# UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

STUDENTS FOR FAIR ADMISSIONS,

Plaintiff,

v.

THE UNITED STATES MILITARY ACADEMY AT WEST POINT; THE UNITED STATES DEPARTMENT OF DEFENSE; LLOYD AUSTIN, in his official capacity as Secretary of Defense; CHRISTINE WORMUTH, in her official capacity as Secretary of the Army; LIEUTENANT GENERAL STEVEN GILLAND, in his official capacity as Superintendent of the United States Military Academy; and LIEUTENANT COLONEL RANCE LEE, in his official capacity as Director of Admissions for the United States Military Academy at West Point,

23 Civ. 8262 (PMH)

DECLARATION OF JASON LYALL, Ph.D.

Defendants.

- I, Jason Lyall, pursuant to the provisions of 28 U.S.C. § 1746, declare, under penalty of perjury, as follows:
- 1. I submit this declaration in support of the Defendants' opposition to Plaintiff's motion for a preliminary injunction.
- 2. I am the James Wright Chair of Transnational Studies and Associate Professor in the Department of Government at Dartmouth College, where I also direct the Political Violence FieldLab. I have a Ph.D. in Government from Cornell University. I have published broadly and taught courses on military effectiveness, war, aid in conflict settings, intergroup relations, and political violence at both the undergraduate and graduate levels. My research has been funded by

AidData/USAID, the Air Force Office of Scientific Research, the MacArthur Foundation, National Science Foundation, the Folke Bernadotte Academy, and the United States Institute of Peace. I have conducted fieldwork in Russia and Afghanistan, where I served as the Technical Adviser for USAID's Measuring the Impact of Stabilization Initiatives (MISTI) project during 2012-15. I was named an Andrew Carnegie Fellow in 2020.

- 3. My current research examines how intergroup relations affect battlefield performance in modern war. The centerpiece of this research to date is my book, *Divided Armies: Inequality and Battlefield Performance in Modern War* (Princeton University Press, 2020). It was awarded the 2021 Peter Katzenstein Book Prize, the 2021 APSA Conflict Processes Best Book Award, the 2020 Joseph Lepgold Book Prize, the 2020 Edgar Furniss Book Prize, and was named a "Best of 2020" book by Foreign Affairs. I have delivered presentations on military inequality and battlefield performance at more than 25 universities, think-tanks, professional associations, and government agencies in the United States and abroad since 2020.
- 4. Prior to joining Dartmouth, I taught in the Department of Political Science at Yale University and the Politics Department and School of Public and International Affairs at Princeton University.
- 5. I have presented at professional conferences and published articles on war, diversity, and political violence in leading political science journals. These include the *American Political Science Review, American Journal of Political Science, Foreign Affairs, International Organization, International Studies Quarterly, Journal of Conflict Resolution, Journal of Peace Research, Journal of Politics, JRSS: Series B, and World Politics, among others. My detailed curriculum vitae, attached as Appendix A, includes all of my publications, grants, and on-going research activities.*

- 6. Counsel for the Defendants has asked me to provide an overview of the relationship between diversity and inclusion and the battlefield performance of armies in modern war. To that end, I have summarized the evidence, including from my own research, on how diversity and inclusion affect battlefield performance, including its (1) cohesion and (2) lethality in modern war. I have also reviewed the Plaintiff's complaint and provide commentary as it relates to my affirmative analysis and opinions.
- 7. I am being compensated for my time in this case at my customary rate of \$400 per hour. My compensation is not contingent upon my testimony or on the result of this proceeding.
- 8. Appendix B lists all materials I have considered in preparing this report. I focused specifically on peer-reviewed scholarship, drawing on about 90 books and articles from multiple disciplines, including political science, history, behavioral economics, military sociology, and social psychology. I have also considered evidence derived from diverse research methodologies, including quantitative evidence, historical case studies, and field and survey experiments. I reserve the right to modify or supplement my conclusions as additional information is made available to me or as I perform further analysis.

# I. Summary

- 9. Based on my analysis of the existing scholarship and evidence, I have formed three conclusions:
- 10. First, the evidence from quantitative data and historical case studies demonstrates that a diverse and inclusive military is critical for battlefield success. Diverse and inclusive militaries are typically more cohesive and lethal than their more exclusionary and discriminatory counterparts. Officers play a central role in fostering inclusive environments that allow soldier diversity to be harnessed for enhanced problem-solving and innovation on the battlefield.

Conversely, officers, if committed to exclusionary policies, can reinforce prewar discrimination or repression of targeted ethnic groups, throwing away the advantages of diversity and amplifying the negative effects of inequality within the military.

- 11. Second, inequality within the military itself ("military inequality") along ethnic and racial lines is detrimental to the core missions of the military, including lethality, force protection, and resilience under fire. Military inequality is defined as the degree to which a military draws on ethnic groups that are subject to state-based discrimination or repression; the higher the percentage, and the worse the treatment of these groups, the higher the military inequality. In wars since 1800, armies with high levels of inequality ("divided armies") experience higher casualties, greater frequency of mass desertion and defection from the ranks, exhibit a greater reliance on coercion to manufacture cohesion, and suffer higher rates of defeat on the battlefield.
- 12. Third, the Plaintiff's complaint contains both factual errors and mistaken historical judgements. I briefly focus on four issues: (1) the US military, far from being "colorblind," has a long, tortured, history of racial and ethnic tension and contestation within its ranks; (2) soldier identities are not rendered moot by combat conditions but indeed often shape the likelihood of survival on the battlefield; (3) the Plaintiff overlooks the role of officers as culture carriers and their role of providing the framework for inclusive, representative, leadership that maximizes the advantages of diversity; and (4) the complaint exaggerates the importance of social cohesion as a determinant of military effectiveness.
- 13. The remainder of this report discusses the empirical and analytical basis for my opinions. Section II details the nature of the modern battlefield and how diversity and inclusion can increase military effectiveness in the face of challenges. Section III outlines the adverse consequences of military inequality within armies, including how prewar discrimination and

repression along ethnic and racial lines can undermine a military's cohesion and combat power even before battle is joined. Section IV demonstrates how rising levels of military inequality are historically associated with poor battlefield performance. Section V details how military inequality determines other war-related outcomes, including whether an army will prove victorious and whether political leaders who initiated the war will be violently overthrown. Section VI marshals evidence from the study of peacekeeping, policing, and counterinsurgency operations to demonstrate how diversity and inclusion can improve performance in domains that resemble combat. Section VII concludes with an assessment of the Plaintiff's complaint.

# II. The Advantages of Diversity on Modern Battlefields

14. Modern combat is marked by a series of interlocking challenges that armies must overcome or, at the least, blunt, if they are to survive long enough to destroy or degrade enemy forces enough to compel their surrender or withdrawal. Since World War I, armies have been faced with weapons of increasing lethality and precision that have forced militaries to disperse their units to avoid detection and destruction. Successful units must learn to maneuver while hiding from the persistent stare of drones and other forms of modern surveillance. Officers and enlisted alike must handle large amounts of information yet still make rapid decisions under conditions of high uncertainty. Modern forces must be mobile, flexible, and team-based, able to integrate across multiple weapons platforms while coordinating with other (dispersed) units in a degraded communications environment. Given the complexity of modern war on display today in Ukraine and Gaza, and with accelerated technological change, successful armies must be staffed with soldiers capable of problem-solving and exercising independent judgement without constant

oversight in situations where mistakes are punished swiftly.<sup>1</sup>

15. Armies therefore have two central tasks: (1) to maintain cohesion while under extreme pressure and (2) maximize their lethality against enemy forces. We can therefore define battlefield performance as the degree to which a state's armed forces can generate and apply coercive violence against enemy forces in direct battle. This sparse definition has several properties. First, it casts battlefield performance as a trait of a particular military organization or its individual units. Combat provides the setting to observe relative performance, especially since combat represents the collision of opposing forces and their strategies, but performance here is strictly a function of how well the belligerent itself produces and applies coercive violence. Second, this definition concentrates on the tactical and operational levels of the battlefield. Performance cannot be deduced from battle outcomes; defining performance in terms of victory and defeat risks tautology.<sup>2</sup> Instead, this conceptualization draws our eye toward an army's ability to perform certain tasks at the battle level that contribute to victory. There may indeed be a correlation between battlefield performance and battle (or war) outcomes. But the empirical domain here is task completion in battles, which are defined as sustained fights between sizable armed formations of larger armies that aim at destroying enemy forces and securing some objective such as territorial conquest.

16. We should not assume that material strength translates into battlefield victories. In his 2004 book, *Military Power*, Stephen Biddle found that material factors such as GDP, population, and military spending have had, at best, a weak connection to victory in wars since 1900. In my own work examining 250 wars since 1800,<sup>3</sup> I found virtually no statistical correlation

<sup>&</sup>lt;sup>1</sup> On modern war, Biddle 2004; Watling 2024; Freedman 2024.

<sup>&</sup>lt;sup>2</sup> Millett and Murray 1988, 3.

<sup>&</sup>lt;sup>3</sup> Lyall 2020.

between the size of opposing armies and battlefield outcomes, including relative casualties, the likelihood of desertion and defection, or who eventually won. Given these results, it is perhaps unsurprising that much of the current debate among scholars over the sources of military effectiveness focuses on nonmaterial factors such as regime type, ideology, and culture, not relative material strength. Yet public debates outside the academy, including ones on the outcome of the war in Ukraine and Gaza, still privilege traditional indicators of relative material strength.

17. Instead, I argue that battlefield performance is dictated by how armies manage the diversity within their ranks. Existing theories of military effectiveness tend to write about armies as anonymous machines, faceless and uniform, but the reality is much more complicated. Ethnic and racial diversity has characterized military organizations for centuries. Rome, Carthage, Persia, and the Mongols all fielded multiethnic armies, often employing sophisticated policies of recruitment and battlefield deployment to maximize the advantages of ethnic diversity.<sup>4</sup>

18. Even ancient Greek phalanxes, sometimes cited as exemplars of the martial value of homogenous soldiery, were extraordinarily diverse. In one pioneering study, genetic tests from 54 soldiers from Classical Greek armies found evidence that soldiers had origins as distant as northern Europe and the Caucasus. Modern armies are also multiethnic mosaics. Since 1800, the typical army has entered battle with soldiers from an average of five different ethnic groups. Napoleon's Grande Armée contained more Poles, Germans, Italians, and Dutch than French soldiers during its fateful 1812 march to Moscow. The "Eight Banner" armies of Qing China integrated Han, Mongol, and Manchu populations and relied on numerous local auxiliaries.

<sup>&</sup>lt;sup>4</sup> See, for example, Hall 2023; Goldsworthy 2023; Favereau 2021; and Crowley 2012.

<sup>&</sup>lt;sup>5</sup> Reitsema et al., 2022.

<sup>&</sup>lt;sup>6</sup> Lyall 2020.

<sup>&</sup>lt;sup>7</sup> Zamoyski 2005.

<sup>&</sup>lt;sup>8</sup> Porter 2023.

France, Italy, and the United Kingdom all built colonial armies in which their own soldiers were minorities. During World War II, Nazi Germany deployed more than two million non-Germans from at least 20 different ethnicities on the Eastern Front. The "Russian" Red Army was no less diverse. To take one example, its 45th Rifle Division had soldiers from 28 ethnic groups when it decamped at Stalingrad in 1942.

Research has demonstrated that diversity confers at least four possible advantages -- a "diversity bonus" -- on modern battlefields. First, diverse teams typically outperform homogenous groups in problem-solving and decision-making, particularly for tasks with high complexity. Second, cognitive heterogeneity helps diverse teams innovate faster by introducing a wider array of ideas, debate, and communication styles. Third, teams with diverse perspectives and lived experiences may prove more resilient and adaptive in the face of unexpected challenges and uncertain environments. Finally, representation through diversity may enhance the military's legitimacy at home by illustrating how its values and behaviors are consistent with those of broader society. By contrast, militaries that become divorced from society may generate civil-military friction and societal apathy (or, worse, outright hostility) that hampers recruitment, retention, and, ultimately, combat power itself.

20. The benefits of diversity cannot be harnessed properly without inclusive institutions. Indeed, diversity can impose so-called "transaction costs" due to language barriers,

<sup>&</sup>lt;sup>9</sup> Fennell 2019.

<sup>&</sup>lt;sup>10</sup> Grasmeder 2021.

<sup>&</sup>lt;sup>11</sup> Page 2017. See also Slapakova et al., 2022 for a review of this literature.

<sup>&</sup>lt;sup>12</sup> Almaatouq et al., 2021; Bouncken et al., 2016; Li et al., 2017; Hong and Page 2004.

<sup>&</sup>lt;sup>13</sup> Soeters et al., 2017; Bouncken et al., 2016, Salazar et al., 2017.

<sup>&</sup>lt;sup>14</sup> Tshetshema et al., 2019; Pesch et al., 2015; Goodwin et al., 2018.

<sup>&</sup>lt;sup>15</sup> Heinecken et al., 2018.

<sup>&</sup>lt;sup>16</sup> Rosen 1996; Rosen 1995; Weiss et al., 2023.

intergroup antagonism, and reduced ability to cooperate on shared tasks. As we see below, diversity without equality can be dangerous within militaries. Given that militaries are reflections of their societies, the dilemma of managing diversity cannot be avoided. Soldiers are not blank slates; they enter military service, whether as conscripts or volunteers, with preexisting identities, group attachments, and histories of how state authorities have treated their specific group. High combat motivation cannot be taken for granted; instead, soldier resolve is variable, especially in conscript armies, and hinges partly on the relative status and treatment afforded to one's group by the state prior to military service. <sup>17</sup> How, and whether, militaries acknowledge these histories and work to build inclusive institutions helps determine will to fight and battlefield performance.

21. Officers therefore play an important role as a transmission belt between senior leaders and the rank-and-file. Officers are culture carriers; they provide the leadership and command climate that either allows diversity to flourish or, conversely, proves toxic to it. An officer corps that is broadly representative of military demographics holds promise of maximizing diversity's effects on decision-making while offering concrete evidence to all soldiers (and especially those from marginalized communities) that advancement is possible. Finally, officers can set the preconditions for intergroup contact among soldiers of different ethnicities that, if done correctly, can facilitate building interethnic bonds of trust that are the building block of resilient and lethal units on the modern battlefield.<sup>18</sup>

# **III.** The Perils of Military Inequality

22. Not every military harnesses the advantages of diversity for war-fighting. While nearly all armies are ethnically diverse, most are also riven by inequalities among the different

<sup>&</sup>lt;sup>17</sup> Rozenas et al., 2020.

<sup>&</sup>lt;sup>18</sup> On the importance of leadership during the US Army's "racial crisis" during Vietnam, see Bailey 2023.

groups that comprise the military. This inequality acts like a straitjacket, constraining armies from realizing the full potential of their material resources while creating new vulnerabilities that can be exploited by adversaries. While there are many types of diversity—ethnic, racial, gender, sexual, and class—I focus on ethnic and racial identities here.

- 23. What, then, is military inequality? The intuition here is simple: armies reflect their societies and are subject to the same social divisions. Analysts need to gather two pieces of information to estimate a military's level of inequality. They first need to map the size and composition of the social groups that make up the army. Historically, ethnicity has been a powerful source of potential division. Analysts next need to know how the state treats each group within its military. Some groups may be granted full rights and opportunities. Others, however, could be considered second-class citizens or, worse, could be subject to violent political oppression. The more an army is drawn from marginalized groups, and the more harshly those groups are treated by the state, the more unequal the force becomes—and the worse it performs on the battlefield.
- 24. More formally, I created the military inequality coefficient (MIC) that measures the level of inequality among ethnic and racial groups within the military on the eve of war. MIC captures the degree to which ethnic groups within the military enjoy full membership in the political community or, conversely, are subjected to state-directed collective discrimination or repression. Generated by a simple equation, <sup>19</sup> the MIC takes values from 0 (perfect equality) to 1 (perfect inequality). As discussed below, 1 represents the theoretical maximum amount of

 $<sup>\</sup>sum_{i=1}^{n} pt_{i},$ 

The formula is t=1 where p is an ethnic group's share of an army's prewar strength, t represents the regime's prewar treatment of each group, with possible values (0, 0.5, 1) denoting inclusion, collective discrimination, and collective repression, and n indicates the number of ethnic groups within the belligerent's forces.

inequality possible within a given army but one that is rarely approached in the real world. The equation itself is flexible: it can be applied equally to entire armies or individual formations within them. There are multiple paths to particular MIC scores, depending on how a belligerent has structured its army and treated its various ethnic groups. Values beyond the midway point of the MIC scale (about a 0.40) can only be attained when a belligerent has engaged in prewar repression of at least one of its army's constituent ethnic groups, however. Simply put, the larger the MIC, the higher the degree of inequality within the military.

- 25. To assess just how costly military inequality is for battlefield performance, I built a dataset, Project Mars, that maps ethnic division in the ranks of nearly 300 armies in 250 conventional wars since 1800. I then evaluated how well these militaries performed in battle, tracking how many casualties they suffered and inflicted, whether they were prone to mass defection or desertion, and whether they deployed specialized units to shoot their own retreating soldiers. Project Mars covers 229 unique belligerents fighting 250 conventional wars between 1800 and 2011. A team of 134 coders, combing through materials in 21 languages, worked for nearly seven years to construct and then stress-test a battery of new measures for inequality, battlefield performance, and alternative explanations.
  - 26. Military inequality undermines battlefield performance for at least four reasons.
- 27. First, inequality undercuts soldier beliefs that all groups share the same battlefield fate. More specifically, do soldiers believe that the consequences of the war's outcome, as well as the costs of fighting, will be shared equally across ethnic groups within the military? Do they share a common fate, or can the war's expected outcome be met with indifference since it will not alter

 $<sup>^{20}</sup>$  To see why, consider a belligerent that has drawn a maximal 80 percent of its army from an ethnic group that has suffered discrimination but no repression. The coefficient would be calculated (0.80\*0.5) + (0.20\*0) for the marginalized non-core and favored core group, respectively, generating a MIC of 0.40.

one group's relative status? Inclusive societies and armies are best positioned to draw a connection between the political community and the individual soldier, driving home the importance of fighting well for the common cause. Soldiers need not agree with the stated purpose for the war; instead, soldiers can draw a link between their performance and eventual war outcomes, and that these outcomes matter for the political community as a whole. Exposure to collective punishment, however, shreds the idea of a shared fate. Punishment hardens ethnic identities, bolsters group solidarity, and drives a wedge between the regime's efforts to proclaim a common cause and the non-core groups, who will increasingly challenge the legitimacy of the regime and its war aims. Cries of "not our war" capture this severing of non-core group interests from that of the broader political community. These doubts about the existence of a shared fate across ethnic groups produce several negative consequences for battlefield conduct.

28. The combat motivation of non-core soldiers plummets once non-core soldiers become convinced that their postwar fate will remain unchanged.<sup>22</sup> Why undertake costly and dangerous action on the battlefield for a regime that has denigrated their group and blocked their individual advancement within the army? Victory itself might be insufficient for the regime to recast its views of the political community and upgrade their relative status. Nor can regimes sitting astride identities credibly guarantee to honor the sacrifices made by non-core soldiers. Their incentives are to valorize the contributions of core soldiers while downplaying those of non-core soldiers, thus minimizing any possible status gains non-core groups might make. Second, and related, unequal treatment within the military reinforces existing grievances against the regime. Discrimination stokes a new round of dissatisfaction—collective violence, even deeper resentment

<sup>&</sup>lt;sup>21</sup> Moskos 1975, 297.

<sup>&</sup>lt;sup>22</sup> Following Lynn (1984, 34-35), I argue that prewar "sustaining" motivation carries into wartime to shape soldiers' combat motivation. On theories of morale, see especially Wilcox 2015, 4-14.

against the regime, and even less willingness to take risks on its behalf.<sup>23</sup> Past and present injustices thus collide to create motivation for non-core soldiers to subvert military authorities and to organize escape from the battlefield. Far from a will to fight, these soldiers, chafing at their unequal status, are primed by state policies to have a will to flee if these opportunities can be manufactured.<sup>24</sup> Finally, collective punishment erodes norms of fairness and reciprocity across core and non-core soldiers. Altruism, the willingness to contribute and sacrifice without expectation of material gain, becomes increasingly conditional in these environments as soldiers become unsure that non-coethnics will reciprocate.<sup>25</sup> Collective punishment thus encourages the crowding out of altruism in favor of in-group parochialism, leading non-core soldiers to believe that self-preservation rather than risk-taking should be the dominant framework for understanding one's role on the battlefield.

29. Second, inequality is corrosive to interethnic bonds and trust. Equality sets the preconditions for the development of strong bonds and bridges across soldiers drawn from different ethnic groups. Inequality, however, along with exposure to collective punishment, has the opposite effect: it inhibits the formation of interethnic bonds by eroding interethnic trust. Soldiers from lower status ethnic groups with firsthand experience of discrimination or repression at the hands of core soldiers will find it difficult to trust non-coethnic soldiers. Stereotypes, prejudices, and grievances combine to form a noxious brew that inhibits the formation of interethnic trust. In turn, low levels of trust deter interethnic cooperation, reducing the ability of units or formations to reach assigned goals cooperatively. Ethnic mistrust lowers task cohesion within a given unit or army.<sup>26</sup> Indeed, evidence from behavioral experiments indicate that exclusionary attitudes toward other

<sup>&</sup>lt;sup>23</sup> On the connection between exposure to violence and risk taking, see Jakiela and Ozier 2019.

<sup>&</sup>lt;sup>24</sup> For a survey of the vast literature on will to fight, see McNerney et al., 2018.

<sup>&</sup>lt;sup>25</sup> Bowles 2016.

<sup>&</sup>lt;sup>26</sup> I view inequality as reducing social cohesion of a unit, thereby also reducing task cohesion, so the distinction is somewhat artificial between the two. For a review, see Maccoun 1993; Maccoun 2006; Cohen 2016, 26-28.

groups not only predict prejudicial behavior but that individuals from high-status groups are willing to forgo gains to maintain their position in the hierarchy.<sup>27</sup> As a consequence, the growth of ethnic mistrust within divided armies can lead to suboptimal behaviors that undermine battlefield performance.

30. Mistrust, for example, can restrict information flows across core and non-core groups by crowding out opportunities to share news and rumors. Even modest amounts of hesitancy in sharing information has been shown to have major implications for how quickly news travels through networks, especially if individuals are drawn from different ethnic groups. 28 In particular, unwillingness to share across ethnic lines reduces the speed of information-sharing, creating battlefield vulnerabilities. A unit's reaction time to surprises, for example, can be lengthened if soldiers are not sharing information or if commanders do not trust their non-core soldiers with critical information. Ironically, initial mistrust may be compounded by commanders who, seeking information about their non-core soldiers, may order enhanced monitoring, heightening mistrust even further. Low interethnic trust, along with pervasive stereotypes unchallenged by new information, also undercuts interethnic cooperation by lowering willingness to work with noncoethnics. Both sides clearly benefit from cooperating to produce military power. Yet mistrust can lead to the underprovision of both combat power and cohesion as parochial biases lead to suboptimal solutions for complex battlefield problems. This mistrust is not necessarily a function of ethnic or linguistic diversity. Instead, its origins lie in the nature of the state's prewar treatment of non-core groups and their relative position in the reigning status hierarchy. Soldiers can be

<sup>&</sup>lt;sup>27</sup> Enos and Gidron 2018; Hainmueller and Hangartner 2013.

<sup>&</sup>lt;sup>28</sup> Larson and Lewis 2017.

ordered to cooperate, of course, but such cooperation may be partial, slipshod, and accompanied by foot-dragging not found among inclusionary armies.

- 31. Generalized mistrust also leaves divided armies unable to access one of the most powerful benefits of inclusion: the diversity bonus. Organizations that possess diversity of identities prove more adept at complex problem-solving because they are able to harness different life experiences and mental models. Identity diversity tracks closely with the creation of new conceptual approaches and tools while also reducing the risk of groupthink. Diverse teams are also better at innovation as well as predicting future patterns and outcomes.<sup>29</sup> Given its highly complex nature, combat is another arena in which diversity could reap dividends. Ethnic mistrust, however, destroys the culture of a shared mission (or fate) that is required to motivate soldiers and teams to collaborate in collective problem-solving. Moreover, the top-down nature of military authority, coupled with prevailing status hierarchies, also means that there are few outlets for input into decision-making by members of lower-status ethnic groups. The steeper the inequality, the smaller the incentive to invest in developing new innovative tactics or promoting new solutions since they might upend the existing hierarchy. Mistrust, then, is corrosive of both task cohesion and complex problem-solving, leaving divided armies vulnerable to quick changes on the battlefield.
- 32. Third, prior exposure to discrimination or repression by state authorities strengthens intra-ethnic bonds, making it easier for targeted groups to organize collective action designed to subvert military authorities. Violence, in particular, not only increases in-group solidarity through shared experiences but also alters the density of ties between coethnics. That is, violence can rewire coethnic networks by increasing the ratio of links between individuals to the total number that

<sup>&</sup>lt;sup>29</sup> Page 2017, 5-15, 214.

could possibly be present among coethnic individuals.<sup>30</sup> The formation of denser ties acts partly as a defense mechanism, allowing information, including rumors, to flow faster and more freely between coethnics. Denser in-group ties, coupled with mistrust of non-coethnics, accelerate the sharing of information within a group, improving intraethnic coordination.<sup>31</sup> Born from state-directed violence, information asymmetries between targeted coethnics and their non-coethnic minders can organize more responsive and larger collective action than might have otherwise obtained. Robust networks therefore enable intraethnic coordination around non-cooperative behavior that can subvert battlefield performance.

33. More specifically, these dense networks produce at least three wartime effects. First, they improve the ability of targeted ethnic groups to police their own members.<sup>32</sup> Dense network ties can thwart the leakage of sensitive information about planned collective acts like desertion to non-coethnics by increasing the likelihood that any would-be leaker would be identified and quickly punished by coethnics. The deterrent effect of network ties in turn boosts the odds of successful coordinated subversive acts against military authorities. Second, these ties enable a larger number of soldiers to participate in collective disobedience. State violence supercharges mass indiscipline; under these conditions, desertion or defection will involve sizable groups of soldiers, and sometimes whole units, rather than one or two opportunistic soldiers. These ties act as highways of information about recent battlefield outcomes, prior successes in abandoning the fight, anticipated punishment for trying, and impending attacks or other emerging opportunities that might precipitate preemptive desertion or defection. Taken together, this information all

<sup>&</sup>lt;sup>30</sup> Larson and Lewis 2017, 356.

<sup>&</sup>lt;sup>31</sup> On the crippling effect that hesitancy to share across ethnic lines can have on the diffusion of information within networks, Larson and Lewis 2017, 351.

<sup>&</sup>lt;sup>32</sup> Fearon and Laitin 1996.

increases the odds of successful mass indiscipline among non-core soldiers. Finally, these ties increase the difficulties that military authorities face in tracking soldier attitudes and sanctioning their behavior. As military inequality increases, divided armies will be forced to invest heavily in surveillance and other monitoring mechanisms to counteract the strengthening of coethnic ties that are themselves the legacy of prior state punishment.

- 34. Finally, military inequality forces militaries to adopt inefficient policies designed to monitor and suppress their own forces to prevent poorly motivated soldiers from fleeing or shirking. Politicians and commanders are not blind to the drawbacks of incorporating non-core soldiers in the ranks. True, they may lack complete information about the magnitude of these problems, especially without recent wartime experience as a benchmark for future performance. Still, it is plausible that they retain a sufficiently nuanced assessment of their own capabilities and shortcomings to enter war with reasonably accurate expectations about their performance. Indeed, we know commanders are concerned about these inequality-induced problems because they invest in battlefield management strategies designed to mitigate or hide the weaknesses of their divided armies.
- 35. In particular, military commanders have historically adopted four broad strategies for increasing the cohesion of their armies. These include: manipulating the ethnic composition of their units to find an appropriate balance between core and non-core soldiers; hiding (or "masking") the location of non-core soldiers on the battlefield; sanctioning commanders for perceived battlefield failure; and fratricidal violence designed to generate cohesion through fear of punishment.<sup>33</sup> These strategies share the same basic flaw: they all represent second-best solutions

<sup>&</sup>lt;sup>33</sup> Considerable resources can also be poured into maintaining segregationist policies while in combat. The US Army enforced Jim Crow laws on overseas bases, forcing the duplication of mess halls, barracks, and even motor pools to keep White and Black soldiers separate, even on the frontlines. Guglielmo 2021.

to the problem of fielding lethal, coherent, armies. Compared to inclusive armies that have little need for such efforts, belligerents with divided armies are forced to adopt these measures to ensure that their armies arrive and fight on the battlefield as cohesive entities. Doing so, however, carries significant downside risk, and even in the best case, these strategies impose constraints on tactical and operational choices that diminish combat power. As Stephen Rosen has noted, some states choose "to be less powerful than they otherwise might be,"<sup>34</sup> a situation that neatly describes belligerents with high levels of inequality. The sometimes ponderous, even tortured, nature of these battlefield strategies is the direct result of trying to generate combat power within the constraints imposed by military inequality. The higher the inequality, the more severe these battlefield management strategies become, and the farther the belligerent is pushed away from reaching its fullest potential on the battlefield. In short, these strategies may prevent belligerents from crashing into the basement of their (worst) battlefield performance, but at the cost of ensuring that they never reach their ceiling of (best) performance, either.

# IV. Military Inequality Undermines Battlefield Performance

- 36. Military inequality is associated with at least five negative outcomes on the battlefield in modern war. I draw on Project Mars data as well as historical examples to illustrate these trends.
- 37. Table 1 summarizes the battlefield performance of 825 belligerents in 250 conventional wars fought from 1800 to 2011. These belligerents are arrayed from low to extreme levels of military inequality. Four measures of battlefield performance are provided: (1) whether the belligerent suffered greater losses than it inflicted on enemy forces (known as a loss-exchange

<sup>&</sup>lt;sup>34</sup> Rosen 1995, 6.

<sup>&</sup>lt;sup>35</sup> On the distinction between combat potential and available combat power, see Dubois 1997, 74.

ratio, or LER);<sup>36</sup> (2) whether the army suffered mass desertion from its ranks;<sup>37</sup> (3) whether it suffered mass defection from the ranks;<sup>38</sup> and (4) whether commanders ordered the use of specialized blocking detachments to coerce their soldiers to fight through fear of lethal punishment.<sup>39</sup> Rising levels of inequality are associated with worsening battlefield performance across all four measures.

Table 1: Descriptive Statistics: Battlefield Performance by Bands of Military Inequality, 1800-2011.

Level	Inequality	Battlefield Measures					
	Mean Military Inequality Coefficient	Number of Ethnic Groups in Army	LER Below Parity	Mass Desertion	Mass Defection	Blocking Units	Number of Armies
Low	0.079	4.22	24.6% (115)	21.1% (99)	8.3% (39)	9.4% (44)	467
MEDIUM	0.286	5.57	45.4% (98)	43.5% (94)	24.5% (53)	24.1% (52)	216
High	0.461	5.67	66.1% (78)	68.6% (81)	40.7% (48)	33.1% (39)	118
Extreme	0.651	4.50	75.0% (18)	95.8% (23)	45.8% (11)	45.8% (11)	24
Mean	0.205	4.79	37.5% (309)	36.0% (297)	18.3% (151)	17.7% (146)	825

38. We can also test the relationship between military inequality and battlefield performance more rigorously using statistical analysis. Figure 1 uses these statistical results to illustrate how a belligerent's rising inequality (the X-axis) increases the probability (the Y-axis) of observing our four indicators of battlefield performance. Each army in Project Mars is represented by a circle. In the top-left panel, we observe that increasing levels of military inequality are associated with a sharp increase in the likelihood that the belligerent will experience a loss-exchange ratio below parity. At low levels of inequality, belligerents have only a 25 percent likelihood of suffering more casualties than they inflict on enemy forces. At the midpoint of military inequality (about a 0.4), that likelihood has doubled to over 50 percent. At extreme levels

<sup>&</sup>lt;sup>36</sup> Formally, loss-exchange ratios are calculated as the number of enemy soldiers killed by a belligerent divided by the number of soldiers lost by that belligerent to enemy fire.

<sup>&</sup>lt;sup>37</sup> Mass desertion occurs when >10 percent of a belligerent's fielded force engaged in unauthorized wartime withdrawal from the battlefield or adjacent rear area with the intention of permanently abandoning the fight.

Mass Defection occurs when >10 percent of a belligerent's fielded force switched sides during the war with the intention of taking up arms against their former comrades.

<sup>&</sup>lt;sup>39</sup> Lyall 2017.

(say, at 0.8), we find it becomes a near certainty that belligerents will suffer a loss-exchange ratio below parity. The same S-curve pattern repeats for the probability of mass desertion (top-right panel), the use of blocking detachments to coerce and kill one's own soldiers (lower-right panel), and the outbreak of mass defection (lower-left panel). These now-familiar S-curves persist even if we divide Project Mars into two historical periods (1800-1917, 1918-2011) to reflect changes in warfare. Note, too, that these statistical models control for variables typically used to explain battlefield performance, including the relative size of armies, distance to the battlefield, and the nature of their political systems, among others.

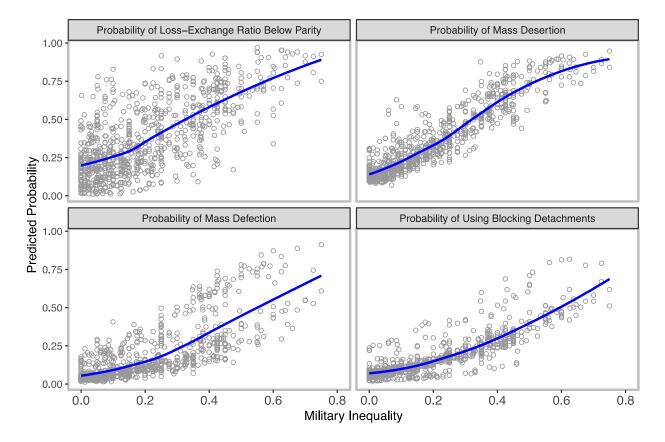


Figure 1. Military Inequality and the Predicted Probability of Poor Battlefield Performance, 1900-2011

39. Historical examples of high inequality belligerents with poor loss-exchange ratios abound. Consider, for example, the crushing defeat of a 60,000-strong Mahdist army by a much smaller Anglo-Egyptian force at Omdurman, in what today is Sudan, in 1898. In one brief but decisive battle, the Mahidiya lost 227 soldiers for every one casualty it inflicted on a combined British-Egyptian-Sudanese force, one of the worst recorded loss-exchange ratios in history. That lopsided victory is typically ascribed to the superiority of Western military technology at the time, above all an early type of machine gun, the Maxim, that decimated the Mahdist forces. But that account misses another critical factor: the sky-high inequality in the ranks of the Mahdist military. The leader of the Mahdist state, the khalifa, ruled atop a narrow ethnocracy and had unleashed repeated waves of violence against his own people. His military was largely composed of repressed ethnic groups and tribes, half of which deserted or defected well before Omdurman. Special units of regime loyalists forced the reluctant soldiers that remained into battle. Small wonder, then, that they fared so poorly. 40

40. The American Civil War offers historical evidence of the link between military inequality and mass desertion. An analysis of personnel records from millions of Union soldiers reveals that unit homogeneity was one of the best predictors of mass desertion. The more a unit was dominated by a single ethnic group, the greater its odds of suffering desertion. Moreover, the highest rates of desertion were recorded among foreign-born Irish and German soldiers; that is, among soldiers who were treated as second-class citizens and faced systematic discrimination both within the Union Army and in broader society. New research now suggests that the presence of pro-abolitionist "Forty-Eighters" who championed a more inclusive vision of the United States

<sup>&</sup>lt;sup>40</sup> Lyall 2020.

<sup>&</sup>lt;sup>41</sup> Costa and Kahn 2003; Costa and Kahn 2006; Costa and Kahn 2008; Bearman 1991.

could mitigate desertion somewhat. Indeed, the presence of even a single Forty-Eighter in a unit was enough to increase enlistment by two-thirds while also reducing desertion rates by 30 percent during the war.<sup>42</sup>

41. Mass defection, though less frequent than mass desertion, has also torn at the fabric of armies throughout history. During the War of 1812, fought between the United States and the United Kingdom, American commanders encouraged desertion from already undermanned British naval forces by playing upon Irish anti-British grievances—as well as promising "cheap alcohol"—to pry them from military service. British officers returned the favor by targeting the fault-line in American society between white Americans and African-American slaves. Promoting desertion among Black auxiliaries as well as chattel slaves became a cornerstone of British strategy to fan the flames of a wider slave revolt. Defectors who managed to reach British ships were mustered into a Corps of Colonial Marines that scouted and fought in several major battles. Autocratic armies, too, experience mass defection. Millions of repressed Ukrainian and Belorussian soldiers defected to the Nazi side after its June 1941 invasion of the Soviet Union, seeking revenge against the hated Stalinist regime. 44

42. As armies climb the ranks of military inequality, they increasingly turn to specialized units to coerce their own soldiers to fight. The Red Army, desperate to hold itself together in the face of the June 1941 Nazi invasion, fielded blocking detachments behind their own soldiers to prevent their flight or desertion. Rifle Divisions staffed by soldiers from marginalized groups—Kazakhs, Ukrainians, Belarusians, and inhabitants of the Caucasus, among others—were especially targeted by blocking detachments given their perceived disloyalty. In total, Soviet

<sup>&</sup>lt;sup>42</sup> Dippel and Heblich 2021.

<sup>&</sup>lt;sup>43</sup> Taylor 2014, 198.

<sup>&</sup>lt;sup>44</sup> Edele 2017.

authorities would kill an estimated 168,000 of their own soldiers, a brutal legacy of trying to prosecute the war effort with a divided army where nearly half of all infantry were drawn from persecuted non-Russian minorities. Such practices have not been consigned to the rubbish bin of historical oddities. Today's Russian Army has also deployed blocking detachments to support its invasion of Ukraine in February 2022. Once again, ethnic and class inequalities within the Russian Army sapped morale, leaving soldiers from "second-class" regions like the Northern Caucasus or "peripheral" enclaves outside Russia's main cities unwilling to fight Moscow's war.

43. Historical evidence also suggests that as military inequality increases, an army's ability to implement flexible tactics or creative battlefield operations flatlines. Low levels of trust between officers and enlisted, or among the enlisted themselves, hampers coordination and communication. Information-sharing slows down; battlefield initiative is suppressed due to low morale and a desire to avoid further punishment if unproven tactics fail. As a result, divided armies become dangerously predictable, creating vulnerabilities that can be exploited by adversaries. One hallmark of high inequality armies is their reliance on brutal "cannon-fodder" style frontal assaults since they lack the trust and decentralized authority necessary to implement combined arms operations. Corruption, too, blooms in high inequality armies, as officers abuse their power to steal from their own soldiers. It is easy, after all, to scrimp on maintenance and equipment or to steal wages if officers view their soldiers as beneath them. Such impropriety further cripples military effectiveness by diverting resources, locking armies into suboptimal tactical choices. 46

<sup>&</sup>lt;sup>45</sup> Lyall 2017; Lyall and Zhukov 2023.

<sup>&</sup>lt;sup>46</sup> Lyall 2020.

# V. Military Inequality Has Adverse Effects Beyond the Battlefield

44. The negative effects of military inequality stretch far beyond the battlefield itself. In perhaps the most graphic example, high rates of military inequality are associated with a belligerent losing the war itself. In a statistical analysis using new Project Mars data, military inequality increased the likelihood that a belligerent suffered defeat in both the pre-modern (1800-1917) and modern (1918-2011) eras of warfare across 252 different conflicts.<sup>47</sup> Traditional measures of military power, including the size of the opposing forces and the nature of each belligerent's political system, have little explanatory weight by contrast. These results hold true even if we use different measures for power, regime type, and inequality, along with alternative datasets, including the Correlates of War Inter-State War dataset. <sup>48</sup> In an earlier but complementary analysis, a team of economists linked rising income inequalities to wartime defeat in conflicts after 1945. <sup>49</sup>

45. Military inequality can also compromise the survival of political leaders. Drawing on new Project Mars data, I analyzed the violent overthrow of 272 leaders to examine whether military inequality contributed to their removal during war or in its immediate aftermath for 252 wars. I found that as a belligerent's military inequality increased, so too did the probability that its political leader would experience a violent overthrow by foreign armies during the war. In addition, the higher the level of military inequality, the faster the political leader suffered violent removal. During the pre-modern era of war, we observe a three-fold increase in the odds of violent removal. Those odds jump to a nearly five-fold increase in the probability of experiencing violent removal

<sup>&</sup>lt;sup>47</sup> Downes and Lyall 2023.

<sup>&</sup>lt;sup>48</sup> Correlates of War Inter-State War Dataset, Version 4.0.

<sup>&</sup>lt;sup>49</sup> Galbraith et al., 2007.

<sup>&</sup>lt;sup>50</sup> Lyall 2023.

by foreign enemies in the modern era of warfare. Figure 2 displays this graphically, comparing belligerents with low, medium, and high levels of prewar inequality and the likelihood of experiencing wartime (left panel) and postwar (right panel) violent overthrow; duration is measured in days. Military inequality also hurts the chances that a political leader will escape a gruesome fate in the postwar era (defined as up to two years after the war has concluded), though the effect is more muted than wartime since his divided army is no longer on the battlefield. These results are robust to alternative measures and datasets, including the prominent Correlates of War Inter-State War dataset.

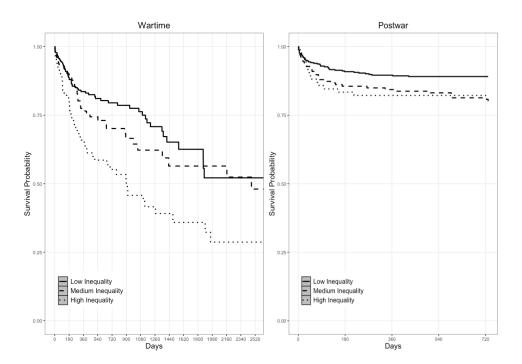


Figure 2. Survival probability in days of political leaders, by level of military inequality, during wartime (left panel) and two years after war (right panel). In each time period, high inequality is associated with a lower probability of leader survival.

46. A mismatch between the ethnic composition of a military, especially its officer corps, and a country's leadership can also prove destabilizing politically. Ethnic stacking, the

practice of favoring certain groups and marginalizing or excluding others to retain political power, has been linked to coup attempts, stalled democratic consolidation, and autocratic consolidation in Africa. Decisions to rig the ethnic composition of armies around a single favored group are particularly dangerous; they often provoke resistance, including coup attempts, by threatened officers seeking to maintain the ethnic status quo. Moreover, ethnic exclusion from important state institutions, including the military, can foster group grievances that motivate rebellion and civil war. Military mutinies and decisions to crackdown on civilian protesters have also been linked to the ethnic composition of security forces and their relationship to both political elites and wider society.

47. Soldiers from marginalized or repressed groups eventually return home after their military service concludes. Here, too, we see dramatic examples of military inequality affecting the nature of postwar political life. Black soldiers who served during the World Wars would become the basis for the civil rights movement in the United States, using their mobilization skills, wartime networks, and hard-won battlefield confidence to organize for political equality. <sup>54</sup> In some cases, however, the return of marginalized soldiers generates new conflict. An extreme example of this dynamic is offered by returning veterans who served in the Russian Imperial Army during World War I. Using multiple datasets containing millions of individual records on the Russian Imperial Army conscripts of WWI, soldiers of the revolutionary Red Army, and state-backed Imperial White Guard of the Russian Civil War, a new study examines whether WWI veterans from ethnic minority groups were more likely to rebel against the Tsar. Indeed, soldiers from

<sup>&</sup>lt;sup>51</sup> Allen and Brooks 2023.

<sup>&</sup>lt;sup>52</sup> Harkness 2018; Harkness 2016; Enloe 1980.

<sup>&</sup>lt;sup>53</sup> Cederman et al., 2013; Roessler 2016.

<sup>&</sup>lt;sup>54</sup> Delmont 2022; Conwill 2019; Parker 2009.

marginalized groups, along with inhabitants of ethnically diverse districts that suffered Tsarist repression, were more likely to join revolutionary forces to fight against the Russian empire. Ethnic Russians, by contrast, were more likely to join state forces during the Russian Revolution.<sup>55</sup>

# VI. Additional Evidence from Related Fields

48. We can also use analogous contexts to modern combat to examine how diversity and inclusion affect mission performance. I consider three fields of study here: (1) peacekeeping; (2) policing; and (3) counterinsurgency operations.

49. Evidence from United Nations peacekeeping since 1945 suggests that greater levels of ethnic diversity at the mission and unit level is associated with improved performance across multiple indicators. Scholars have found that more diverse units are more likely to be perceived by locals as impartial actors relative to units from a single contributing country. <sup>56</sup> This impartiality can defuse communal violence. In Mali, for example, contact with diverse peacekeeping units led to improved perceptions of government legitimacy and a higher willingness to cooperate with other ethnic groups relative to those citizens who never encountered a UN patrol or who only met French peacekeeping detachments. <sup>57</sup> Peacekeeping units who draw soldiers from culturally similar, often neighboring, countries, are associated with increased perceptions of intergroup trust among citizens during and after civil war. <sup>58</sup> The presence of highly diverse UN patrols has also been linked to reduced battle-related deaths and one-sided attacks during civil war as well as substantial improvements in the protection of civilian lives. <sup>59</sup> Missions that include female peacekeepers are also associated with reductions in sexual abuse and exploitation of locals by UN soldiers relative

<sup>&</sup>lt;sup>55</sup> Talibova 2023.

<sup>&</sup>lt;sup>56</sup> Howard 2019; Nomikos 2022. For a review, see Walter et al., 2021.

<sup>&</sup>lt;sup>57</sup> Nomikos 2022; Nomikos 2023.

<sup>&</sup>lt;sup>58</sup> Howard 2019.

<sup>&</sup>lt;sup>59</sup> Bove and Ruggeri 2016; Bove et al., 2019; Bove et al., 2020.

to male-only units.<sup>60</sup> While high levels of diversity can create coordination and organizational challenges,<sup>61</sup> these conflict-reducing and stability-improving effects persist even in contexts marked by high violence by government and non-state actors.

elsewhere that officer diversity is associated with improved community relations, perceptions of police fairness, and fewer officer-initiated shootings. <sup>62</sup> In one recent study, researchers linked millions of daily patrol assignments in Chicago with patrol officer demographics to show that Hispanic and Black officers make far fewer stops and arrests, and use less force, than white officers, especially against Black citizens, despite facing similar circumstances. Hispanic officers in particular resorted to enforcement at far lower rates. Female officers of all races also used less force than male counterparts. <sup>63</sup> In Iraq, citizens reported feeling most secure when policed by mixed Sunni-Shia patrols. They also were less likely to view government service provision as biased and were less expectant of future harm by police officers. When informed of the mixed nature of these patrols, Sunni survey respondents reported less willingness to use violence against the government than those who believed the police was staffed solely by Shia. <sup>64</sup> Notably, the absence of diversity within elite units like SWAT forces has been linked to a high risk of extreme right-wing radicalization. <sup>65</sup>

51. Conventional wisdom, along with official US military doctrine, now dictates that success in counterinsurgency wars like Afghanistan and Iraq hinges on the degree to which armies

<sup>&</sup>lt;sup>60</sup> Karim and Beardsley 2016; Karim and Beardsley 2017.

<sup>&</sup>lt;sup>61</sup> A recent study suggests that linguistic diversity might interact with the diversity of unit types (e.g., infantry, aviation) in a given mission to condition the local effectiveness of UN patrols against certain types of violence (Dworschak 2022). See also Efrat 1999.

<sup>62</sup> Riccucci et al., 2014; Miller and Segal 2019; Peyton et al., 2019.

<sup>&</sup>lt;sup>63</sup> Ba et al., 2021.

<sup>&</sup>lt;sup>64</sup> Nanes 2021.

<sup>&</sup>lt;sup>65</sup> Koelher 2022.

can acquire reliable information ("tips") from local citizens. <sup>66</sup> Ethnic diversity within units can aid in this task by bringing language skills, cultural awareness, and experience working in mixed teams to the challenge of winning over "hearts and minds" of a wary population. <sup>67</sup> These same skills are essential when working with local partners, including militia formations, to root out insurgent networks. <sup>68</sup> In a similar vein, foreign assistance missions tasked with (re)building armies, as in Iraq and Afghanistan, require a high degree of local cultural knowledge to earn the trust of key stakeholders. Diversity within training teams is therefore an asset that can help advisors maintain basic oversight over local partners. Without it, these missions typically fail, as poor oversights and the absence of strong trainer-trainee bonds lead to corruption, the erosion of combat motivation, and high desertion rates among would-be allies. <sup>69</sup>

# VII. Review of Plaintiff's Memorandum of Law

- 52. The Plaintiff's Memorandum of Law contains several important errors of fact and interpretation. I discuss four issues below.
- 53. The Plaintiff asserts that the US armed forces has historically been a "colorblind" institution where "racial animosity" was "negligible" prior to 1967 and "virtually nonexistent" in the post-Vietnam era. Compl. ¶ 47. In this telling, "racial unrest" only occurred during the height of the Vietnam War (1969-72). Two points bear emphasizing. First, far from a colorblind organization, the US armed forces has been segregated for the bulk of its existence. Indeed, non-White soldiers were formally banned from the US military by the 1792 Federal Militia Act and only began serving officially, albeit in still segregated units, during the Civil War. Segregation

<sup>&</sup>lt;sup>66</sup> Counterinsurgency Field Manual 3-24 (2007).

<sup>&</sup>lt;sup>67</sup> Lyall 2010; Lyall et al., 2015; Johnson and Zellen 2020; Tripodi 2020.

<sup>&</sup>lt;sup>68</sup> Malkasian 2016.

<sup>&</sup>lt;sup>69</sup> Joyce 2022; Chinchilla 2023.

continued until the Korean War, though it would not be until the Vietnam War that units were truly integrated. Second, the Plaintiff's historical narrative misses how racial tension and conflict within the US military created the impetus for the greater, if gradual, inclusion of non-White soldiers. Protests during the Civil War, for example, led Congress to finally authorize equal pay for white and black soldiers in June 1864. Hundreds of wildcat strikes at military bases and factories throughout the US during 1944 created momentum to loosen Jim Crow practices on military installations at home and abroad. Continued reliance on Southern white officers to command all-black units during the Korean War led to a "black soldier, white army" dynamic marked by soldier protests, low morale, and sometimes open conflict that undercut military readiness. In short, the US military has a long history of racial tension and conflict; progress toward a more inclusive and diverse armed forces has been halting and hard-won.

54. The Plaintiff also asserts that "battlefield realities apply equally to all soldiers regardless of race, ethnicity, or national origin," Compl. ¶3, and so policies that consider race are pointless. Yet substantial evidence demonstrates that soldiers do not face the same risks in battle; indeed, these risks are often determined by their identity. Black soldiers faced greater danger in surrender during the Civil War than white soldiers given uncertainty that Confederate forces would take prisoners or treat them humanely. Russian prisoners of war faced far higher mortality rates in German POW camps during WWII than did British or American soldiers. In some cases, soldiers are deliberately withheld from combat duties, preventing them from even experiencing battlefield realities (as Black soldiers experienced in WWI). In other cases, soldiers from ethnic groups suspected of disloyalty might be used in cannon fodder frontal assaults that lead to

<sup>&</sup>lt;sup>70</sup> Varon 2019; Silkenat 2019; Costa and Kahn 2006, 939.

<sup>&</sup>lt;sup>71</sup> Kay 2021.

disproportionately higher casualties. Segregationist policies and their legacy during the Korean War shaped the distribution of Black and White casualties within the US Army, with high casualty periods for White units followed by high casualty periods for Black units. The burden of casualties, in other words, is not born equally within armies.<sup>72</sup> The nature of military service, exposure to battlefield risk, and treatment if captured all hinge on soldier identity; for many divided armies, soldiers neither share the same burden of combat nor enjoy equal rights in the eyes of opponents.

55. The Plaintiff maintains that "America's enemies do not fight differently based on the race of the commanding officer opposing them." Compl. ¶3. This, too, is historically inaccurate. Units suffering from ethnic and racial inequalities have often been singled out by opposing commanders for special treatment on the battlefield. Propaganda efforts, whether by the British during the War of 1812 or the Chinese during the Korean War, have been targeted at mixed American units (and their white commanders) to exploit perceived ethnic and racial divisions in the hopes of encouraging desertion. Historically, military planners have also tailored their tactics to the identity of a unit's commander in the hopes of tearing apart units. During WWI on the Eastern Front, Russian commanders specifically targeted (German) Austro-Hungarian officers—highly visible due to their distinctive dress—to create confusion within ethnically heterogenous units by removing the only individuals who could speak all the unit's languages. Slavic officers, by contrast, were often spared in the hopes that they would spearhead mass desertion from the ranks.

56. The Plaintiff contends that no evidence exists to support the contention that members of the same ethnicity or race (the "in-group") trust each other more than non-coethnics (the "out-group"). Compl. ¶ 52. Yet a mountain of evidence gathered over decades of research has

<sup>&</sup>lt;sup>72</sup> Kriner 2016.

<sup>&</sup>lt;sup>73</sup> Taylor 2014; Hong 2017.

<sup>&</sup>lt;sup>74</sup> Watson 2014, 281.

demonstrated that in-group biases are a pervasive feature of social life, including during wartime.<sup>75</sup> To be sure, these biases can be attenuated; a "band of brothers" can be forged through combat, at least under certain conditions.<sup>76</sup> But these conditions are quite specific. Building social cohesion and transcending these in-group biases requires inclusive leaders to set the preconditions for bond formation; a high degree of official support for intergroup bond formation; formal equality among soldiers; and a sizable presence of marginalized soldiers within the unit to prevent lone individuals from being viewed as "tokens."

57. Even when these conditions are present, any bonds formed may be short-lived in nature, receding once the moment has passed or soldiers redeploy to rear areas.<sup>77</sup> Foundational work that claimed the formation of these intergroup bonds were also based on conscript armies, not today's volunteer armies. It stretches the evidence beyond the breaking point to claim that intergroup bonds automatically form during combat. Hundreds of units in dozens of armies have collapsed in combat precisely because they could not overcome prior group attachments or, in many cases, used their group ties to escape military service.<sup>78</sup> Finally, most scholarship now argues that it is task cohesion, not social cohesion, that generates combat power. Put simply, it is the ability of soldiers to complete complex tasks, not whether they have affinity for one another, that determines military effectiveness.<sup>79</sup> The Plaintiff's conjectures about the drivers of military effectiveness are based on an outmoded notion of how combat power is created and the dubious

<sup>&</sup>lt;sup>75</sup> For example, see Allport 1954; Tajfel 1970; Sidanius and Pratto 1999, Alesina 1999; Habyarimana et al., 2009; Lyall 2015.

<sup>&</sup>lt;sup>76</sup> Shils and Janowitz 1948.

<sup>&</sup>lt;sup>77</sup> Guglielmo 2021.

<sup>&</sup>lt;sup>78</sup> Lyall 2020; Lehmann and Zhukov 2019.

<sup>&</sup>lt;sup>79</sup> Spindel and Ralston 2020; Maccoun 2006; Kier 1999. For a review, see Berkovich 2017.

assumption that combat automatically creates a band of brothers mentality that overcomes any ethnic or racial differences.

Dated: Hanover, New Hampshire November 22, 2023

JASON LYALL

# APPENDIX A

### JASON LYALL

James Wright Chair in Transnational Studies Associate Professor of Government Director, Political Violence FieldLab Dartmouth College | O jaylyall

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### RESEARCH INTERESTS

Political violence, inequality, civil war, aid in conflict settings, international security, battlefield performance, causal inference, experiments, and Afghanistan.

### **APPOINTMENTS**

### Dartmouth College

- Associate Professor of Government, Department of Government (July 2019-)
  - James Wright Chair in Transnational Studies (July 2019-)
  - Director, Political Violence FieldLab (July 2019-) & Speaker Series (July 2019-)
  - Faculty Associate, John Sloan Dickey Center for International Understanding (July 2019-)
  - Faculty Affiliate, Program in Quantitative Social Science (Jan 2021-)

### Yale University

- Associate Professor of Political Science (untenured), Yale University (July 2013-June 2019). - Founder/Director, Political Violence FieldLab. (September 2015-June 2019).
- Assistant Professor of Political Science, Yale University. (July 2010-June 2013).
- Postdoctoral Research Associate, Dept. of Political Science, Yale University (August 2009-June 2010).

### Princeton University

- · Assistant Professor of Politics and International Affairs, Department of Politics and Princeton School of Public and International Affairs, Princeton University (July 2005-July 2009).
- Instructor of Politics and International Affairs, Department of Politics and the Princeton School of Public and International Affairs, Princeton University (July 2004-June 2005).

### **EDUCATION**

Cornell University. Ph.D., Government. June 2005.

- Dissertation: Paths of Ruin: Why Revisionist States Arise and Die in World Politics
  - Winner of the 2007 Helen Dwight Reid Award for the best dissertation in international relations, law, and politics, American Political Science Association
  - Winner of the 2006 Milton and Janice Esman Prize for Best Dissertation in Government Department, Cornell University
- Committee: Peter Katzenstein (Chair), Valerie Bunce, Matthew Evangelista, and Chris Way

Simon Fraser University. B.A., History and Political Science (Double Major), 1998.

- Graduand Speaker, June 1998
- 6-time Honour Roll Recipient

### **PUBLICATIONS**

#### Book

Jason Lyall, *Divided Armies: Inequality and Battlefield Performance in Modern War.* Princeton Studies in International History and Politics. Princeton University Press, 2020, 528pp.

- Winner, 2022 APSA Conflict Processes Section Best Book Award for "the book making the most outstanding contributions to the study of any and all forms of political conflict, either within or between nation-states, published in the past two calendar years"
- Winner, 2021 Peter Katzenstein Book Prize for "outstanding first book in International Relations, Comparative Politics, or Political Economy"
- Winner, 2020 Edgar S. Furniss Book Award for "first book that makes an exceptional contribution to the study of national and international security"
- Winner, 2020 Joseph Lepgold Prize, awarded by Georgetown University for "best book in international relations"
- Selected as one of "The Best Books of 2020" by Foreign Affairs
- Reviewed in Cambridge Review of International Affairs, Foreign Affairs, International Affairs, International Studies Quarterly, Joint Force Quarterly, Journal of Advanced Military Studies, Journal of Peace Research, Lawfare, Political Science Quarterly, Proceedings of the US Naval Institute, H-Diplo/ISSF Roundtable XII-11, APSA 2020 Roundtable

### Journal Articles (Peer-Reviewed)

- "Prolonged Contact Does Not Reshape Locals' Attitudes toward Migrants in Wartime Settings." With Yang-Yang Zhou. American Journal of Political Science, forthcoming.
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- "Mad CoW: A Reply to Gibler and Miller," International Studies Quarterly, 66:3 (September 2022), 1-5.
- "Can Economic Assistance Shape Combatant Support in Wartime? Experimental Evidence from Afghanistan," with Yang-Yang Zhou and Kosuke Imai, American Political Science Review, 114:1 (February 2020), 126-143.
- "Civilian Casualties, Humanitarian Aid, and Insurgent Violence in Civil Wars." *International Organization*, 73:4 (Fall 2019), 901-926.
- "Can Civilian Attitudes Predict Insurgent Violence? Ideology and Insurgent Tactical Choice in Civil War," with Kentaro Hirose and Kosuke Imai, *Journal of Peace Research*, 54:1 (January 2017), 47-63.
- "Coethnic Bias and Wartime Informing," with Yuki Shiraito and Kosuke Imai, *Journal of Politics*, 77:3 (July 2015), 833-48.
- "From Cell Phones to Conflict? Reflections on the Emerging ICT-Political Conflict Research Agenda," with Allan Dafoe, *Journal of Peace Research*, 52:3 (May 2015), 401-13.
- "Comparing and Combining List and Endorsement Experiments: Evidence from Afghanistan," with Graeme Blair and Kosuke Imai, American Journal of Political Science, 58:4 (October 2014), 1043-1063.
- "Explaining Support for Combatants During Wartime: A Survey Experiment in Afghanistan," with Graeme Blair and Kosuke Imai, American Political Science Review, 107:4 (November 2013), 679-705.

- "Are Co-Ethnics More Effective Counter-Insurgents? Evidence from the Second Chechen War," American Political Science Review, 104:1 (February 2010), 1-20.
- "Do Democracies Make Inferior Counterinsurgents? Reassessing Democracy's Impact on War Outcomes and Duration," *International Organization*, 64:1 (Winter 2010), 167-92.
- "Does Indiscriminate Violence Incite Insurgent Attacks? Evidence from Chechnya," Journal of Conflict Resolution, 53:3 (June 2009), 331-362.
- "Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars," with Isaiah Wilson III, *International Organization*, 63:1 (Winter 2009), 67-106.
- "Pocket Protests: Rhetorical Coercion and the Micropolitics of Collective Action in Semiauthoritarian Regimes," World Politics 58:3 (2006), 378-412.

### Chapters in Edited Volumes

- "Preregister Your Ethical Redlines: Vulnerable Populations, Policy Engagement, and the Perils of E-Hacking" for Responsible Engagement: A New Imperative for Social Scientists, eds. Rachel A. Epstein and Oliver Kaplan, Oxford University Press, 2023), forthcoming.
- "Forced to Fight: Blocking Units and Military Effectiveness in Conventional War" for *The Sword's Other Edge: Tradeoffs in the Pursuit of Military Effectiveness*, ed. Dan Reiter (Cambridge: Cambridge University Press, 2017), 88-125.
- "Process-Tracing, Causal Inference, and Civil War" for *Process Tracing in the Social Sciences:*From Metaphor to Analytic Tool, eds. Andrew Bennett and Jeffrey Checkel (Cambridge: Cambridge University Press, Strategies for Social Inquiry Series, 2015), 186-208.

### Other Scholarly Publications

- "Review of Sarah Zukerman Daly's  $\it Violent \ Victors,$ "  $\it H-Diplo/ISSF \ Roundtable \ xx, for the coming.$
- "A Reply to My Critics," H-Diplo/ISSF Roundtable 12-11 on my Divided Armies: Inequality and Battlefield Performance in Modern War, 14 May 2021.
- "The Dynamics of the Coup-Civil War Trap in Sub-Saharan Africa," *H-Diplo/ISSF* Roundtable 11-3 on Philip Roessler's *Ethnic Politics and State Power in Africa*, October 2019.

### Commentary (Selected)

- "How Inequality Hobbles Military Power: Divided Armies Struggle to Win," Foreign Affairs, 22 July 2022.
- "Drones Are Destabilizing Global Politics," Foreign Affairs, 16 December 2020.
- "The Strongest Military Is an Inclusive One: Why Equality Wins Wars," Foreign Affairs, 14 February 2020.
- "Afghanistan's Lost Decade," Foreign Affairs, 15 December 2011.
- "Online Communitarian Appeals Increase Opposition to Violent Extremism." With Brendan Nyhan and Elsa Voytas. IRB: #00032496.
- "Fratricidal Coercion in Modern War." With Yuri Zhukov.

### Work In Progress

I. Book Manuscripts

Why We Lost: Lessons from the American War in Afghanistan. Under contract with Princeton University Press.

Improving Humanitarian Assistance in Fragile and Violent Settings.

- II. Inequality and War
- "When Armies Break: Inequality and Mass Desertion in Modern War."
- "Inequality, Regime Type, and the Wartime Fate of Political Leaders."
- "Inequality, Technology, and Battlefield Performance in Future War."
- "Social Structures and Battlefield Coalitions."
- "Does Regime Type Explain War Outcomes." With Alexander Downes.
- III. Aid and Violence in Conflict Settings
- "Bombing to Lose? Airpower, Civilian Casualties, and the Dynamics of Violence in Counterinsurgency Wars."
- "Humanitarian Aid, Violence, and Combatant Support in Wartime." With Yang-Yang Zhou. IRB protocol #1211011138.
- "Spatio-Temporal Causal Inference in Dynamic Settings: The Case of the National Solidarity Program in Afghanistan." With Kosuke Imai.
- "Estimating Spatial Treatment Effects: An Application to Base Closures and Aid Delivery in Afghanistan." With Kosuke Imai, Yuki Shiraito, and Xiaolin Yang. IRB protocol #1305011985. AidData Working Paper Series No.63.
- "Do Labor Intensive Development Programs Reduce Insurgent Violence? Evidence from Afghanistan." IRB protocol #1507016173.
- "Causal Mediation Analysis With Spatio-Temporal Point Pattern Data: Evidence from Airstrikes and Civilian Casualties in Iraq." With Kosuke Imai and Georgia Papadogeorgou.
- "geocausal: Causal Inference with Spatio-Temporal Data." With Mitsuru Mukaigawara, Georgia Papadogeorgou, and Kosuke Imai.

### Experiments In Progress

- "Airstrikes, Civilian Casualties, and the Moral Hazard of Condolence Payments in Wartime." With Elsa Voytas. IRB: #00032652 (pilot), #00032848 (full study). PAP:
- "Conscription as Political Socialization in Divided Societies." With Christofer Berglund and Kairi Kasearu. (new title).

### Datasets

- Project Mars. New dataset of 252 conventional wars (1800-2011) with new measures of war- and battlefield-level outcomes, including desertion, defection, and use of blocking detachments, for 229 belligerents. Version 1.2 (2023)
- Air Operations Over Iraq, 2006-09. Combines declassified and open source material to identify nearly 13,000 USAF airstrikes and shows of force over Iraq, 2006-09. Includes data on location, platform, date, and satellite imagery for target type.
- Air Operations Over Afghanistan, 2006-11. Combines declassified and open source material to identify nearly 23,000 USAF airstrikes and shows of force over Afghanistan, 2006-11. Includes data on location, platform, date, and satellite imagery for target type.

Correlates of Insurgency. Records outcomes and duration for 286 insurgencies between 1800-2005. Also includes new measures of mechanization for all state combatants since 1917.

The Chechen Insurgency. New data collection effort consisting of 3000 insurgent attacks mapped at the village level; a new GIS template of all known populated centers in Chechnya; and a dataset of 800+ Russian- and Chechen-led sweep operations (2000-05).

### Statistical Software

Mitsuru Mukaigawara, Georgia Papadogeorgou, Jason Lyall, and Kosuke Imai. geocausal: Causal Inference with Spatio-Temporal Data. Version 0.1.0. (2023).

### AWARDS AND HONORS

2023	Dean of Faculty Award for Outstanding Mentoring and Advising; Glyn R. Berry Memorial
	Lecture, Dalhousie University, Canada
2022	APSA Conflict Processes Section Best Book Award; Edgar S. Furniss Book Prize; Modern
	War Institute (West Point) Research Fellow, 2022-23
2021	Peter Katzenstein Book Prize; Joseph Lepgold Book Prize
2020	Andrew Carnegie Fellow, Carnegie Corporation of New York, 2020-22
2019	James Wright Chair in Transnational Politics, Department of Government, Dartmouth
2018	The Nils Petter Gleditsch Journal of Peace Research Article of the Year Award for "Can
	Civilian Attitudes Predict Insurgent Violence?"
2013	Pi Sigma Alpha Award for best paper presented in the previous year at the annual Midwest
	Political Science Association for "Measuring Support for Combatants in Wartime"
2009-10	Postdoctoral Associate, Department of Political Science, The MacMillan Center for
	International and Area Studies, and the Institution for Social and Policy Studies (ISPS),
	Yale University
2009	Kellogg/Notre Dame Award for Best Paper in comparative politics presented in the previous
	year at the annual Midwest Political Science Association for "How Ethnicity Shapes
	Insurgent Violence"
2009	Ralph O. Glendinning University Preceptorship, Princeton University (declined)
2007-08	Postdoctoral Fellow in National Security, John M. Olin Institute for Strategic Studies,
	Harvard University
2007	Helen Dwight Reid Award for the best dissertation in the field of international relations,
	law, and politics, the American Political Science Association
2007	Stanley Kelley, Jr., Teaching Award, Politics Department, Princeton University
2006	Milton and Janice Esman Prize for Best Dissertation in Government Department, Cornell
2004	Joshua Aron '94 Fellow, John S. Knight Institute for Writing in the Disciplines, Cornell
2003-04	Mellon Foundation Completion Fellowship, Cornell University
2001-02	Luigi Einaudi Dissertation Fellowship, Cornell University
2001	Kahin Prize in International Relations for "most promising dissertation in International
2001	Relations," Department of Government, Cornell University
2001	MacArthur Foundation Dissertation Research Grant, Cornell University
2000	MacArthur Foundation Pre-Dissertation Fellowship, Cornell University
2000	Michele Sicca Summer Grant, Institute for European Studies, Cornell University
1999	Peace Studies Program Graduate Summer Fellowship, Cornell University
1998-99	Russell Sage Foundation Graduate Fellowship, Cornell University
1998-99	Mackenzie King Traveling Fellowship (declined)
1998-99	Delivered first Graduand Address at Simon Fraser University
1993-98	Six-time Dean's Honour Roll
1999-98	DIA-MINE DEAN 5 HONOM ROH

### EXTERNAL GRANTS

- 2021–23 National Science Foundation: "Causal Inference with Spatio-Temporal Data on Human Dynamics in Conflict Settings" (Algorithm for Threat Detection Program; DMS-#2124323),
   \$485,343. Co-PI with Georgia Papadogeorgou and Kosuke Imai.
- 2020–21 Folke Bernadette Academy: "How Coethnic and Gender Biases Affect Citizen-Police Interaction in Fragile and Violent Contexts" (#20-00255), \$42,000. Co-PI with Travis Curtice, Hilary Matfess, and Mara Revkin.
- 2020–22 Carnegie Foundation Fellowship: "Improving Humanitarian Assistance in Violent Settings" (R-F-20-57728), \$200,000.
- AidData and USAID: "Unemployment and Violence in Afghanistan: Evidence from the Community Development Program" (#AID-OAA-A-12-0096), \$120,000. Co-Principal Investigator w/ Kosuke Imai.
- United States Institute of Peace: "Assessing the Links between Economic Interventions and Stability: An Impact Evaluation of Vocational and Skills Training in Kandahar, Afghanistan" (#SG-446-15), \$144,494. Co-Principal Investigator w/ David Haines, Kosuke Imai, and Jon Kurtz.
- 2014–17 Air Force Office of Scientific Research: "Assessing the Coercive Effects of Advanced Weaponry in Civil Wars and Asymmetric Conflicts," (#FA9550-14-1-0072), \$1.8 million. Co-Principal Investigator w/ Todd Sechser.
- 2009–14 Air Force Office of Scientific Research ("Minerva Initiative"): "Terrorism, Development, and Governance" (#FA9550-09-1-0314). \$1.2 million.
- 2007–08 United States Institute of Peace: "The Dynamics of Violence in Russia's Northern Caucasus" (USIP-042-06F). \$50,000.

### INTERNAL GRANTS

- 2023 Ethics Institute Faculty Grant ("The Moral Hazard of Aid Provision After Civilian Harm"), w/Elsa Voytas
- 2022 Wright Center for the Study of Computation and Just Communities' JustX Grant ("A Multiplatform Evaluation of Counter-Radicalization Messages in Bangladesh") w/Brendan Nyhan
- 2022 Dartmouth Initiative for Global Security (DIGS) Faculty Grant for "The Moral Hazard of Humanitarian Aid" w/ Elsa Voytas
- 2018 MacMillan Center Faculty Research Grant, for "The Dynamics of Blame Attribution in Wartime"
- 2018 Edward J. and Dorothy Clarke Kempf Memorial Fund for graduate student conference "New Frontiers in Peacekeeping"
- 2015 Edward J. and Dorothy Clarke Kempf Memorial Fund for book manuscript conference (Divided Armies)
- 2015 MacMillan Center Faculty Research Grant, for "Explaining Wartime Desertion and Defection"
- 2014 Director's Award, MacMillan Center for International and Area Studies
- 2014 Edward J. and Dorothy Clarke Kempf Memorial Fund for conference "Communication Technology and Political Conflict," w/ Allan Dafoe and Nils Weidmann
- 2011 ISPS Field Experiment Initiative Grant for "Coethnicity and Information-Sharing in Wartime: A Survey Experiment in Afghanistan"
- 2011 MacMillan Center Faculty Research Grant for "Changing Patterns of Warfare"
- 2011 ISPS Field Experiment Initiative Grant, for "Blame Attribution and Wartime Political Attitudes: Evidence from an Experiment in Afghanistan"

- 2008 University Committee on Research in the Humanities and Social Sciences Faculty Grant (UCRHSS), Princeton, for "Explaining Noncombatant Fatalities in Iraq, 2003-07," Princeton University
- 2006 UCRHSS Faculty Grant for "Mapping the Iraqi Insurgencies," Princeton University
- 2006 UCRHSS Faculty Grant for "Pocket Protests," Princeton University

### PROFESSIONAL PRESENTATIONS AND INVITED TALKS

- 2023 Center for Conflict and Violence Prevention, USAID (February); US Military Academy-West Point (February); Dalhousie University (Annual Glyn Berry Lecture, March); Duke Law School (September); Office for Diversity, Equity, and Inclusion, DoD (December)
- 2022 World Bank-UNHCR Joint Data Center on Forced Displacement (2nd Research Conference on Forced Displacement, Jan); Keynote Address (Four Corners Conflict Network, USAFA, April); Multi-Method Conflict Consortium (Peace Science Society, November); the Ohio State University (Annual Furniss Prize Lecture, November); International Republican Institute (December)
- 2021 Belfer Center, Harvard Kennedy School (Civ-Mil Working Group, Feb); Joint Special Operations University (March); Université de Montréal (March); Harvard University (IR Speaker Series; April); Duke University (Security, Peace & Conflict; April); University of Denver (Co-Instructor, Workshop on Ethical Engagement with Policymakers); MIT (SSP; May); Bridging the Gap (IPSI, June); National Ground Intelligence Center (August); US Military Academy (October); Lepgold Lecture at Georgetown University (November)
- Young Foreign Policy Professionals (July); New York University (Armed Forces & Society; November); GWU (Speaker Series; Dec); University of Michigan (Conflict Working Group; Dec); Joint Special Operations University (Diversity & Inclusion Speakers' Series; Dec)
- 2019 Stanford University (IR Colloquium, Mar); University of Michigan (Rubin Speaker Series, April); University of Denver (Workshop on Ethical Engagement with Policymakers); Harvard Kennedy School (Workshop on Ethical Engagement in Conflict Research, July); George Washington University (November); American Academy of Arts and Sciences (November)
- 2018 Joint Staff (J-5, U.S. Department of Defense; Feb); New America Foundation (ISP; Feb), Texas A&M University (PEPV; Jan)
- 2017 New York University—Abu Dhabi (Political Science Seminar; Dec); Harvard University (Comparative Politics Seminar; Nov); Brown University (Watson Institute Security Studies Workshop; Sept); Air Force Office of Scientific Research (USAF Academy; June); University of Zurich-ETH Zurich Joint Workshop (May); University of Konstanz (May); University of Rochester ("In The Field: Political Science" Conference; May); University of British Columbia, Vancouver School of Economics (April)
- 2016 University of Notre Dame (International Security Center; Nov); Columbia University (International Politics Seminar; Oct); University of Essex Government Department/ESSEXLab (Aug); University of Essex Summer School in Social Science Data Analysis ("Field Experiments" module; Aug); Air Force Office of Scientific Research (Arlington, VA; June); University of Chicago, Becker-Friedman Institute (May); University of Wisconsin-Madison (IR-CP Workshop; April); Yale University, U.N. Global Colloquium of University Presidents, "How Antiquities Fuel Modern Conflicts," (April); University of Rochester (Comparative Politics Workshop; March)
- 2015 University of Alabama-Huntsville, AFOSR Wargaming Group (July); Bruno Kessler Foundation, Trento, Italy (June); Special Inspector General for Afghanistan Reconstruction (SIGAR), Washington, D.C., (May); ISA-AidData-Georgetown-Niehaus Center Workshop, "Foreign Aid and Government Legitimacy" Workshop (April); University of Denver (Sié Chéou-Kang Center for International Security and Diplomacy; April)
- 2014 London School of Economics (Political Science and Political Economy Seminar; March); Boston College, "Afghanistan after 2014" Speaker Series (January)

- 2013 USAID Mission, Kabul, Afghanistan (November); USAID Stabilization 6th M&E Summit, Kabul, Afghanistan (November); University of Michigan (Seminar on Disaggregated Conflict Studies; November); Yale University, Seventh Annual India-Yale Parliamentary Leadership Program (June); Zukunftskolleg, University of Konstanz, Germany (June); USAID Stabilization 4th M&E Summit, Kabul, Afghanistan (May); UCLA (Department of Political Science; May); Columbia University (International Politics Seminar; May)
- 2012 Uppsala University (Department of Peace and Conflict Research; November); Princeton University (Experimental Research Workshop; Sept); Yale University, Sixth Annual India-Yale Parliamentary Leadership Program (June); University of Toronto, (International Relations Seminar: March)
- MIT-PRIO Workshop on Counterinsurgency and Counterterrorism (November); Cornell University (Judith Reppy Institute for Peace and Conflict Studies; October); University of Virginia (Lansing-Lee/Bankard Seminar in Global Politics; October); Princeton University (International Relations Colloquium; September); University of British Columbia (Liu Institute for Global Affairs; September); Simon Fraser University (Simons Lecture in Dynamics of Conflict; September); Empirical Implications of Theoretical Models (EITM), University of Chicago (July); Air Force Office of Scientific Research ("Effects to Influence" Workshop; June); Harvard University (National Security Studies Program; April); University of Washington (International Security Colloquium; April); Columbia University, "Human Rights in the Post-Communist World" Lecture Series (April); Juan March Institute (CEACS), Madrid (March); UC-San Diego (International Relations Workshop; February); University of Pennsylvania (Browne Center for International Politics, February); PRIO (Social Dynamics of Civil War Workshop, Oslo, Norway; February); Duke University (Security, Peace and Conflict Workshop; January)
- Ohio State University (Mershon Center for International Security Studies; November);
  Columbia University (Harriman Institute; October); George Washington University
  (Institute for Security and Conflict Studies Workshop; October); Wesleyan University
  (Program on Terrorism and Insurgency Research; September); Yale University, Fourth
  Annual India-Yale Parliamentary Leadership Program (May); Harvard University (Davis
  Center for Russian and Eurasian Studies; May); University of Ottawa (Centre for
  International Policy Studies; February); Emory University (Department of Political Science
  Speaker's Series; January)
- Social Science Research Council, Eurasia Program (December); Georgetown University
   (International Theory and Research Seminar; December); Harvard University, Second
   Annual Columbia-Harvard Russia/Eurasia Forum (October); UC-San Diego (Governance,
   Development, and Political Violence Workshop; June); Columbia University (Workshop on
   Civil War Data; May)
- 2008 Dartmouth College (International Relations/Foreign Policy Working Group; April); University of Chicago (PISP; February); Cornell University (Peace Studies Program; February); Harvard University (Post-Communist Politics and Economics Workshop; February)
- 2007 Harvard University (Olin Institute for Strategic Studies; October); US Transportation Command (USTRANSCOM), Component Commanders' Conference (June); University of Maryland (CISSM, May); Defense Science Board (April); U.S. Military Academy at West Point (Social Sciences Department; March)
- 2006 Columbia University (International Politics Seminar; November); Yale University (Comparative Politics Seminar; November)

### SELECTED CONFERENCE PARTICIPATION

### Presentations

American Political Science Association (APSA) Annual Meeting: 2003, 2004, 2006, 2010, 2013, 2017, 2018, 2020

Midwestern Political Science Association (MPSA) Annual Conference: 2006, 2008, 2013

International Studies Association (ISA) Annual Meeting: 2003, 2006, 2008, 2012, 2014, 2019, 2021

ISSS-IS Annual Conference: 2019

Evidence in Governance and Politics (EGAP) Meetings: 2015, 2016, 2023

Peace Science Society: 2022

European Consortium on Political Research (ECPR): 2018

Association for the Study of Nationalities (ASN): 2008

Council for European Studies: 2002

### Panel Chair/Discussant/Roundtable

American Political Science Association (APSA) Annual Meeting: 2005 (D), 2007 (D), 2008 (D), 2009 (C,D), 2010 (D), 2014 (C/D), 2016 (C), 2017 (C/D), 2018 (D), 2019 (C/D), 2020 (R), 2021 (C), 2022 (D)

International Studies Association (ISA) Annual Meeting: 2008 (C/D), 2009 (C/D), 2012 (C), 2013 (D), 2019 (R), 2021 (R), 2023 (R/C/D)

Midwestern Political Science Association (MPSA) Annual Conference: 2021

ISSS-IS Annual Conference: 2019 (C/R)

European Consortium for Political Research (ECPR): 2018 (C/D)

### OTHER TRAINING AND PROFESSIONAL EXPERIENCES

Technical Advisor, Measuring Impact of Stabilization Initiatives (MISTI), USAID-Afghanistan: April 2012—March 2015.

Counterinsurgency Leaders' Course XXIII–Afghanistan (CLC-A), Camp Julien, Afghanistan: July 2009.

Columbia-Cornell Summer Workshop on the Analysis of Military Operations and Strategy (SWAMOS): July-August 2003.

Exchange Scholar, Government Department and the Davis Center, Harvard University: 2003, 2001. Visiting Scholar, Department of Political Science and Sociology, European University at St. Petersburg, Russia: September 2001-December 2001.

## TEACHING EXPERIENCE

### Dartmouth College

GOV 50.19: Development Under Fire (Spr 2020, Winter 2021, Winter 2023, Spr 2023)

GOV 85.41: Political Violence (Spr 2020, Winter 2023)

 $\,$  GOV 85.43: Advances in the Study of International Conflict (Fall 2020)

GOV 85.44: War and Society (Winter 2021, Spr 2022, Spr 2023)

### Yale University

PLSC 111/GLBL 268: Introduction to International Relations (Spr 2017, Spr 2018, Spr 2019)

PLSC 128/GLBL 247: Development Under Fire (Spr 2013, Spr 2016, Spr 2017, Fall 2018)

PLSC 134: Airpower in Modern War (Fall 2017)

PLSC 144/INTS 260: Topics: International Security (Spr 2011)

GLBL 275: Approaches to International Security (Fall 2014, Fall 2015, Fall 2016)

INTS 472: Directed Research (Spr 2011)

PLSC 694: Field Seminar: International Security (Graduate) (Spr 2011)

PLSC 696: International Relations II (Graduate) (Spr 2013, Spr 2015, Spr 2016, Spr 2017)

PLSC 745: Political Violence (Graduate) (Spr 2018, Spr 2019)

PLSC 926: International Relations Workshop (Graduate) (AY 2015-16)

PLSC 943: Political Violence and its Legacies Workshop (Graduate) (AY 2018-19)

GLBL 999: Directed Reading (Graduate) (Spr 2018)

### Princeton University

POL 240: Introduction to International Relations (Spr 2006, Spr 2007, Fall 2008)

POL 397: National Security (Fall 2005, Spr 2005, Fall 2006)

WWS 401: Junior WWS Taskforce: The Chechen Wars (Fall 2005)

WWS 459: Junior Workshop: Order and Change in World Politics (Fall 2004)

 $\operatorname{WWS/POL}$  477: The Dynamics of Violence in Civil Wars (Fall 2008)

WWS 549: Emerging National Security Challenges (MA) (Spr 2005)

### **SERVICE**

### Service to the Profession

### Advisory boards

APSA EPOVB Early Career Mentoring Program, 2023-.

APSA International Security Section Board Member, 2022—.

EGAP's Displacement, Migration, and Integration Steering Committee, 2022—.

President's External Advisory Board, Joint Special Operations University (JSOU), 2020–.

Sié Chéou-Kang Center for International Security and Diplomacy's Responsible Engagement Board, University of Denver, 2019–.

APSA/ISA Committee for the Analysis of Military Operations and Strategy (CAMOS) Program Officer, 2009-2011.

### Editorial boards

International Journal, 2016–2023. World Politics, 2005-09.

### **Prize Committees**

APSA Conflict Processes Section Best Book Award Committee (Chair), 2023.
APSA International Security and Arms Control Section 19 Joseph Kruzel Memorial Award for Distinguished Public Service Committee (Chair), 2023.
Peter Katzenstein Book Prize Award, 2023.
APSA International Security and Arms Control Section 19 Best Article Award, 2019.
CAMOS-Journal of Strategic Studies Graduate Paper Prize Committee, 2008-09.

### Reviewer (Manuscripts)

American Political Science Review, American Journal of Political Science, American Sociological Review, British Journal of Political Science, Cambridge University Press, Comparative Political Studies, Comparative Politics, Conflict Management and Peace Science, Cornell University Press, Economic Development and Cultural Change, Economics & Politics, Global Studies Quarterly, Harvard University Press, International Interactions, International Journal, International Organization, International Security, International Studies Quarterly, Journal of Conflict Resolution, Journal of Global Security Studies, Journal of Human Rights, Journal of Peace Research, Journal of Political Economy, Journal of Politics, Journal of the Royal Statistical Society, Military Psychology, Nature Communications, Nature Human Behavior, Oxford Research Encyclopedia of International Studies, Oxford University Press, Perspectives on Politics, Political Research Quarterly, Proceedings of the National Academy of Sciences (PNAS), Scandinavian Journal of Military Studies, Science, Security Studies, Social Science and Medicine, Stanford University Press, Studies in Comparative International Development, Terrorism and Political Violence, World Politics, and Yale University Press.

### Reviewer (Grants)

Carnegie Corporation of New York, European Research Council, Harry Guggenheim Foundation, National Science Foundation, Netherlands Organisation for Scientific Research, Social Science and Humanities Research Council (SSHRC), Swiss National Science Foundation.

### Reviewer (Tenure and Promotion)

Tenure: 3 Promotion: 1

### Dartmouth

Committee on Standards/Organization Adjudication Committee (COS/OAC), 2023–2025. Dartmouth Initiative for Global Security (DIGS) Distinguished Visiting Fac. Committee, 2023, 2022

Govt. Dept. Junior Faculty Mentor Coordinator, 2022-24 Search Committee Chair, Globalization Search, 2022 John Sloan Dickey Center Post-Doctoral Fellowship Committee, 2022, 2020 Search Committee Member, Dickey Center Director, 2020-21 Search Committee Member, Globalization Chair, 2020-21 Coordinator, Political Violence Lecture Series, 2019—. Senior Theses: Ciara Comerford (2020-21); Olivia Gresham (2021-22, Rockefeller Prize in Comparative Politics); Anya Sorensen (2021-22)

### Yale

Steering Committee, Political Violence and its Legacies Workshop, 2018-19.

ROTC Advisory Committee, 2016-18.

Faculty of Arts and Sciences Human Subjects Committee (IRB), 2016-18.

Director and Founder, Political Violence FieldLab, Macmillan Center Program, 2015-19.

IR Graduate Field Examination Committee: Spring 2018 (Chair), Fall 2017 (Chair), Spring 2016, Fall 2015, Spring 2015, Fall 2014, Spring 2013, Fall 2011.

James Gordon Bennett Prize in Int'l Relations Committee, Department of Politics, 2017, 2013.

Jackson Institute Global Affairs MA Selection Committee, 2018, 2017, 2016, 2015.

Department of Political Science Graduate Admissions Committee, 2016.

Sophomore Advising, 2015-19.

MacMillan Fox Fellowship Review Committee, 2015.

Department of Political Science Faculty Reappointment Committee, 2015.

International Relations Field Coordinator, Spring 2013.

Pierson College Freshmen Advisor, 2012-18.

Senior Service College Military Fellow Faculty Mentor, 2011-19.

Jackson Institute Global Affairs Selection Committee, 2011.

OCV Fellowship Selection Committee, 2011.

Director of Undergraduate Studies for the International Studies Major, 2010-11.

Political Science—Jackson Institute Int'l Relations Junior Search Committee Member, 2010-11.

Committee for the Creation of a Global Affairs Major, 2010.

Henry Hart Rice Prize Committee, 2010-11.

Ph.D. Examiner, 2010-19.

Pierson College Fellow, 2010-19.

Senior Advising, 2010-19.

### Princeton

Chair's Advisory Committee, Department of Politics, September 2006-July 2007.

Faculty Committee, Princeton Russian and Eurasian Studies Center, September 2006-July 2009.

Woodrow Wilson School Undergraduate Committee, September 2006-July 2007.

Thesis Advisor, Department of Near East Studies, Princeton, September 2005-July 2009.

Whig-Clio Society, 2005-2009.

Field I Committee, Woodrow Wilson School, September 2004-July 2009.

Butler College Faculty Fellow, 2008-09.

Senior Thesis Advisor (14).

### **ADVISING**

PhD Dissertation Committees

Pedro Accorsi (University of Minnesota)

Julia Raven (UC Berkeley)

Prakhar Sharma (Syracuse)

### Placements of Former PhD students

Mara Revkin, 2020 (Georgetown Law)
Karen Albert (Rochester), 2020
Louis Wasser, 2019 (Lecturer, Yale)
Chris Price, 2019 (Post-Doc, U of Wisconsin-Madison)
Jiyoung Ko, 2017 (Bates College), Chair
Niloufer Siddiqui, 2017 (SUNY-Albany)
Francesca Grandi, 2016 (IISS)
Shivaji Mukherjee, 2013 (University of Toronto—Mississauga)
Matthew Zais, 2016 (US Army)
Jeanne Hull, 2014 (US Army)
Andrea Everett, 2012 (Visting Scholar, Stanford)
Eva Kaye, 2011 (AI4ALL)
Christopher Darnton, 2009 (University of Washington)
Lyudmila Krytynskaia, 2008 (Independent Analyst)

### External Examiner

Felipe Cruvinel (University of St. Andrews), 2022 Laura Courchesne (Oxford), 2022 Jasmine Bhatia (Oxford), 2018 Cyrus Samii (Columbia), 2011

### **TECHNICAL SKILLS**

### Methods interests

Experimental design in conflict settings, survey experiments, causal inference, data visualization, archival methods, integrating quantitative and qualitative methods in a potential outcome framework, spatial analysis

### Computer skills

LATEX, R, Stata, ArcGIS

### Languages

Russian (Proficient), French (Reading), Spanish (Reading), German (Reading), Italian (Reading), Nokhchiin/Chechen (Novice), Persian/Dari (Novice).

### Fieldwork

Russia: July 2000, September-December 2001, September 2002-February 2003, August 2005. Afghanistan: July-August 2009, August 2010, September 2011, April 2012, October 2012, May 2013, November 2013. No longer updating due to security risk. Qatar: October 2011.

### **REFERENCES**

Additional references available upon request.

Ethan Bueno de Mesquita, PhD Sydney Stein Professor and Deputy Dean for Promotions & Recruitment Harris School of Public Policy University of Chicago 773.834.9874 bdm@uchicago.edu

Fotini Christia, PhD Professor of Political Science Department of Political Science Massachusetts Institute of Technology 617.324.5595 fotini@mit.edu

Jim Levinsohn, PhD Director, Jackson Institute for Global Affairs Charles Goodyear Professor in Global Affairs Professor of Economics and Management Yale University 203.432.6253 james.levinsohn@yale.edu

Jeremy Weinstein, PhD Professor of Political Science Department of Political Science Stanford University 650.736.1224 jweinst@stanford.edu Erica Chenoweth, PhD Professor of Public Policy Harvard Kennedy School Harvard University 617.495.1150 erica\_chenoweth@hks.harvard.edu

Alexander Downes, PhD Professor of Political Science and International Affairs Department of Political Science George Washington University 202.994.7859 downes@gwu.edu

David Laitin, PhD James T. Watkins IV and Elise V. Watkins Professor of Political Science Department of Political Science Stanford University 650.725.9556 dlaitin@stanford.edu

Last updated: Saturday 18<sup>th</sup> November, 2023

# **APPENDIX B**

### Works Cited

- Alesina, Alberto, Reza Baqir and William Easterly. 1999. "Public Goods and Ethnic Divisions." *Quarterly Journal of Economics* 114:1243–84.
- Allen, Nathaniel and Risa Brooks. 2023. "Unpacking "Stacking": Researching Political Identity and Regime Security in Armed Forces." *Armed Forces & Society* 49(1): 207–227.
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- Almaatouq, Abdullah, Mohammed Alsobay, Ming Yin and Duncan Watts. 2021. "Task complexity moderates group synergy." *Proceedings of the National Academy of Sciences* 118(36):1–9.
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- Bouncken, Ricarda, Alexander Brem and Sascha Kraus. 2016. "Multi-Cultural Teams as Sources for Creativity and Innovation: The Role of Cultural Diversity on Team Performance." *International Journal of Innovation Management* 20(1):1–34.
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- Bove, Vincenzo and Andrea Ruggeri. 2019. "Peacekeeping Effectiveness and Blue Helmets' Distance from Locals." *Journal of Conflict Resolution* 63(7):1630–55.
- Bove, Vincenzo, Chiara Ruffa and Andrea Ruggeri. 2020. *Composing Peace: Mission Composition in UN Peacekeeping*. Oxford: Oxford University Press.
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- Cederman, Lars-Erik, Kristian Gleditsch and Halvard Buhaug. 2013. *Inequality, Grievances, and Civil War*. Cambridge: Cambridge University Press.

- Chinchilla, Alexandra. 2023. "The Effects of Advisor Deployments on Counterinsurgent Repression During Civil War." Working Paper.
- Cohen, Dara Kay. 2016. Rape During Civil War. Ithaca, NY: Cornell University Press.
- Conwill, Kinshasha, ed. 2019. We Return Fighting: World War I and the Shaping of Modern Black Identity. Washington, D.C.: Smithsonian Books.
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