study of Civil War at the International Peace Research Institute, Oslo, where I began work on this project and remain an affiliated researcher. Replication data and the appendix are available at http://jcr.sagepub.com/cgi/content/full/50/2/276/DC1/ and are posted with the Lacina and Gleditsch (2005) battle deaths data at http://www.prio.no/cscw/cross/battledeaths.

JOURNAL OF CONFLICT RESOLUTION, Vol. 50 No. 2, April 2006 276-289
DOI: 10.1177/0022002705284828

largest internal wars of the post–World War II era—in Vietnam, China, and Afghanistan—which combined to destroy more than 3 million people in combat. Yet, to date, academic work has focused on the incidence of civil war rather than accounting for this variation in severity.

Knowing why some conflicts tend to be more deadly than others is a question of inherent interest. The legacies of internal violence are poverty (Bayer and Rupert 2004; Collier et al. 2003; Murdoch and Sandler 2002) and poor public health (Ghobarah, Huth, and Russett 2003; Krug et al. 2002). In 2000, seven of the ten countries with the worst mortality rates among children younger than age five had recently suffered a civil war (Black, Morris, and Bryce 2003). And the depth of these impacts is likely in part determined by the severity of the conflict that has taken place. More deadly conflicts may also be more likely to recur (Fortna 2004).

Do wars generate high numbers of battle deaths when widespread grievances transform a marginal insurgency into a mass movement? Are political institutions tied to conflict size? Or is the opportunity to rebel against a disorganized and poor state sufficient to cause large numbers of battle deaths, even if the insurgents are a small group? These questions parallel the debate found in studies of conflict onset, some of which stress the importance of factors that provide resources and pecuniary incentives for rebellion (Collier and Hoeffler 2001) or the opportunities for insurgency offered by a weak state (Fearon and Laitin 2003), while others argue for the importance of ethnic or religious factors, political repression, or regime type (Elbadawi and Sambanis 2002; Ellingsen 2000; Hegre et al. 2001; Reynal-Querol 2002).

This article presents data on battle deaths in civil conflicts worldwide from 1946 to 2002, providing both a descriptive account of these data and a test for correlates of severity among civil wars. The first section discusses the use of battle deaths as a measurement of the severity of civil conflict and presents new combat deaths data on civil conflicts from 1946 to 2002. Second, I propose a series of hypotheses on possible determinants of the severity of civil conflict. Finally, regression analysis is used to identify factors that explain the variation in civil war battle deaths. In contrast to most analyses of civil war onset and duration, political variables outperform measures of state strength in predicting battle violence.

CONFLICT SEVERITY AND BATTLE DEATHS DATA

Gauging the "size" or "severity" of civil wars is by no means straightforward. A number of factors could be relevant to determining whether one civil war was more devastating than another: how many people and resources were devoted to fighting in the conflict, the geographic range of violence, and the indirect and direct losses due to the war, in both human and economic terms. There is a dearth of theory on how to estimate the full impact of war and an even more serious lack of cross-national information about these losses (Lacina and Gleditsch 2005). But it is possible to compare the military severity of civil conflicts based on battle deaths, meaning combatants and civilians killed by means of violence in the course of a military contest. Such fatalities can be distinguished from indirect deaths caused by war-related hardships, as well as

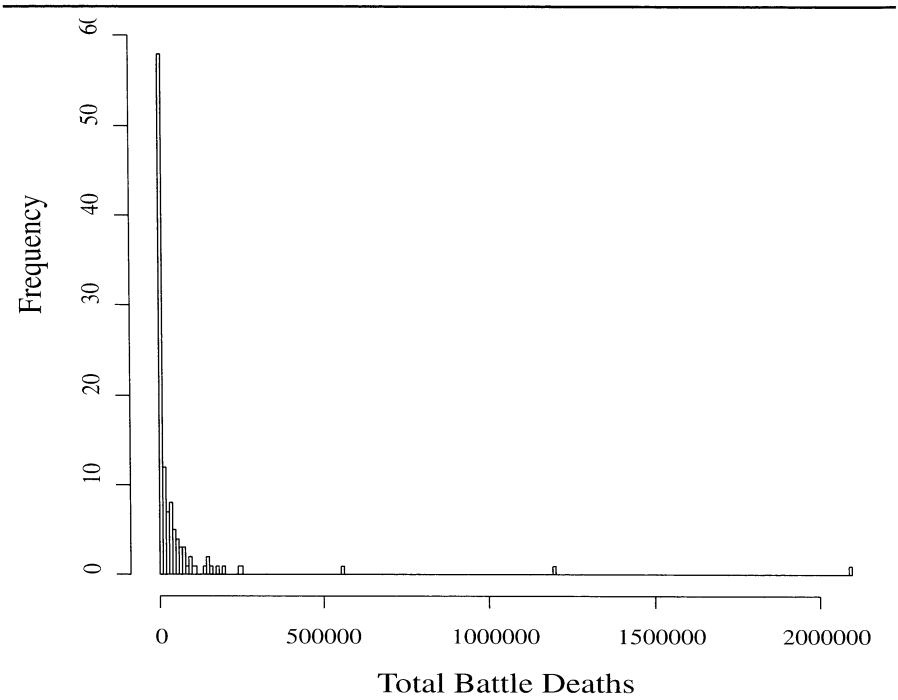

Figure 1: Histogram of Total Battle Deaths in Civil War, 1946-2002

from deaths in unorganized violence (such as rioting) or in one-sided violence (such as genocide). A focus on battle deaths would not necessarily be a useful way to determine which wars have had the greatest humanitarian cost, but it is a reasonable measure of the scale of combat.

I explore civil conflict severity here with a new data set of battle fatalities (Lacina and Gleditsch 2005) based on incidents in the Uppsala/PRIO list of state-based armed conflicts (Eriksson, Wallensteen, and Sollenberg 2003; Gleditsch et al. 2002). I compiled the Lacina and Gleditsch (2005) fatalities data into estimates of total battle deaths in 114 civil wars that took place between 1946 and 2002 in which at least 900 persons were killed.[3]

Perhaps the most notable feature of these data is the enormous skew in the number of battle deaths caused in various civil wars over the past half century (see Figure 1). The battle toll of civil wars clusters toward the low end of a range that runs from 900 to more than 2 million in Vietnam. The median civil war in these data killed a total of about 10,500 in combat (less than 0.5 percent of the maximum), while the average number killed is almost six times that figure. Conflict fatality data also reveal signifi-

3. The appendix to this article lists the civil conflicts used and the number of battle deaths recorded in each. It is available online with the replication data for this article. See Lacina and Gleditsch (2005) for a full description of the battle deaths data set used here, a complete definition of battle deaths, and a discussion of the differing explanatory power of various measures of the human costs of conflict.

TABLE 1
Civil War Battle Deaths, 1946-2002,
Median Estimates by Era, Conflict Type, and Region

Category	*Total Battle Deaths*	*Rate of Battle Deaths*	*Deaths per 100,000 People*	*Population of Country in War (Millions)*
Role of cold war				
Wars begun prior to 1989	18,000	2,700	130	17
Wars begun in 1989 or later	4,300	1,350	35	15
Conflict type				
Nonsecessionist conflict	10,000	2,000	140	8
Secessionist conflict	9,100	2,300	26	67
Region				
Sub-Saharan Africa	15,000	2,000	130	9
Americas	4,500	2,000	160	4
Central and South Asia	3,600	1,600	14	47
East and Southeast Asia and Oceania	24,000	2,400	39	57
Europe	8,800	4,700	31	23
Middle East and North Africa	15,000	2,800	170	8

cant variation by era, conflict type, and region[4] (see Table 1). Post–cold war conflicts have tended to be less deadly in terms of absolute numbers killed, rate of deaths, and deaths normalized by population than cold war conflicts. Secessionist conflicts have not been much less deadly in absolute terms or in deaths per year than nonsecessionist conflicts, contradicting the assumption that because such wars are geographically isolated, they tend to be small.[5] But wars of secession do seem to induce far fewer deaths per capita than other conflicts, despite a similar annual rate of fatalities, because separatist conflict seems to occur primarily in large countries—the median population of a country in secessionist conflict is almost eight times that of a country in a nonseparatist civil war. Larger countries are probably more likely to have enclaves that are ethnically or lingually distinct from the group controlling the capital and have the economic potential to be viable states.

By geographic region, conflicts in East and Southeast Asia killed the most people in combat, while wars in America, Europe, and Central and South Asia have had the smallest battle death tolls. Europe's wars are the only ones to stand out in terms of rate of fatalities, tending to kill relatively quickly; in fact, there have been only seven civil wars in Europe since 1946, and only one (in Northern Ireland) lasted for more than four years. Normalization by population size yields figures that are largest in the small states of the Americas, as well as in the Middle East and sub-Saharan Africa, while deaths in East and Southeast Asia, Central and South Asia, and Europe are significantly discounted. The reevaluation by population size is quite dramatic in some cases:

4. For a definition of the regions used, see Lacina and Gleditsch (2005).
5. Secessionist conflict was defined following the Uppsala/PRIO data set (Eriksson, Wallensteen, and Sollenberg 2003).

the absolute number killed in the median conflict in Central and South Asia is 80 percent of the similar figure for the Americas, but the Asian death rate per person is just 9 percent of the American rate. I will return to the relationship between battle deaths, conflict duration, and total population in the regression analysis below.

WHAT DETERMINES CONFLICT SEVERITY?

Scholars of civil conflict onset have engaged in a debate over whether variables relating to the opportunity to fight or the motivation to fight are most important to understanding where civil war will occur. The severity of military conflict should also relate to both opportunity and impetus, tending to be more deadly as the sides become better armed and organized and as they become increasingly convinced that military activity is their best strategy for obtaining their goals. Current civil war literature suggests that state capacity, regime type, and ethnic and religious diversity may determine ability or willingness to initiate a civil conflict. By contrast, I discuss the potential of each of these variables to predict conflict severity.

It is important to keep in mind that the question being investigated is what explains the variation in the numbers of battle deaths among observed civil wars. In other words, conditional on suffering a civil war, how deadly is combat likely to be? Factors that make a country high risk for civil war may not have much predictive power for explaining variation in deaths among civil wars. For example, if countries that fall into internal conflict are generally poor, it may be that poverty is too ubiquitous to explain much about which of these wars become most deadly. This study thus complements, rather than replaces, work on civil conflict onset.[6]

STATE STRENGTH

Models for the onset of civil war have found that war is most likely to occur in impoverished states. Fearon and Laitin (2003) have argued that low gross domestic product (GDP) per capita is a strong predictor of civil war because it proxies for state incapacity, while Collier and Hoeffler (2001) emphasize factors they believe strengthen the states' challengers, such as large numbers of unemployed young men, unregulated markets, lootable resources, and porous borders. A corollary hypothesis might be that state capacity, which is associated with strong counterinsurgency, general institutional strength, and high opportunity costs to rebellion, explains which states will have the smallest civil wars:

Hypothesis 1A: Among states experiencing civil conflicts, more severe conflicts will occur in weak states.

6. It would be incorrect to use the results presented here to make predictions about how many civil war combat deaths are likely to occur in a country selected at random, without first taking into account the selection process that determines whether that state is likely to fall into civil war at all. However, I am not convinced that a selection effects model for civil conflict severity is more useful than estimating conditional probabilities, as random assignment of the "treatment" of civil war is not just unobservable but conceptually meaningless.

But while a weak state and aids to rebellion may make a war easy to start, they do not necessarily determine how deadly the conflict will be, at least not in a straightforward manner. On one hand, strong states are certainly less likely than weak states to be faced with well-matched opponents, suggesting that weak states may have more trouble containing internal violence. On the other hand, civil conflicts in very weak states and very poor societies are likely to feature militaries with limited organizational capacity and limited access to technologies such as aircraft, tanks, and heavy artillery. A small insurgent movement and a weak state may be in a stalemated civil war simply because neither is able to seriously challenge the other's strongholds. And in wars of outright state collapse, which Kalyvas (2005, 88) aptly characterizes as "symmetric non-conventional" warfare, all combatant groups have minimal military strength and organizational coherence. The resulting anarchic and disorganized conflict is typified more by humanitarian crisis, predatory violence, and warlordism than sustained combat (Herbst 2004; Mueller 2003). Thus, there may not be any unidirectional relationship between weak states and severe civil wars:

> *Hypothesis 1B:* Among states experiencing civil conflicts, the severity of civil conflicts will be uncorrelated with state strength.

A nonrelationship would be particularly plausible if the military capacity of both the regime and its challengers is determined less by domestic economics than by outsiders' economic and military support. When foreigners support parties that would not otherwise be able to sustain a military challenge or undertake competitive sponsorship of different sides of a civil conflict, internal wars are likely to be more severe. Regan (2000) has found that while external, military intervention in civil war may sometimes create an overwhelming advantage on one side and end the war, in general, outside participation on either or both sides of a conflict prolongs fighting. Thus, the following can be predicted:

> *Hypothesis 1C:* Among states experiencing civil conflicts, more severe conflicts will occur when there is external military assistance to the government and/or its challengers.

Finally, the literature on state capacity and civil war onset calls attention to the importance of geography to counterinsurgency. Fearon and Laitin (2003, 80) argue that rough terrain aggravates state weakness because of the expensive infrastructure investment necessary to control thinly populated territories, the easy cover it offers insurgents, and the ease of monitoring the sparse population. Statistical analysis does find a correlation between rough terrain, low population density, and conflict onset (Collier and Hoeffler 2001; Fearon and Laitin 2003).

In predicting civil war battle deaths, however, it may be less important to note that terrain can create the possibility for conflict and more important to note how terrain is likely to affect combat tactics. In rough terrain, both sides will probably be forced to deploy in relatively small units, reducing the number of people involved per engagement. Conflicts that feature large numbers of battle deaths usually include at least some battles in urban and open territories where large numbers and heavy weaponry

can be deployed, soldiers can be targeted with aerial strikes and artillery bombardment, and civilians are caught in the crossfire. It is probable that, conditional on being able to launch an insurgency, wars fought in densely populated areas and through conventional battle methods are the most deadly. Thus, the relationship between terrain and conflict severity seems likely to be the reverse of that between terrain and conflict onset:

Hypothesis 1D: Among states experiencing civil conflicts, less severe conflicts will occur in states with rougher terrain.

REGIME TYPE

The severity of civil war may also be related to political considerations that influence willingness to continue, escalate, and deescalate fighting. Thus far, there is only mixed evidence of a role for regime type in conflict onset[7] but some indication of a relationship to conflict severity. Carey (2005) finds that the presence of executive constraints, open executive recruitment, and breadth of political participation are all negatively associated with the probability of civil conflict escalation and the onset of large civil wars, although they seem to make no difference in the likelihood of minor civil conflicts.

There are at least three possible reasons to expect that regime type might relate to combat severity, even if it does not relate to conflict onset. These are selection effects, democratic norms, and the political adaptability of institutions. I consider the last to be the most plausible link between regime type and conflict severity, although this study cannot distinguish among the explanations in its empirical tests.

Selection effects play a major role in the literature on regime type and interstate war. Democracies tend to win interstate wars, and it has been argued that this is in part due to their tendency to pick fights they can win and minimize casualties to avoid public backlash (Bennett and Stam 1996, 243; Bueno de Mesquita and Lalman 1992, 153-4; Siverson 1995). Democratic leaders, likely under public pressure to avoid bloodshed at home as well as abroad, may tend to grant concessions when faced with a severe insurgent threat. As a result, one may observe only rather small, easily controlled insurgencies in states with publicly accountable leaders.

A second, normative perspective would argue that regime type influences conflict severity because democratic governments are unwilling to use the harshest measures against rebels or to inflict great collateral loss of life among civilians. Democratic leaders may be constrained due to norm internalization, through institutional checks on their powers (such as courts to prosecute cases of war crimes), or public pressure arising from sympathy with insurgents or bystanders. Valentino, Huth, and Balch-Lindsay (2004) argue that democratic governments are less likely to resort to mass

7. Collier and Hoeffler (2001) and Fearon and Laitin (2003) find that economic measures trump democracy in explaining conflict outbreak. But Elbadawi and Sambanis (2002) find that democracy, especially several years of democracy, is negatively associated with the prevalence (onset and duration) of conflict. Benson and Kugler (1998, 199) emphasize the immunity from conflict of democracies that are also strong states.

killings of the civilian supporters of elusive guerillas. Democracy is also negatively associated with the incidence of genocide (Harff 2003).

The third possible link between regime type and conflict severity is the possibility that democracies are better equipped to co-opt, contain, and negotiate with rebels than are other governments. Democracies have structures of government that allow for power rotation and public participation in policy formation and provide for checks on the center, such as an independent judiciary or federalism. These institutions are available to incorporate insurgents as additional players in a peaceful political contest. For example, India has dealt with internal insurgencies by developing a looser federalism among its states (Brass 1994). The threat of post–World War II communist insurgency in European countries such as Italy dissipated as far-left factions became incorporated in the electoral process.

Note that the responsiveness of a democratic political system does not necessarily guarantee that civil conflict will not break out—if concessions can be won through insurgency, there remains an incentive to launch violent acts—but only that civil conflict will be more readily contained. In fact, there may be greater incentives to launch small insurgencies in democracies if such governments are both more sensitive to political pressure to end internal disorder and have available institutions that make concessions less costly compared to similar adaptations in an autocracy. By contrast, in nondemocracies, challengers may assume that their best hope of achieving their goals is military victory or the collapse of the current regime and accordingly choose more deadly tactics (Lacina 2005).[8]

Combining the arguments regarding selection effects, norms, and institutional adaptability yields the following hypothesis:[9]

Hypothesis 2: Among states experiencing civil conflicts, less severe conflicts will occur in democracies.

THE ROLE OF ETHNICITY AND RELIGION

The third and final set of possible determinants of the combat severity of civil wars are cultural characteristics that may cement the willingness to bear the costs of conflict. Ascriptive identities, especially ethnolinguistic and religious loyalities, are often suggested to be less flexible than political ideologies (Horowitz 1985; Huntington 1997; Thies 2004), leading some to contrast relatively civilized ideological warfare to bloody, primordial ethnic conflicts (Duffield 1998; Kaldor 1999; Snow 1996; Thies 2004). If ethnic or religious conflicts are grounded in particularly strong antipathy or are inherently zero sum in nature, it may be impossible for the parties to ratchet down

8. Some violent groups operating in democracies, such as the Euskadi Ta Askatasuna (ETA) in Spain or the Orange Volunteers in Northern Ireland, have been known to alert the authorities prior to attacks so that few or no casualties are inflicted (Pape 2003, 345). It is difficult to imagine this tactic, which is essentially about political communication, being effective in the absence of a free press or against a regime that was not publicly accountable for law and order.

9. Some studies of conflict onset stress regime stability over regime type (Hegre et al. 2001). A variable for anocracy (regimes falling between –6 and 6 on the combined Polity index) is not a significant correlate of conflict severity when it is added to the models presented here.

violence in favor of cohabitation. These dynamics are particularly likely to result in severe combat if each antagonistic group comprises a substantial population, suggesting the following hypotheses:[10]

Hypothesis 3A: Among states experiencing civil conflicts, more severe conflicts will occur in states that are ethnically polarized.
Hypothesis 3B: Among states experiencing civil conflicts, more severe conflicts will occur in states that are religiously polarized.

On the other hand, the search for a statistical relationship between cultural factors and conflict onset has uncovered only mixed results, and it would be quite surprising if ethnic and religious hatreds made civil wars especially vicious without also making them more likely.[11] Also, despite the recent attention paid to it, ethnic conflict is neither a new phenomenon (Kalyvas 2001) nor uniquely bloody. The Vietnamese and Chinese civil wars, the largest of the post–World War II era, were primarily "ideological" in nature. Many civil conflicts with an ethnic dimension—for example, in Afghanistan, Ethiopia, and Mozambique—escalated due to external military assistance provided in the name of cold war ideological schisms. And although cultural demands are generally thought to be exceptionally rigid, any struggle for political power can be zero sum if the players are sufficiently intractable. Regionally based cultural elites may be ready to accept power devolution and partial autonomy arrangements; competition for control of the center seems to admit, if anything, less chance for compromise (Walter 1997).

MODELING CONFLICT SEVERITY

I now turn to an empirical test of the three groups of variables discussed—state power, regime type, and cultural diversity—as determinants of the number of battle deaths in civil conflicts between 1946 and 2002. The dependent variable is the severity of battle violence in a civil conflict, measured as the natural log of total battle deaths. The regression controls for variation in conflict duration and population by using the log of each as independent variables.[12]

The first variable chosen to measure state capacity is military quality, the best available indicator of counterinsurgency capabilities. Military quality is defined as military

10. Recall that one-sided violence is not included in battle deaths. Certain types of one-sided violence, especially genocide, may be more closely related to cultural identity than are battle deaths. For a discussion of determinants of massacres and other one-sided violence, see Harff and Gurr (1988), Harff (2003), and Valentino, Huth, and Balch-Lindsay (2004).

11. Collier and Hoeffler (2001) and Fearon and Laitin (2003) find that ethnicity and religion do not explain war outbreak, while Hegre et al. (2001) and Elbadawi and Sambanis (2002) report that ethnic heterogeneity correlates with civil war. Ellingsen (2000) considers ethnic, religious, and linguistic identities simultaneously and finds higher conflict risk in diverse nations.

12. In the case of ongoing conflicts, duration refers only to the number of years for which battle deaths information was collected. The Lacina and Gleditsch (2005) fatalities data include low and high estimates of battle deaths as well as best estimates, which are used here. My results are similar to those reported when I use the low and high estimates. See replication data for details.

expenditure divided by number of military personnel (following Bennett and Stam 1996).[13] The variable is log transformed and lagged by a single year. Therefore, these figures may reflect the regime's accurate forebodings of conflict but not any upsurge in spending or recruitment after the outbreak of war. I also test GDP per capita, adjusted for purchasing power and for inflation, logged, and measured in the year prior to fighting.[14] GDP per capita is the most common proxy for state strength in the civil war literature and seems to predict conflict onset consistently (Sambanis 2004).

I have suggested that domestic capacities may be less important than external military intervention in determining the severity of civil conflict. I test this hypothesis with a dummy variable for wars beginning during the cold war, when there was a greater availability of military assistance to states and rebel groups (Karp 1988; also compare SIPRI 1969, 1978, 1988).[15] As a final variable in the investigation of state strength, I test the role of rough terrain by noting the log of the percentage of mountainous terrain in the country.[16]

Turning to regime characteristics, I code a dummy variable for democracy, defined as a score of 6 or higher on a combined Polity scale of regime type (Marshall and Jaggers 2003).[17] Finally, I note ethnic and religious polarization dummy variables, coded as 1 where an ethnic or religious minority compromised at least 8 percent of the total population.[18]

FINDINGS

Table 2 shows the results of ordinary least squares (OLS) regressions for battle deaths in civil conflicts. Model 1 presents the regression of total battle deaths, and model 2 is a trimmed specification using only variables significant in the first regression; there are no missing observations for this model. Not surprisingly, the total number of battle deaths increases as a function of time in conflict.[19] However, a larger population does not predict a higher number of deaths. The nonrelationship between total

13. Inflation-adjusted data on military spending and data on numbers of military personnel are from the Correlates of War National Militaries Capabilities data set, version 3.01 (Singer, Bremer, and Stuckey 1972), and were downloaded with EUGene (Bennett and Stam 2000).

14. Data are from Fearon and Laitin (2003) and World Bank (2003).

15. The cold war dummy variable is coded for wars starting prior to 1989, following Collier and Hoeffler (2001). The dummy succeeds in capturing some variation in the incidence of foreign military intervention, which featured in 61 percent of conflicts that began before 1989 and just 45 percent of those beginning after that time (calculated from replication data for Regan 2000). War-specific data on the incidence of foreign military activity do predict more severe internal conflicts, but problems of endogeneity mean that it is unclear whether this result is due to interventions being a cause of severe conflict or a response to it.

16. From Fearon and Laitin (2003).

17. The Polity scale gives regimes scores from 0 to 10 in terms of both democratic and autocratic characteristics. Changing the sign on the autocracy scores and adding the two scores places states along a range from –10 to 10.

18. This coding rule follows Fearon and Laitin (2003). I also tested Fearon and Laitin's measures of ethnic and religious fractionalization, defined as the probability that two members of a population are of the same ethnicity or confession. They were not significant predictors of civil conflict severity.

19. Perhaps more interesting is that there is no statistically significant relationship between deaths per year and conflict duration. A faster death rate does not seem to generate a countervailing tendency toward shorter conflict. Thus, factors that predict large numbers of deaths should also predict high rates of death.

TABLE 2
Ordinary Least Squares (OLS) Regressions of
Battle Deaths in Civil Conflicts, 1946-2002

	OLS Regression of ln Total Battle Deaths		
Independent Variable	*Coefficient*	*(SE)*	p-*Value*
Model 1[a]			
ln Duration	0.81	(0.12)	.000
ln Population	–0.044	(0.081)	.580
ln Military quality	0.10	(0.12)	.400
ln Gross domestic product	–0.19	(0.18)	.280
Cold war	0.67	(0.31)	.036
ln Percentage mountainous territory	0.10	(0.12)	.400
Democracy	–0.87	(0.36)	.017
Ethnic polarization	–0.98	(0.34)	.005
Religious polarization	0.12	(0.32)	.710
Intercept	9.50	(2.00)	.000
Model 2[b]			
ln Duration	0.86	(0.11)	.000
Cold war	0.59	(0.27)	.030
Democracy	–0.91	(0.33)	.006
Ethnic polarization	–1.00	(0.30)	.001
Intercept	8.60	(0.35)	.000

a. $n = 105$. Adjusted $R^2 = 0.40$.
b. $n = 114$. Adjusted $R^2 = 0.43$.

deaths and total population means that normalizing deaths by population may too heavily discount deaths in large countries, as war does not seem to scale up in populous nations.

Variables proxying state and rebel strength have no predictive power in these models. Military quality has an unexpected positive sign and is not significant. GDP per capita has the expected negative sign but is also insignificant. These results are unlikely to be due to multicollinearity as an F test easily rejects the joint significance of military quality and GDP per capita.[20] The results here suggest that because state capacity has contradictory significance for the likelihood of parity between combatants and their military capacity, it is difficult to find a correlation between state capacity and conflict severity.[21] Terrain also has no explanatory power.

What seems to be more important for determining the military severity of a civil war is the availability of foreign aid and intervention. The dummy variable for the cold war predicts civil wars with about 1.8 times the number of battle deaths of later civil conflicts.

20. An F test comparing model 2 to a similar specification, including gross domestic product/capita and military quality, returns a test statistic of 0.62 (p-value = 54 percent).

21. A recentered quadratic term for military quality or gross domestic product/capita returns no evidence of a simple curvilinear function.

Political characteristics also strikingly outperform state power variables. More democratic regimes are associated with smaller civil conflicts. The substantive effect is even larger than that of the cold war, as civil wars in democracies are expected to have less than half the battle deaths seen in conflicts in nondemocracies.

Finally, there are mixed results for variables measuring the cultural makeup of the state. Religious diversity displays no significant correlation with conflict size. Interestingly, there is a significant and large negative coefficient on the variable for ethnic polarization.[22] The results were unexpected, but a post hoc explanation might be that in ethnically homogeneous societies virtually the entire population can be implicated in the conflict, and it is more difficult to determine who is on what side, leading to more indiscriminate use of force. What is clear is that there is no indication in these results that cultural diversity provides elites with remarkable advantages in mobilizing their followers and convincing them to bear the costs of war, nor is there support here for a thesis of bloody ethnic wars as opposed to civilized ideological wars, a distinction that has always been tenuous at best.

CONCLUSION

It has been argued that grievances are so common across all societies that it is opportunity—weak states and aids to rebellion—that determines where and when wars begin. This may seem to suggest that political factors have little to contribute to civil peace and that investment in counterinsurgency is the only road to stability. This article has introduced a cautionary note against such a conclusion by pointing out that knowing why wars start does not necessarily reveal when they will be most devastating.

In the statistical work presented here, state strength variables do not explain why some civil wars kill more people in combat than others. Nor does ethnic or religious heterogeneity explain the severity of internal war. Instead, there is an unexpected link between ethnic homogeneity and large wars. A strong predictor that a civil war will be severe is the availability of foreign assistance to the combatants. Democracy is also associated with fewer battle deaths; selection of conflicts, democratic norms, and institutional adaptability may all play a role in explaining this finding. Further research should focus on both testing the robustness of the relationship between regime type and conflict severity found here and developing a more precise theory of how challengers choose tactics against liberal and illiberal political regimes and how such governments tend to respond to political violence.

22. The result in model 2 is not overturned even after exclusion of outliers from quite homogeneous East Asian countries—namely, the Vietnam War, the Chinese Civil War, and the Cambodian Civil War from 1967 to 1975.

REFERENCES

Bayer, R., and M. C. Rupert. 2004. Effects of civil wars on international trade, 1950-92. *Journal of Peace Research* 41 (6): 699-713.

Bennett, D. S., and A. C. Stam. 1996. The duration of interstate wars, 1816-1985. *American Political Science Review* 90 (2): 239-57.

———. 2000. EUGene: A conceptual manual. *International Interactions* 26 (2): 179-204.

Benson, M., and J. Kugler. 1998. Power parity, democracy, and the severity of internal violence. *Journal of Conflict Resolution* 42 (2): 196-209.

Black, R., S. Morris, and J. Bryce. 2003. Where and why are 10 million children dying every year? *Lancet* 361 (9376): 2226-34.

Brass, P. 1994. *The politics of India since independence: Vol. 1. The new Cambridge history of India.* Cambridge, UK: Cambridge University Press.

Bueno de Mesquita, B., and D. Lalman. 1992. *War and reason: Domestic imperatives and international imperatives*. New Haven, CT: Yale University Press.

Carey, S. C. 2005. Patterns of authority and the escalation of intrastate conflict. Paper presented at the general meeting of the European Consortium for Political Research, September 8-10, Budapest.

Collier, P., L. Elliott, H. Hegre, A. Hoeffler, M. Reynal-Querol, and N. Sambanis. 2003. *Breaking the conflict trap: Civil war and development policy.* Oxford, UK: Oxford University Press.

Collier, P., and A. Hoeffler. 2001. Greed and grievance in civil war. World Bank Policy Research Working Paper 2355, World Bank, Washington, D.C.

Duffield, M. 1998. Post-modern conflict: Warlords, post-adjustment states and private protection. *Civil Wars* 1 (1): 65-102.

Elbadawi, I. A., and N. Sambanis. 2002. How much war will we see? Explaining the prevalence of civil war. *Journal of Conflict Resolution* 46 (3): 307-34.

Ellingsen, T. 2000. Colorful community or ethnic witches' brew? *Journal of Conflict Resolution* 44 (2): 228-49.

Eriksson, M., P. Wallensteen, and M. Sollenberg. 2003. Armed conflict, 1989-2002. *Journal of Peace Research* 40 (5): 593-607.

Fearon, J. D., and D. D. Laitin. 2003. Ethnicity, insurgency, and civil war. *American Political Science Review* 97 (1): 75-90.

Fortna, V. P. 2004. Does peacekeeping keep peace? International intervention and the duration of peace after civil war. *International Studies Quarterly* 48 (2): 269-92.

Ghobarah, H. A., P. K. Huth, and B. Russett. 2003. Civil wars kill and maim people—long after the shooting stops. *American Political Science Review* 97 (2): 189-202.

Gleditsch, N. P., P. Wallensteen, M. Eriksson, M. Sollenberg, and H. Strand. 2002. Armed conflict, 1946-2001: A new dataset. *Journal of Peace Research* 39 (5): 615-37.

Harff, B. 2003. No lessons learned from the Holocaust? Assessing risks of genocide and political mass murder since 1955. *American Political Science Review* 97 (1): 57-73.

Harff, B., and T. R. Gurr. 1988. Toward empirical theory of genocides and politicides: Identification and measurement of cases since 1945. *International Studies Quarterly* 32 (3): 359-71.

Hegre, H., T. Ellingsen, N. P. Gleditsch, and S. Gates. 2001. Towards a democratic civil peace? *American Political Science Review* 95 (1): 33-48.

Herbst, J. 2004. African militaries and rebellion: The political economy of threat and combat effectiveness. *Journal of Peace Research* 41 (3): 357-69.

Horowitz, D. L. 1985. *Ethnic groups in conflict.* Berkeley: University of California Press.

Huntington, S. 1997. *The clash of civilizations and the remaking of the world order.* New York: Simon & Schuster.

Kaldor, M. 1999. *New and old wars: Organized violence in a global era.* Stanford, CA: Stanford University Press.

Kalyvas, S. N. 2001. "New" and "old" civil wars: A valid distinction? *World Politics* 54 (1): 99-118.

———. 2005. Warfare in civil wars. In *Rethinking the nature of war,* edited by I. Duyvesteyn and J. Angstrom, 88-108. London: Frank Cass.

Karp, A. 1988. The trade in conventional weapons. In *SIPRI yearbook 1988: World armaments and disarmament*, 175-201. Oxford, UK: Oxford University Press.

Krug, E. G., L. L. Dahlberg, J. A. Mercy, A. B. Zwi, and R. Lozano. 2002. *World report on violence and health*. Geneva, Switzerland: World Health Organization.

Lacina, B. 2004. From side show to centre stage: Civil conflict after the cold war. *Security Dialogue* 35 (2): 191-205.

———. 2005. Rebels as lobbyists: A political theory of asymmetrical insurgency. Paper presented at the general meeting of the European Consortium for Political Research, September 8-10, Budapest.

Lacina, B., and N. P. Gleditsch. 2005. Monitoring trends in global combat: A new dataset of battle deaths. *European Journal of Population* 2-3:145-66.

Marshall, M. G., and K. Jaggers. 2003. *Polity IV project*. College Park: Center for International Development and Conflict Management at the University of Maryland.

Mueller, J. 2003. Policing the remnants of war. *Journal of Peace Research* 40 (5): 507-18.

Murdoch, J. C., and T. Sandler. 2002. Economic growth, civil wars, and spatial spillovers. *Journal of Conflict Resolution* 46 (1): 91-110.

Pape, R. A. 2003. The strategic logic of suicide terrorism. *American Political Science Review* 97 (3): 343-61.

Regan, P. 2000. *Civil wars and foreign powers: Outside intervention in intrastate conflict*. Ann Arbor: University of Michigan Press.

Reynal-Querol, M. 2002. Ethnicity, political systems, and civil wars. *Journal of Conflict Resolution* 46 (1): 29-54.

Sambanis, N. 2002. A review of recent advances and future directions in the quantitative literature on civil war. *Defence and Peace Economics* 13 (3): 215-43.

———. 2004. What is a civil war? Conceptual and empirical complexities of an operational definition. *Journal of Conflict Resolution* 48 (6): 814-58.

Singer, J. D., S. Bremer, and J. Stuckey. 1972. Capability distribution, uncertainty, and major power war, 1820-1965. In *Peace, war and numbers*, edited by B. Russett, 19-48. Beverly Hills, CA: Sage.

SIPRI. 1969. *SIPRI yearbook of world armaments and disarmament 1968/9*. New York: Humanities Press.

———. 1978. *SIPRI yearbook 1978: World armaments and disarmament*. London: Taylor & Francis.

———. 1988. *SIPRI yearbook 1988: World armaments and disarmament*. London: Taylor & Francis.

Siverson, R. M. 1995. Democracies and war participation: In defense of the institutional constraints argument. *European Journal of International Relations* 1 (4): 481-9.

Snow, D. M. 1996. *Uncivil wars: International security and the new internal conflicts*. Boulder, CO: Lynne Rienner.

Thies, C. G. 2004. State building, interstate and intrastate rivalry: A study of post-colonial developing country extractive efforts, 1975-2000. *International Studies Quarterly* 48 (1): 53-72.

Valentino, B., P. K. Huth, and D. Balch-Lindsay. 2004. "Draining the sea": Mass killing and guerilla warfare. *International Organization* 58 (2): 375-407.

Walter, B. 1997. The critical barrier to civil war settlement. *International Organization* 51 (3): 335-64.

World Bank. 2003. *World development indicators*. Washington, D.C.: World Bank.