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### Using Manpower Policies to Transform the Force and Society: The Case of the Pakistan Army

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## Using Manpower Policies to Transform the Force and Society: The Case of the Pakistan Army

C. CHRISTINE FAIR

*Military manpower policies have an impact beyond the garrison. Policymakers have long held that military service can darn social fabrics that have been rent by ethnic, communal, class, and other cleavages, while scholars debate whether and how this occurs. Because military participation has implications for citizenship, marginalized groups have campaigned to be allowed to participate in the military, and leveraged their service to achieve greater enfranchisement. Military service affects the society as a whole in other ways as well: for example, leaders with military experience are less likely than others to prefer military force when other options are available. This paper examines the Pakistan Army, which, with its domination of the state, feared Islamist tendencies, and incessant belligerence toward India, seems to differ markedly from other militaries. But, using army recruitment and household survey data, it shows that even the Pakistan Army has used personnel policies to reshape its force, despite the numerous challenges of such a course. Whereas recent manpower studies dilate upon how socially marginalized groups employ military service to achieve greater access to citizenship, my analysis exposits how an army uses service in its ranks to cajole reluctant citizens into the national project of Pakistan and encumber them with the responsibilities and rights thereof. While this essay provides greater insights into the Pakistan Army specifically by focusing upon this ostensible anomaly, I hope to inform the larger literature on defense politics and the instrumentality of manpower policies.*

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## INTRODUCTION TO THE PUZZLE

This essay examines how the Pakistan Army uses its manpower (or participation) policies both to shape the future Pakistan Army and to achieve larger, transformative societal goals that the army has adopted. In doing so, this essay will expand scholarly understanding of the Pakistan Army and how it manages force-specific concerns as well as the army's larger project of influencing Pakistan's politics and polity. However, by working through the specific and even peculiar case of the Pakistan Army, this essay hopes to inform the larger scholarly literature on defense politics more generally. Whereas much of the contemporary scholarship dilates upon how socially marginalized groups use military service to achieve greater access to citizenship, the Pakistan Army has sought to use service in its ranks as a means to foist underrepresented groups into the national project of Pakistan and to encumber them with the responsibilities and rights thereof. In fact, when viewed through the lens of defense politics, the Pakistan Army resembles other armies drawn from multiethnic, multi-religion democratic countries despite the myriad ways in which the Pakistan Army differs from the same.

The manpower policies of armies matter not only in terms of their impact on military readiness and war-fighting but also because they influence society as a whole. Both Theodore Roosevelt and Leonid Brezhnev, despite governing very different polities, "turned to the armed forces and the policy of universal military service at least in part to help build cohesive national communities out of their countries' multinational jumbles."<sup>1</sup> During the twentieth century, newly independent states in Africa and Asia viewed military service as a means of repairing "a national fabric rent by communal rifts."<sup>2</sup> Myriad countries, with diverse governance structures and ideological moorings, continue to view military service as a tool for achieving national integration.<sup>3</sup>

National manpower policies dictate who can serve in the military and in what capacity. In armies across the world, minorities (whether racial, ethnic, communal, or caste) and socially marginalized groups (for example, women and persons who are lesbian, gay, bisexual, or transgender (LGBT)) have faced obstacles to serving in the military. In some cases, military and political leadership suspected these groups of having doubtful loyalties or judged their members to be insufficiently intelligent or capable. In some cases, policymakers feared the larger societal impacts of more inclusive military service. When minorities have been allowed to serve they have often been

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<sup>1</sup> Ronald R. Krebs, "A School for the Nation? How Military Service Does Not Build Nations, and How It Might," *International Security* 28, no. 4 (Spring 2004): 85.

<sup>2</sup> *Ibid.*, 85.

<sup>3</sup> Ronald R. Krebs, *Fighting for Rights: Military Service and the Politics of Citizenship* (Ithaca, NY: Cornell University Press, 2006), 2.

segregated, restricted to certain roles, and often confined to units (for example support units) where it was believed that they could do the least harm. Marginalized groups have limited opportunities for promotion and thus have been underrepresented in the officer corps.<sup>4</sup> And in some egregious cases, having received subpar training and equipment, they have been sent into battle as “cannon fodder.”<sup>5</sup>

Recognizing that military participation has important implications for national identity and citizenship, marginalized minority and nonminority groups have pushed for greater access to the military. They then mobilize their military record in pursuit of “first-class citizenship,” framing their demands as a “just reward for their people’s sacrifice” in uniform.<sup>6</sup> (Indeed, military and political leaders opposed to minority service may seek to prevent this outcome.) Military service also seems to influence a nation’s behavior on the international stage: leaders with military backgrounds are more reluctant to use military force, but when they do decide to seek a military solution to a diplomatic problem they tend to place fewer restrictions on the armed forces.<sup>7</sup>

In this essay, I focus upon the Pakistan Army’s efforts to manipulate its manpower policies to achieve an array of social goals. To those unfamiliar with the Pakistan Army, this may appear to be counterintuitive. After all, the Pakistan Army inspires concern among policy analysts and scholars alike on account of its near-constant state of war with India, its incorrigible reliance upon Islamist terrorists as tools of foreign policy in India and Afghanistan, its feared Islamization, and its certain instrumentalization of Islam to further domestic objectives. As if these concerns were not enough, the Pakistan Army has developed a nuclear capability in an attempt to preclude military action by India and to ensure that the United States cannot break ties with Pakistan, no matter how provocative the latter’s actions. The army also oversaw the extensive nuclear black market through which Pakistan was able to acquire the necessary materials and capabilities for its domestic nuclear weapons program and also proliferate nuclear technologies to America’s foes (for example Iran).<sup>8</sup>

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<sup>4</sup> Alon Peled, *A Question of Loyalty: Military Manpower Policy in Multiethnic States* (Ithaca, NY: Cornell University Press, 1998).

<sup>5</sup> Ronald R. Krebs, “One Nation Under Arms? Military Participation and the Politics of Identity,” *Security Studies* 14, no. 3 (July–September 2005): 529–30.

<sup>6</sup> Krebs, *Fighting for Rights*, 3.

<sup>7</sup> Christopher Gelpi and Peter D. Feaver, “Speak Softly and Carry a Big Stick? Veterans in the Political Elite and the American Use of Force,” *American Political Science Review* 96, no. 4 (December 2002); Peter D. Feaver, “Civil-Military Conflict and the Use of Force,” in Donald Snider and Miranda Carlton-Carew, *U.S. Civil-Military Relations: In Crisis or Transition?* (Washington, DC: Center for Strategic and International Studies, 1995); Charles A. Stevenson, “The Evolving Clinton Doctrine on the Use of Force,” *Armed Forces and Society* 22, no. 4 (Summer 1996); Cori Dauber, “The Practice of Argument: Reading the Conditions of Civil-Military Relations,” *Armed Forces and Society* 24, no. 3 (Spring 1988).

<sup>8</sup> Matthew Kroenig, *Exporting the Bomb: Technology Transfer and the Spread of Nuclear Weapons* (Ithaca, NY: Cornell University Press, 2010).

However, despite these varied ignominious distinctions, the Pakistan Army is not indifferent to the various institutional challenges it faces. The Pakistan Army has always been a large, conventional, all-volunteer force. Recruitment practices inherited from the British, such as the concept of “martial races,” heavily influenced its initial force composition. Thus the Pakistan Army that came into being in 1947, when Pakistan became an independent state, was dominated by Punjabis and Pashtuns, while the Bengalis, who comprised half of Pakistan’s population and dominated East Pakistan, were virtually absent. Since independence, the Pakistan Army, which has always viewed itself as the most important driver of nation building, has struggled to expand its recruitment base. The army hoped that by recruiting Pakistan’s more reluctant citizens (for example restive Sindhis, Baloch, and even tribal Pashtuns) it could also convince them to support the national project. But these populations have historically been uninterested in military service.

This prioritization of force modification is surprising. The Pakistan Army is demand-constrained in that it receives far more applicants, mostly from the dominant ethnic groups, than it has billets to fill. Given the disproportionate interest among dominant groups and the dearth of applicants from under-represented groups, the army must relax recruitment standards in places like Sindh and Balochistan and spend more resources recruiting in those areas. Doing so involves trade-offs for the Pakistan Army: by relaxing its standards for Baloch and Sindhi recruits, the army accepts the possibility that such recruits may display higher rates of attrition, different promotion profiles, and less competent performance than officers who met the regular standards. Given that Pakistan is in a near state of constant war with India, involved in a proxy war in Afghanistan, and combating various internal security challenges, it is counterintuitive to suggest that the Pakistan Army would seek to shift the recruitment base of the army if doing so could have adverse operational outcomes. Yet, as C. Christine Fair and Shuja Nawaz demonstrate, the army has been able to do this with considerable success, and it has done so non-coercively.<sup>9</sup>

Using historical district-level data for the Pakistan officer corps, I show that the Pakistan Army has successfully used its manpower policies to effect change in the geographical, if not the ethnic, diversity of its officer corps. Using household survey data, I model some of the drivers of the changes described by Fair and Nawaz. Finally, using survey data, I demonstrate that this increase in geographical diversity may have important implications even if it is not isomorphic with a change in the army’s demographic composition (that is, the army could be recruiting Punjabis from Balochistan).

The remainder of this article is organized as follows. In the next section I situate Pakistan’s own military manpower debates within the scholarly literature on the influence of manpower policies upon multi-ethnic societies. I

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<sup>9</sup> C. Christine Fair and Shuja Nawaz, “The Changing Pakistan Army Officer Corps,” *Journal of Strategic Studies* 34, no. 1 (February 2011).

next provide a description of the recruitment and other data that I employ in this essay, including a brief exposition of the changes that have taken place in recruitment in recent decades. In the fourth section, I identify the basic drivers of change in recruitment outcomes in the Pakistan Army and, in doing so, demonstrate that the Pakistan Army generally behaves like other militaries despite the important differences described below. (Most published studies on military manpower policies involve countries whose militaries are supply-constrained, such as the United States, Turkey, and the United Kingdom. The Pakistan Army is an all-volunteer force that is generally demand-constrained but faces a constrained supply of underrepresented groups.) Because these data are district-level rather than officer level, I cannot assume that the recruits from Balochistan, for example, are ethnically Baloch. This gives rise to the question of whether a change in the geographical base of recruitment alone has an impact on militaries and the societies from which they draw. To address this issue, in the fifth section I present findings from a “natural experiment” that allows me to capture the views of ethnic groups that have dispersed beyond their “home province.” This article concludes with a discussion of the implications of my findings that, at its new equilibrium, the Pakistan Army may indeed achieve important diversity goals should it sustain its current course of expanding its recruitment base.

### MILITARY RECRUITMENT IN MULTIETHNIC SOCIETIES

Political leaders, scholars, and social theorists share the belief that a country’s military manpower policies have impacts far beyond the garrison. Scholars have noted that civilian and military leaders have divergent views on whether and when to use military force and how that force should be employed. Studies of US decision making during and after the Cold War demonstrate that, all else being equal, civilian leaders are generally more willing than their military counterparts to use military force to resolve diplomatic problems, but also that they prefer to control the use of force in order to preclude escalation to a larger conflict. In contrast, military leaders tend to be more reluctant to use military force in the first instance, but they prefer fewer restrictions on the use of force so that the armed forces can deliver a quick and decisive victory.<sup>10</sup> Military service also affects the wages that veterans earn on their return to civilian life, although the effect varies enormously based on the veteran’s race, ethnicity, gender, educational attainment, and rank.<sup>11</sup>

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<sup>10</sup> Gelpi and Feaver, “Speak Softly and Carry a Big Stick?”; Feaver, “Civil-Military Conflict and the Use of Force”; Stevenson, “The Evolving Clinton Doctrine on the Use of Force”; Dauber, “The Practice of Argument”; Richard K. Betts, *Soldiers, Statesmen, and Cold War Crises* (New York: Columbia University Press, 1991); Christopher Gacek, *The Logic of Force: The Dilemma of Limited War in American Foreign Policy* (New York: Columbia University Press, 1994).

<sup>11</sup> See, inter alia, Carl A. Kogut, Larry E. Short, and Jerry L. Wall, “Estimating The Increase In Wages From Military Service,” *Journal of Economics and Economic Education Research* 11, no. 2 (May 2010);

In many countries, veterans enjoy preferential hiring in state and federal bureaucracies, as well as other perquisites, such as educational benefits, loans on favorable terms, and separate (and sometimes better) healthcare facilities for themselves and their dependents.

Veterans also influence decisions that their countries make with respect to use of military force. Veterans' preferences about use of force more closely resemble those of active duty service members than the attitudes of civilians with no military experience. The preferences of both veterans and active personnel regarding the use of force can influence decision making both through the ballot box and also when veterans themselves join the executive or legislative branches of government. (As Christopher Gelpi and Peter D. Feaver note, veterans participate in the judiciary branches of government as well, but the judiciary has not been involved in US decisions to use military force.)<sup>12</sup>

Civilian and military leaders alike have often hailed the military as a "school for the nation" that would transform multiethnic chaos into a cohesive national order.<sup>13</sup> Motivated by this belief in the nation-building powers of national militaries, countries all over the world "embraced universal conscription both to bolster their country's military power and to inculcate national values."<sup>14</sup> In some cases, militaries have sought to expand their military recruitment base because they face challenges meeting their recruitment targets or fear they may face such challenges in the future. For example, the US military continues to explore new ways to tap into fast-growing demographic markets (for example Hispanics), fearing that a failure to do so may result in shortfalls in the future. These concerns tend to be most acute during periods of economic expansion, when high-quality youth have more options beyond military service.<sup>15</sup>

Just as states have tried to use military service to forge national identity and standardize the experience of citizenship, marginalized communities within the nation-state have sought to expand their access to military service so they may lay greater claim to rights by invoking their military contributions. Ronald R. Krebs examines how African Americans, women, and LGBT

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Peter Siminski, "Employment Effects of Army Service and Veterans' Compensation: Evidence from the Australian Vietnam-Era Conscription Lotteries," *Review of Economic and Statistics* 95, no. 1 (March 2013), <http://www.mitpressjournals.org/toc/rest/95/1>.

<sup>12</sup> Gelpi and Feaver, "Speak Softly and Carry a Big Stick?"

<sup>13</sup> Krebs, *Fighting for Rights*, 1.

<sup>14</sup> *Ibid.*, 1

<sup>15</sup> For a discussion of the need for greater ethnic diversity in the US armed forces, see John Kruzal, "Mullen Reveals Lessons that Shaped His Stance on Diversity," *Department of Defense News*, 17 September 2009; Beth J. Asch et al., *Military Enlistment of Hispanic Youth: Obstacles and Opportunities* (Santa Monica, CA: RAND, 2009); David J. Armor, "Race and Gender in the US Military," *Armed Forces & Society* 23, no. 1 (Fall 1996); David J. Armor and Curtis L. Gilroy, "Changing Minority Representation in the US Military," *Armed Forces and Society* 36, no. 2 (January 2010); Jorge Mariscal, "Immigration and Military Enlistment: The Pentagon's Push For The Dream Act Heats Up," *Latino Studies* 5, no. 3 (2007).

individuals in the United States have tried to force the US military to permit them to join its ranks and/or to expand access to occupational specialties previously closed to them. With varying degrees of efficacy, these groups have based their claims to greater equality and enfranchisement at least in part on their collective contributions through their military service.<sup>16</sup> Krebs also analyzes the case of Israel, where the Druze population used access to the Israeli Defense Force as the foundation for its struggle for greater civil and political rights. While the Druze were successful, Muslim and Christian Israelis failed in their attempts to use the same strategy.<sup>17</sup>

The Pakistan Army has also sought to use its military manpower policies to achieve social and national goals. This fact may surprise some observers. At home and abroad, the Pakistan Army is often depicted as a “rogue” or “Islamist army.”<sup>18</sup> Others decry it as a colonizing or oppressive force that suppresses Pakistan’s ethnic minorities (for example the Sindhis, Baloch, and tribal Pashtuns, and, until 1971, the Bengalis).<sup>19</sup> But the Pakistan Army has not dismissed these charges. In fact, in recent years, its own leaders have become deeply concerned about the degree to which the force has been infiltrated by Islamists.<sup>20</sup> As in other states, the army has long sought to use its manpower policies to unite a multi-ethnic population, elements of which have long resisted inclusion in the Pakistani national project. Yet Pakistan faces different constraints than other countries that have sought to perform this feat. The Pakistan Army seeks to use its manpower policies to draw in persons who have little or no interest in, or even outright resist, the army or the national project. Yet, as I show below, despite the important potential trade-offs for military readiness, the Pakistan Army has been successful in shaping the geographic, if not ethnic, base of its officer corps. This suggests

<sup>16</sup> Krebs, *Fighting for Rights*.

<sup>17</sup> Krebs, in *Fighting for Rights*, uses several case studies in an effort to understand the conditions under which this strategy succeeds or fails.

<sup>18</sup> A famous Pakistani cartoonist recently depicted the Pakistan Army’s evolution into a jihadi organization. Sabir Nazir, *Viewpoint*, online issue no. 97, April 2012, <http://www.viewpointonline.net/index.php?d=APRIL&e=2012-04-22&i=97&m=20&op=Arch&r=2012-04-18&y=2012>. See also, inter alia, Aatish Taseer, “Pakistan’s Rogue Army Runs a Shattered State,” *Financial Times*, 5 May 2011, available at <http://www.ft.com/intl/cms/s/0/ed7622b4-773e-11e0-aed6-00144feabdc0.html#axzz2GAtZNOxb>; Amulya Ganguli, “Pakistan: Rogue State with a Rogue Army,” *MSN News*, 4 December 2010, <http://news.in.msn.com/national/article.aspx?cp-documentid=4658203>.

<sup>19</sup> Human Rights Watch, “I Can Torture, Kill, or Keep You for Years,” Human Rights Watch, 2011, <http://www.hrw.org/sites/default/files/reports/pakistan0711WebInside.pdf>; “Report On Human Rights Violations in Sindh, Pakistan (January–June 2006),” World Sindhi Institute, July 2006, [http://www.worldsindhi.org/publishedreports/reports/wsi\\_2006\\_report.pdf](http://www.worldsindhi.org/publishedreports/reports/wsi_2006_report.pdf); Owen Bennett Jones, *Pakistan: Eye of the Storm* (New Haven, CT: Yale University Press, 2002); “Report Exposes ‘The Hands of Cruelty’ in Pakistan’s Tribal Areas,” Amnesty International, 12 December 2012, <https://www.amnesty.org/en/news/report-exposes-hands-cruelty-pakistan-s-tribal-areas-2012-12-12>.

<sup>20</sup> Reza Jan, “Militant Sympathies in Pakistani Army’s Senior Ranks,” AEI Critical Threats Project, 22 June 2011, <http://www.criticalthreats.org/pakistan/reza-jan-militant-sympathies-pakistan-army-june-22-2011>.



that the Pakistan Army is a more responsible steward of its own, as well as regional, security than the popular press may suggest.

### The Pakistan Army

With an end-strength of 550,000, the Pakistan Army is the fifth largest army in the world.<sup>21</sup> While the army confronts many internal security threats, it remains a manpower-intensive conventional force, focused nearly exclusively on its nemesis to the east: India.<sup>22</sup> For much of Pakistan's history, the army has dominated the state, either directly (during periods of military rule) or indirectly (manipulating civilian politics when it is officially out of power). The army has developed a vast welfare system that provides serving and retired officers and enlisted personnel with preferential access to high-quality schools, hospitals, and housing, as well as lucrative opportunities in businesses run either by the army or by army-affiliated welfare organizations.<sup>23</sup> Given the inordinately large role that the army plays in the social, political, and economic life of Pakistanis, the fact that it is dominated by two ethnic groups, Punjabis and Pashtuns (comprising 45 percent and 15 percent of Pakistan's population, respectively) continues to spark criticism.<sup>24</sup> In the eyes of many Pakistanis, the army not only prevents democracy from fully developing, it also denies certain ethnic groups the opportunity to benefit from the system of amenities available to its personnel. (A brief overview of the Pakistan Army's recruitment procedures is given in Appendix A.)

International actors are also concerned about the Pakistan Army's composition. They worry about Pakistan's militarized dispute with India over Kashmir and the attendant possibility of nuclear war; the potential for further

<sup>21</sup> *Military Balance 2012*, International Institute for International Studies, London, 2012, 272.

<sup>22</sup> For various discussions of the factors that influence a state's manpower strategies, see Irving Louis Horowitz "Human Resources and Military Manpower Requirements," *Armed Forces and Society* 12, no. 2 (Winter 1986); Todd S. Sechser and Elizabeth N. Saunders, "The Army You Have: The Determinants of Military Mechanization, 1979–2001," *International Studies Quarterly* 54, no. 2 (June 2010); Lawrence J. Korb, Peter Ogden, and Frederick W. Kagan, "Jets or GIs? How Best to Address the Military's Manpower Shortage," *Foreign Affairs* 85, no. 6 (November/December 2006); Lawrence J. Korb and David R. Segal, "Manning and Financing The Twenty-First-Century All-Volunteer Force," *Daedalus* 140, no. 3 (Summer 2011); Peter Berck and Jonathan Lipow, "Military Conscription and the (Socially) Optimal Number of Boots on the Ground," *Southern Economic Journal* 78, no. 1 (July 2011); George H. Quester, "Demographic Trends And Military Recruitment: Surprising Possibilities," *Parameters* 35, no. 1 (Spring 2005).

<sup>23</sup> Shuja Nawaz, *Crossed Swords: Pakistan, Its Army and the Wars Within* (New York: Oxford University Press, 2008); Ayesha Siddiqa, *Military Inc.: Inside Pakistan's Military Economy* (London: Pluto Press, 2007); Hussain Haqqani, *Pakistan: Between Mosque and Military* (Washington, DC: Carnegie Endowment for International Peace, 2005).

<sup>24</sup> Pakistan is a Muslim-majority, multi-ethnic state with an estimated population of roughly 190 million. Punjabis, the largest ethnic group, comprise 45 percent of the population; followed by Pashtuns (15 percent); Sindhis (14 percent); Sariahis (8 percent); Muhajirs, Urdu speakers who migrated from India before or shortly after independence (8 percent); and Baloch (4 percent). The remaining 6 percent belong to various other ethnic groups. *CIA World Fact Book 2012*, Central Intelligence Agency, Washington, DC, 2012.

Pakistani horizontal or vertical nuclear proliferation;<sup>25</sup> the Pakistan Army's long-standing ties to international, regional, and domestic Islamist militant groups;<sup>26</sup> and, concomitantly, Islamization of the Pakistan Army, with elements of the force becoming increasingly sympathetic to or infiltrated by Islamist militants.<sup>27</sup> While the Pakistan Army is aware of these concerns, it has its own worries. In recent years, it has become increasingly concerned about the "insider threat" posed by personnel sympathetic to Islamist terrorists.<sup>28</sup> This fear has resulted in upgrades to the security of its nuclear arsenal.<sup>29</sup> And the army has been placed under strain by the continued need for military operations to confront ethnic and Islamist violence across large swathes of the state, as well as its lingering inability to diversify its ranks.<sup>30</sup>

Consistent with the Pakistan Army's belief that it is the preeminent organization in Pakistan, it has made itself responsible for the territorial and ideological "defence of the country," which it defines as "safeguard[ing] the integrity, territorial boundaries and the ideological frontiers to which the country owes its existence."<sup>31</sup> There are several reasons that this mission requires the Pakistan Army to improve minority representation. First and foremost, the army aspires to be representative of Pakistan and to be seen as such. In terms of citizenship and equal opportunity, it is important that all Pakistanis be allowed (or at least believe that they are allowed) to participate equally in the obligations and rewards of military service.<sup>32</sup> The persistent belief that the army is an exclusive club of Punjabis and Pashtuns underscores

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<sup>25</sup> Paul K. Kerr and Mary Beth Nikitin, *Pakistan's Nuclear Weapons: Proliferation and Security Issues*, Congressional Research Service, Washington, DC, 29 August 2011.

<sup>26</sup> See, inter alia, Arif Jamal, *A History of Islamist Militancy in Pakistani Punjab* (Washington, DC: Jamestown Foundation, 2011); C. Christine Fair, "The Militant Challenge in Pakistan," *Asia Policy* 11 (January 2011); Rizwan Hussain, *Pakistan and the Emergence of Islamic Militancy in Afghanistan* (Burlington, VT: Ashgate, 2005); S. Paul Kapur, *Dangerous Deterrent: Nuclear Weapons Proliferation and Conflict in South Asia* (Stanford, CA: Stanford University Press, 2007); Ashley J. Tellis, C. Christine Fair, and Jamison Jo Medby, *Limited Conflicts under the Nuclear Umbrella—Indian and Pakistani Lessons from the Kargil Crisis* (Santa Monica, CA: RAND, 2001).

<sup>27</sup> George Friedman, "Stratfor Global Intelligence, Geopolitical Weekly—Pakistan and its Army," 6 November 2007, [http://www.stratfor.com/weekly/pakistan\\_and\\_its\\_army](http://www.stratfor.com/weekly/pakistan_and_its_army); Jonathan Paris, *Prospects for Pakistan* (London: Legatum Institute, 2010); Frédéric Grare, *Pakistan: The Myth of an Islamist Peril* (Washington, DC: Carnegie Endowment for International Peace, 2006).

<sup>28</sup> Imtiaz Gul, "Cover Story: Jihadis in the Ranks," *Newsline*, 28 September 2012.

<sup>29</sup> Christopher Clary, "Thinking about Pakistan's Nuclear Security in Peacetime, Crisis and War," Institute for Defence Studies and Analyses (IDSA) Occasional Paper no. 12, September 2010, [http://www.idsa.in/system/files/OP\\_PakistansNuclearSecurity.pdf](http://www.idsa.in/system/files/OP_PakistansNuclearSecurity.pdf).

<sup>30</sup> Seth G. Jones and C. Christine Fair, *Counterinsurgency in Pakistan* (Santa Monica, CA: RAND, 2010).

<sup>31</sup> Col. Saifi Ahmad Naqvi, "Motivation Training in Pakistan Army," *Pakistan Army Green Book 1994: Training in the Army* (Rawalpindi, Pakistan: Army GHQ, 1994), 184.

<sup>32</sup> The Pakistan Army, like many other national armies, is still a largely male institution, but women do participate, mostly in the fields of health and education. Pakistan produced the first female major general in the army of any Islamic country: Dr. Shahida Malik became a major general of the Pakistan Army on 17 June 2002. She assumed the position of inspector general of thirty-one Pakistan Army hospitals.

the extent to which Pakistan's citizens do not see the army as a representative national institution, even though they generally hold it in high esteem (particularly when compared to other national institutions).<sup>33</sup>

A second reason for the army's desire to achieve greater diversity within the armed forces is its interest in preventing ethno-national unrest and in contending with such conflicts once they emerge. Pakistan has experienced ethno-nationalist insurgencies of varying lethality and intensity in Baluchistan, Sindh, and Khyber-Pakhtunkhwa (KP). By bringing these fractious groups into the fold of the army, and thus into the national project, the army hopes to dampen their rebellious tendencies. When such conflicts develop, the army also needs personnel who know the physical terrain and who understand the language, culture, and other human terrain features of the affected region. Without such assets, the security forces cannot effectively confront domestic rebels. The army's cognizance of this need has deepened over the last decade.<sup>34</sup>

The case of East Pakistan, now Bangladesh, also provides a cautionary tale. As early as 1959, President and Field Marshal Ayub Khan lowered recruiting standards in the hopes of attracting more East Pakistanis, who were virtually absent from the military. While these efforts resulted in an increase in Bengalis in uniform, their numbers never approached a level of representation consistent with their share of the population. This was due to lingering doubts about Bengalis' fitness to serve in the army as well as a lack of interest in military service among the Bengalis themselves.<sup>35</sup> Bengalis' exclusion from the armed forces and underrepresentation in the civilian bureaucracy, combined with West Pakistani efforts to deprive them of political power, contributed to the growth of the secessionist movement in East Pakistan, ultimately resulting in the emergence of an independent Bangladesh in 1971. Scholars, analysts, and even some within the Pakistan Army compare the Bengali rebellion to the current crises in Balochistan, KP, and Sindh. The persistent complaints of Punjabi domination of the state apparatus, and underrepresentation of Sindhis and Baloch within it, have given rise to concerns about the further disintegration of Pakistan.<sup>36</sup> Motivated by

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<sup>33</sup> For recent comparisons of how Pakistanis view the army, relative to other national institutions, see International Republic Institute, *IRI Index: Pakistan Public Opinion Survey July 15-August 7* (Washington, DC: IRI, 2009).

<sup>34</sup> There are important downsides to recruiting from those ethnic groups whose members are engaged in civil strife. Former or retired service members may sympathize with the militants and work clandestinely to help their cause. Veterans of the armed forces may return to the troubled areas and participate in the insurrection, even providing training to the rebels. Units drawn from the area may also be unable or unwilling to act against a group of rebels, which may include their friends, relatives, or others to whom they are linked by tribal or other ties. Indeed, the Pakistan Army has experienced such difficulties in the past, which has tempered its enthusiasm for diversification.

<sup>35</sup> Fair and Nawaz, "The Changing Pakistan Army Officer Corps"; Carey Schofield, *Inside the Pakistan Army: A Woman's Experience on the Frontline of the War on Terror* (Westport, CT: Dialogue, 2011).

<sup>36</sup> This concern has been raised by a number of analysts in the last few decades. See Selig S. Harrison, "The Fault Line between Pashtuns and Punjabis in Pakistan," *Washington Post*, 11 May 2009;

such concerns, the army has tried to expand the numbers of Baloch and Sindhis within its ranks.

A third reason the army has been interested in developing a more representative force stems from the simple fact that it has ruled Pakistan directly for more than half of its independent existence (and indirectly for the remainder). Thus the issue of representation is perhaps even more salient for the Pakistan Army than for those all-volunteer forces that are subject to robust civilian control and do not play a role in governance. Furthermore, over the last six decades, the Pakistan Army has developed a system of lucrative economic and social perquisites that are only available to members of the armed forces. Therefore, the belief that the army is a Punjabi-Pashtun enterprise necessarily raises larger questions about social justice, unequal access to services, and the desirability of turning public goods into the private assets of a military that does not represent the country as a whole.

As is true for other all-volunteer forces, the Pakistan Army's ability to be representative of its population is dependent on demand-side constraints (for example the army's preferences) and supply-side constraints (for example interest in the army among those who meet the eligibility criteria).<sup>37</sup> Whereas many volunteer armies find it difficult to recruit as many high-quality officers as they require, in Pakistan the army receives annually some fifteen thousand applications for about three hundred available slots at the Pakistan Military Academy.<sup>38</sup> This means that the army is likely to receive far more qualified applicants from the Punjab and KP than it has available openings. To achieve ethnic diversity in the force, the army has to work within the constraints of the available supply. Adeney has noted that the army's attempts to expand recruitment in Sindh and Balochistan have not fully succeeded, in part due to negative ethnic stereotypes of Baloch and Sindhis as well as to "structuralist explanations based around the historic low level of education and development that ill-equip people in rural Sindh and Baluchistan to join the officer class, to explanations that Sindhis and Baluchis perceive the army to be an ethnically dominated institution that has been responsible for oppressing them in the past."<sup>39</sup> These perceptions are no doubt buttressed by the direct

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Selig S. Harrison, "Drawn and Quartered?" *New York Times*, 1 February 2008; Ralph Peters, "Blood Borders: How a Better Middle East Would Look," *Armed Forces Journal* (June 2006).

<sup>37</sup> Article 39 ("Participation of People in Armed Forces") of the 1973 Constitution states that the Pakistan Army will be an all-volunteer force. The amended text of the 1973 Constitution can be found at <http://pakistanconstitutionlaw.com/article-39-participation-of-people-in-armed-forces/>. Under the Pakistan Army Act of 1952, the state can introduce compulsory recruitment in an emergency, but this provision has never been invoked.

<sup>38</sup> Stephen P. Cohen, *The Idea of Pakistan* (Washington, DC: Brookings Institution Press, 2004). For a different range of estimates, see Fair and Nawaz, "The Changing Pakistan Army Officer Corps"; Schofield, *Inside the Pakistan Army*.

<sup>39</sup> Katharine Adeney, "The Limitations of Non-consociational Federalism: The Example of Pakistan," *Ethnopolitics* 8, no. 1 (March 2009): 99.

involvement of the army in battling insurgent and terrorist organizations in these provinces.

The army has taken a number of steps to increase the supply of recruits from Balochistan and Sindh: launching targeted recruitment campaigns in both provinces, easing the physical and educational requirements for these groups, establishing military academies in both Balochistan and Sindh, and building numerous primary, secondary, and post-secondary schools in the hopes of improving human capital while cultivating a more positive image of the army among Baloch and Sindhis.<sup>40</sup> There is evidence that at least some of the new officers and enlisted men from Balochistan and Sindh are in fact ethnically Baloch and Sindhi.<sup>41</sup>

What is somewhat extraordinary about the Pakistan case is that despite multiple internal and external conflicts in which the army is involved, the army is still prepared to make compromises to war-fighting ability and readiness in order to achieve this nonmilitary goal of greater ethnic representation. (The army has never considered using forced conscription although it is legally permitted to do so in an emergency.)<sup>42</sup> Given these groups' lack of willingness to serve in the army, and the fact that many of their members do not meet the ordinary requirements for entry into the officer corps, the army must relax its standards to achieve this larger goal of representation while still maintaining battle-readiness. Although it is not publicly known how those officers who were admitted under relaxed recruitment standards fare relative to other officers with respect to retention, promotion, battlefield performance, or other measures, it does appear that the Pakistan Army is attempting to navigate between two needs: on the one hand, easily filling its officer corps with qualified persons from dominant ethnic groups, and, on the other hand, abating quality constraints in order to recruit members of

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<sup>40</sup> Nadir Mir, "Balochistan and the Pakistan Army," *Nation*, 19 October 2012. See also Maj. Sohail Akbar Bajwa, "Developing Balochistan," *Hilal* 48, no. 4 (October 2011); Col. Dr. Muhammad Khan, "Balochistan: One More Step Towards National Integration," *Pakistan Army.com*, 2011; "Army to Recruit 10,000 Baloch Youth," *Pakistan Express Tribune*, 3 January 2011; "Sindh Govt May Sign Accord with Army for Inducting Trained Youths," *Pakistan Today*, 16 September 2012. In 1980, the army created the Sindh Regiment, based near Hyderabad, as a military force composed primarily of Sindhis. It was initially dominated by Punjabis, however, reflecting the fact that it was comprised of ten battalions of the Baloch Regiment and eleven battalions transferred from the Punjab Regiment. To ameliorate Punjabi domination, in 1989 the army established a quota system to ensure that at least half of the Regiment's men were ethnic Sindhis. As of 2008, the regiment had twenty-nine battalions. See "Sindh Regiment," *GlobalSecurity.org*, nd, <http://www.globalsecurity.org/military/world/pakistan/rgt-sindh.htm>.

<sup>41</sup> Khan, "Balochistan: One More Step"; "400 Trained Recruits of Quota from Sindh Will Join Pak Army Today," *The News*, 30 January 2011; "Army Recruits 200 Men from Interior Sindh," *The News*, 20 January 2012; "Army to Recruit 10,000 Baloch Youth," *Pakistan Express Tribune*, 3 January 2011; "PakArmytoRecruitBalochmen," *Pakistan Express Tribune*, 10 April 2010; Mir Nadir, "Balochistan and the Pakistan Army," *Nation*, 19 October 2012; Kashif Munir, "Passing Out Parade of Soldiers From Sindh Held at Pano Aqil Cantt," *The News*, 3 June 2012.

<sup>42</sup> Fair and Nawaz, "The Changing Pakistan Army Officer Corps."

underrepresented groups who are interested in joining but who may be less competitive candidates and who may perform less optimally.

## DATA AND ANALYTICAL METHODS<sup>43</sup>

This study employs three kinds of data. First, to demonstrate the success of the army's effort to expand its geographical recruitment base, I employ historical district-level aggregated recruitment data obtained from the Pakistan Army General Headquarters and employed by Fair and Nawaz.<sup>44</sup> To identify some of the key drivers of these changes and also to demonstrate that the Pakistan Army generally behaves like other armies despite the fact that it is demand-constrained rather than supply-constrained, I estimate a simple recruitment model using the above-noted district-level aggregated recruitment data as well as district-aggregated household survey data. Finally, to explore the impacts of the army's changing recruitment base I use survey data collected from six thousand Pakistani adults in 2009 by Fair, Neil Malhotra and Jacob N. Shapiro.<sup>45</sup> Each of these data sources is described briefly below.

### Officer Recruitment Data and Caveats<sup>46</sup>

For this kind of study, officer-level recruitment data for the Pakistan Army are preferable. Such data are not available publicly, and thus I perforce employ relatively recent district-level data on aggregate officer accessions from between 1970 and 2005. The data used here include the annual numbers of candidates accepted into the Pakistan Military Academy at Kakul from 1970 to 2005, aggregated by candidates' home district.<sup>47</sup> (The district is the level of governance below the provincial level.) While these data are available for the years 1970 through 2005, I employ only data from 1992, 1996, 1999, and 2002, for reasons discussed below.

Fair and Nawaz demonstrate the significant changes in the geographical composition of the Pakistan Army's officer corps. As depicted in Figure 1, from 1970 to 2005, there has been a steady rise in the number of districts that produce a small number of officers (one to five) per year and a decline in

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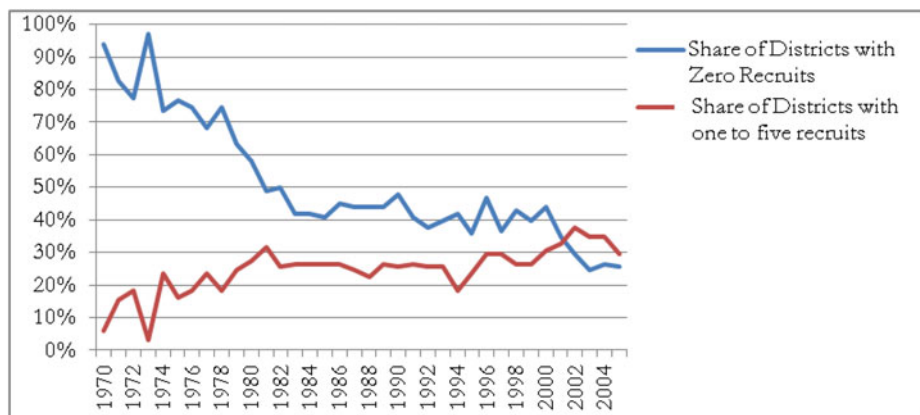
<sup>43</sup> Several people have worked with me on these data including Anirban Ghosh, Jacob N. Shapiro, Graeme Blaire, and Claude Berrebi among others over numerous years.

<sup>44</sup> Ibid.

<sup>45</sup> Graeme Blair, C. Christine Fair, Neil Malhotra, and Jacob N. Shapiro, "Poverty and Support for Militant Politics: Evidence from Pakistan," *American Journal of Political Science* 57, no. 1 (January 2013).

<sup>46</sup> For a more detailed exposition of methods, see Fair and Nawaz, "The Changing Pakistan Army Officer Corps."

<sup>47</sup> The dataset also includes district-level aggregates of the numbers of officers who retired from those districts.

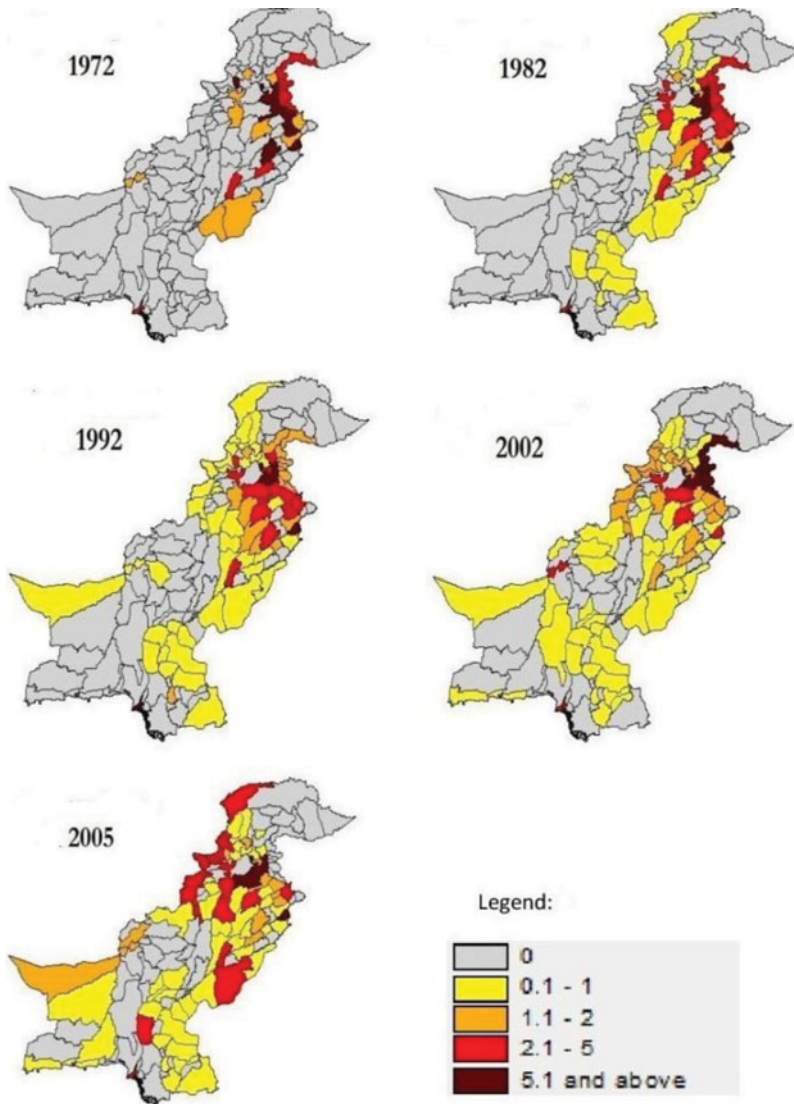


**FIGURE 1** Share of districts that produce one to five officers per year and share of districts that produce zero officers per year.

*Source:* In-house manipulations of army officer recruitment data by Anirban Ghosh. (Color figure available online).

districts that produce none. This means that the officer corps is drawing from an increasing number of districts. Figure 2 shows these changes graphically, depicting annual district market share (number of officers in a district in a year, divided by the total number of officers recruited that year) from 1972 (immediately after the loss of East Pakistan) to 2005. Darker colors correspond to districts with higher market share. As shown in Figure 3, which depicts district-level changes in market share from 1992 to 2002, the districts that have lost market share tend to be in the Punjab, while the gainers are in Balochistan, Sindh, and KP.

Keep in mind that these data can only demonstrate geographical shifts, rather than changes in the ethnic makeup of recruitment classes. For example, the Fair and Nawaz data cannot demonstrate that the increased number of recruits from Balochistan and Sindh in fact means that the army is recruiting more Baloch and Sindhi officers. However, there is other evidence that some of these new recruits are in fact ethnic Baloch and Sindhis. For example, Pakistani Institute for Legislative Development and Transparency (PILDAT)—a well-regarded independent Pakistani think tank—has gathered data on the ethnic composition of the Pakistan Army (albeit without distinguishing between officers and other ranks). PILDAT claims that from 2001 to 2011, the share of the total force coming from the Punjab declined from 62 percent to 55 percent, while representation of Sindhis increased from 14 percent to 17 percent and of Baloch from 2 percent to 4 percent. Pashtuns from KP remained stable at about 14 percent of the force. Nonetheless, Pakistani skeptics of the army's efforts worry that the army is actually merely



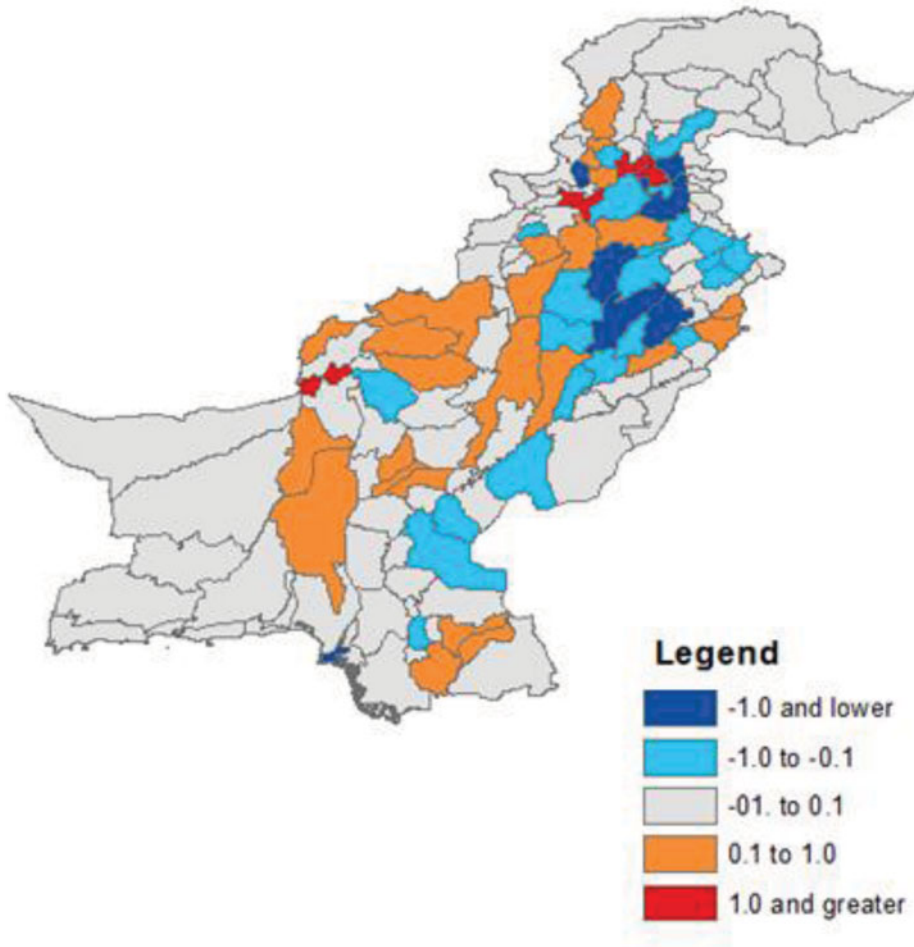
**FIGURE 2** Share of officer recruits by district: 1972, 1982, 1992, and 2005.

*Source:* In-house manipulations of army officer recruitment data by Anirban Ghosh. (Color figure available online).

recruiting from the Punjabi population of Balochistan and Sindh, while advertising its success in recruiting in both provinces as a step toward national integration.<sup>48</sup>

<sup>48</sup> Jahanzeb Hussain and Jannat Majeed, "Baluchistan in Crisis," *Collateral Damage*, 3 August 2012, <http://www.countercurrents.org/hussain030812.htm>.





**FIGURE 3** District-level shifts in market share of officer recruits between 1992 and 2002.  
*Source:* In-house manipulations of army officer recruitment data by Anirban Ghosh. (Color figure available online).

The second dataset used in this study is district-level estimates of economic, demographic, and social characteristics derived from the 1991, 1995, 1998, and 2001 household surveys conducted by the Pakistan Bureau of Statistics (PBS). These data are derived from household surveys as well as district-level assessments of facilities and government services in the four provinces of the Punjab, Sindh, Baluchistan, and KP. The data are weighted to ensure that they are representative at the district level.

To execute the analysis of Pakistan Army recruitment drivers described herein, my research team constructed an analytical dataset using only those

districts and years for which three conditions hold.<sup>49</sup> First, recruitment data are used only from those years for which PBS surveys data were also available. Second, recruitment data are used only for those years for which one-year “lag” variables (for example, years in which data for the previous year were also available) could be created. (Socio-economic and other household variables may not affect recruitment outcomes in the same year.) Third, these models use only those districts and years for which the full set of individual and community characteristics were collected by the PBS across all years in each district. The resultant dataset included district-level recruitment data from 1992, 1996, 1999, and 2002 and district-matched PBS data from 1991, 1995, 1998, and 2001. With four years of data ostensibly available for each of the 98 districts in Pakistan, there are a maximum of 392 possible observations. After weeding out districts that did not meet my criteria (for example, districts for which there are no recruitment data for specific years), my final analytical dataset contains 343 observations.

This approach, which models the relationship between observable changes in officers’ home districts across time and officer recruitment across time and district, is necessarily “second best.” While it provides some insights into changes in the larger social and economic environment of officer-producing districts, one cannot ignore the risk of a fundamental ecological fallacy: one cannot assume that the characteristics of any given district are similar to the characteristics of any particular officer.

Fourth, to evaluate the potential impacts of the army’s geographically expanded recruitment base, I analyze survey data collected by Fair, Malhotra, and Shapiro in 2009 (FMS 2009) and recently published in the *American Journal of Political Science*.<sup>50</sup> The FMS 2009 dataset was collected, using the PBS sample frame, from a random sample of six thousand adult Pakistani men and women in Pakistan’s four provinces (Balochistan, KP, Punjab, and Sindh).<sup>51</sup> The FMS 2009 data are most suitable for this exercise, even though

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<sup>49</sup> The author thanks Anirban Ghosh for his assistance in data handling and analysis and contributing to previous drafts of this section. In addition, I would like to thank Jacob Shapiro for his guidance on this and earlier versions of this paper and the analyses herein.

<sup>50</sup> Graeme Blair et al., “Poverty and Support for Militant Politics.” I am thankful to Michael Hardin for his assistance in the analyses of these data.

<sup>51</sup> The enumerators randomly selected respondents within 500 primary sampling units (PSUs), 332 in rural areas, and 168 in urban ones (following the rural-urban breakdown in the Pakistan census). The team substantially oversampled in Balochistan and KP so that they could generate valid estimates in these provinces, which are sparsely populated by spatially concentrated ethnic enclaves. They calculated post-stratification survey weights based on population figures from the 1998 census, which is unfortunately the most recent census available for Pakistan. The face-to-face questionnaire was fielded by six mixed-gender teams under the auspices of Princeton University’s Internal Review Board from 21 April 2009 to 25 May 2009. Females surveyed females and males surveyed males, consistent with Pakistani norms. The American Association for Public Opinion Research (AAPOR) RRI response rate was 71.8 percent, exceeding the response rates achieved by high-quality academic studies such as the American National Election Study. The questionnaire included dozens of questions meant to assess respondents’ religiosity and religious

they only offer data for a single year.<sup>52</sup> In this analysis, I concentrate on comparing the views of Punjabis living in and outside the Punjab because they are the largest ethnic group represented in the army and because most of the army's assets are based in the Punjab. Punjab hosts the I, II, IV, X, XXX, XXXI Corps as well as the army headquarters, the Air Defense Command, and the Strategic Defense Command. In contrast, KP hosts the XI corps (in Peshawar); Balochistan, the XII Corps (in Quetta); and Sindh, the V Corps (in Karachi).

In the penultimate section of this essay, I evaluate respondents—grouped according to ethnicity and residence—based on their answers to questions regarding support for Islamist militancy, beliefs about governance structures (including civil-military relations), preference for Sharia, and opinions about the aspirations of India's Kashmiri Muslims.<sup>53</sup> This sample is ideal for this purpose, due to its large size, which includes 2,508 respondents from the Punjab, 1,488 from Sindh, 1,128 from KP, and 876 from Balochistan. The FMS 2009 data also includes information about ethnicity of the respondent, which can be approximated by the recorded mother tongue of the respondent. The questions that I employ here are designed to get at the respondent's views on jihad, Islamism, governance, and civil-military affairs and are given below:

Q50. Some people say jihad is a personal struggle for righteousness. Others say jihad is protecting the Muslim Ummah through war. What do you think?

- A) Jihad is solely a personal struggle for righteousness;
- B) Jihad is both a personal struggle for righteousness and protecting the Muslim Ummah through war;
- C) Jihad is solely protecting the Muslim Ummah through war.

Q60. How much do you think Pakistan is governed according to Islamic principles (Sharia)?

- A) Completely
- B) A lot

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practice, sectarian or confessional commitments, preferred governance structures, preferences for the role of religion in the state, and views on an array of domestic and foreign policy issues.

<sup>52</sup> Pew's Global Attitudes Survey includes several years of cross-sectional data for Pakistan, but Pew's samples are invariably small (fewer than one thousand persons) and in heavily urban areas. WorldPublicOpinion.org also has respondent-level data available, but their questionnaire omits questions about ethnicity or mother tongue.

<sup>53</sup> The full FMS 2009 survey instrument and all other analyses are available at <http://esoc.princeton.edu/files/pakistan-fms09-survey-data>.

- C) A moderate amount
- D) A little
- E) Not at all

Q150. Seeing the current situation in Pakistan, do you think that Sharia should play a

- A) Much larger role?
- B) Somewhat larger role?
- C) About the same role?
- D) Somewhat smaller role?
- E) Much smaller role?

Q180. If Sharia were given a greater role in Pakistani law, how much more or less corruption would there be?

- A) A lot more
- B) A little more
- C) No change
- D) A little less
- E) A lot less

Q310. How much do you think Pakistan is governed by representatives elected by the people?

- A) Completely
- B) A lot
- C) A moderate amount
- D) A little
- E) Not at all

Q370. The 1973 Constitution of Pakistan says civilians should control the military. This means the military cannot take action without orders from civilian leaders. In your opinion, how much control should civilians have over the military?

- A) Complete control
- B) A lot of control
- C) A moderate amount of control
- D) A little control
- E) No control at all

Q400. Thinking about the political preferences of Muslims in occupied Kashmir, please tell us which statement you agree with the most:

- A) In occupied Kashmir the majority of Muslims want to be part of India
- B) In occupied Kashmir the majority of Muslims want an independent state
- C) In occupied Kashmir the majority of Muslims want to be part of Pakistan

### RECRUITMENT IN THE PAKISTAN ARMY: CHANGING PATTERNS AND DRIVERS<sup>54</sup>

To cast some light on the drivers of changes to its recruitment base and to demonstrate that despite its peculiarities the Pakistan Army shares many features of other armies, I execute a simple model of army recruitment drawing upon the scholarly literature of military manpower outcomes. Because the scholarly work on military manpower focuses heavily on enlistment of soldiers rather than accession of officers and tends to be based on studies of supply-constrained armies,<sup>55</sup> I modify these models to reflect the peculiarities of the Pakistani officer corps.<sup>56</sup> Specifically, some of the variables that influence recruitment in a supply-constrained model will be less relevant in the context of an overwhelmingly demand-constrained army.<sup>57</sup>

The military manpower literature, albeit based on studies of all-volunteer forces that are supply-constrained, suggests that several factors affect individual propensity to join the army. One consideration is the influencer market. Analysts who study U.S. military recruitment consistently find that areas

<sup>54</sup> Again, I would like to thank Anirban Ghosh for his assistance in data handling to support this section.

<sup>55</sup> Casey Wardynski, David S. Lyle, and Michael J. Colarusso, *Assessing Talent: The Foundation of a US Army Officer Corps Strategy* (Carlisle Barracks, PA: Army War College, Strategic Studies Institute, 2010); Kevin D. Stringer, "The War on Terror and the War for Officer Talent: Linked Challenges for the U.S. Army" (Land Warfare paper no. 67, Arlington, VA: Institute of Land Warfare, 2008); Charles A. Henning, *Army Officer Shortages: Background and Issues for Congress* (Washington, DC: Congressional Research Service, 2006).

<sup>56</sup> John T. Warner, Curtis J. Simon, and Deborah M. Payne, "The Military Recruiting Productivity Slowdown: The Roles of Resources, Opportunity Cost and the Tastes of Youth," *Defence and Peace Economics* 14, no. 5 (October 2003); Bruce R. Orvis and Beth J. Asch, *Military Recruiting: Trends, Outlook, and Implications* (Santa Monica, CA: RAND, 2001); Bruce R. Orvis, Narayan Sastry, and Laurie L. McDonald, *Military Recruiting Outlook: Recent Trends in Enlistment Propensity and Conversion of Potential Enlisted Supply* (Santa Monica, CA: RAND, 1996); Beth J. Asch and Bruce Orvis, *Recent Recruiting Trends and Their Implications* (Santa Monica, CA: RAND, 1994).

<sup>57</sup> For the use of a similar approach to examine reenlistment decisions in the Turkish armed forces, see Jülide Yildirim and Bülen Erdiñç, "The Re-Enlistment Decision In Turkey: A Military Personnel Supply Model," *Defence and Peace Economics* 18, no. 4 (August 2007); Jülide Yildirim, Nebile Korucu, and Semsettin Karasu, "Further Education or Re-Enlistment Decision in Turkish Armed Forces: A Seemingly Unrelated Probit Analysis," *Defence and Peace Economics* 21, no. 1 (February 2010).

whose inhabitants are positively disposed toward service in the armed forces tend to produce persons with a higher propensity (or taste) for military service. Similarly, one of the best predictors of whether or not an area will produce enlistments is a past history of production.<sup>58</sup> A second cluster of drivers is fundamental human capital endowments. Volunteer armies, like other hirers of labor, have quality and aptitude standards that are preconditions for selection into the force. A third cluster of factors pertains to features of the labor market: the competing opportunities available to an individual (dependent on his human capital endowments: education, experience, aptitude, etc.) and thus the opportunity cost of military service. Armies that are supply-constrained tend to meet their recruitment targets more easily during difficult economic times, when high-quality potential recruits have fewer alternatives to military service.<sup>59</sup>

In the case of Pakistan, officer recruitment is massively demand-constrained. Thus I do not expect to see the same economic effects unless socio-economic conditions are the primary drivers of accession for the vast majority of the applicants. No available study of the Pakistan Army suggests that this is the case; indeed, economically disadvantaged people are less likely to meet the educational standards imposed by the army, given the educational situation in Pakistan, where 55 percent of citizens are illiterate and only 14 percent have gone beyond the tenth grade.<sup>60</sup>

A fourth set of considerations includes the various transaction costs associated with seeking military employment (for example, distance to a recruitment center, cost of traveling to such a center, etc.) and the resources available to military recruiters and related bureaucracies. In the United States, these transaction costs can be substantially lowered in order to facilitate a youth's decision to enlist. Recruiters, who are often based in high schools, will come to a recruit's home to meet with parents and to complete all paperwork and will even ensure that a student has transportation to the various appointments and evaluations required. (To a lesser extent, this is true for officer accessions as well.) Unsurprisingly, US recruiter effort and skill have been found to be important factors in the army's ability to meet its accession targets in a supply-limited market.<sup>61</sup> The Pakistan Army has no incentive to lower this barrier to pursue the army as a career. In fact, the

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<sup>58</sup> Warner et al., "The Military Recruiting Productivity Slowdown"; Orvis et al. *Military Recruiting Outlook*; John H. Faris, "The All-Volunteer Force: Recruitment from Military Families," *Armed Forces and Society* 7, no. 4 (1981).

<sup>59</sup> Warner et al., "The Military Recruiting Productivity Slowdown."

<sup>60</sup> "Percentage Distribution of Population by Age, Sex Literacy [sic] and Level of Education 2008–09," Pakistan Bureau of Statistics, 2009, [http://www.pbs.gov.pk/sites/default/files/Labour%20Force/publications/lfs2008\\_09/t03.pdf](http://www.pbs.gov.pk/sites/default/files/Labour%20Force/publications/lfs2008_09/t03.pdf).

<sup>61</sup> James N. Dertouzos and Steven Garber, *Human Resource Management and Army Recruiting: Analysis of Policy Options* (Santa Monica, CA: RAND, 2006); James N. Dertouzos and Steven Garber, *Performance Evaluation and Army Recruiting* (Santa Monica, CA: RAND, 2008).

reverse is true: a potential officer's ability to navigate through the recruitment process may be self-selecting for quality, motivation, and resourcefulness, and may serve as a market signal that helps the army discern the best and most capable from among the deluge of recruits.

In an effort to model district-level recruitment outcomes, I employ the theoretical approach employed by Charles Dale and Curtis Gilroy, and John Warner and Beth Asch.<sup>62</sup> Dale and Gilroy model the determinants of military enlistment rates in the United States as a function of the business cycle (as a measure of competition for recruits); the level of military pay compared to compensation offered by other employment opportunities; the various benefits of enlistment, such as recruitment bonuses and educational benefits for the recruit and family members; expenditure on recruiting and advertising (as a measure of recruitment resources expended to convert persons with propensities to join the military into actual recruits); and time-specific indicators, such as a dummy for GI Bill expiration and seasonal indicators.<sup>63</sup> Both Dale and Gilroy and Warner and Asch use familiar empirical specifications of a reduced form equation, in which the dependent variable, the number of military personnel recruited or enlisted, is modeled on a number of independent variables which they contend affect military recruitment outcomes.<sup>64</sup>

These empirical specifications were modified both to account for those aspects of the recruitment process that cannot be observed without individual-level data and for the demand-constrained nature of the Pakistan Army. Because the demand-side constraints are generally constant, this paper focuses on the supply-side drivers of army recruitment in Pakistan.

I hypothesize that while a certain level of academic ability is necessary to satisfy the Pakistan Army's requirements, individuals with more than the minimum necessary level of ability are likely to pursue more lucrative private sector jobs.<sup>65</sup> Proxies for human capital include the ability to do simple sums and the average years of schooling for males in the district. (The literacy

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<sup>62</sup> Charles Dale and Curtis Gilroy, *The Economic Determinants of Military Enlistment Rates* (Arlington, VA: US Army Research Institute for the Behavioral and Social Sciences, 1983); John Warner and Beth Asch, "The Economics of Military Manpower," in *Handbook of Defense Economics: Volume 1*, eds. Keith Hartley and Todd Sandler (Amsterdam: Elsevier, 1995).

<sup>63</sup> Warner and Asch employ a model in which the dependent variable is the equilibrium number of enlistees in the US military. Independent variables include military pay, baseline eligibility requirements, and recruiter effort. An important contribution of second-generation research on military recruitment, such as that of Warner and Asch, is the recognition that recruiter effort has a significant effect on both the quantity and the quality of the recruited personnel. This is because, in the United States, recruitment has been until recently tightly supply-constrained, with the US military struggling to make its recruitment targets. This is an important departure from the Pakistani context, which is extremely demand-constrained. Thus data on recruiter effort—even if they were available to us—likely would be irrelevant to this case. See Fair and Nawaz, "The Changing Pakistan Army Officer Corps"; Schofield, *Inside the Pakistan Army*.

<sup>64</sup> Dale and Gilroy, "The Economic Determinants of Military Enlistment Rates;" Warner and Asch, "The Economics of Military Manpower."

<sup>65</sup> Author fieldwork in Pakistan between 2002 and 2010.

measure was too unreliable to use.) I expect the former to be positively correlated to recruitment, as this variable should not have diminishing margins of return. In contrast, I expect that male educational attainment will be nonlinear: most Pakistani males do not meet the officer corps' educational requirement of twelve years of schooling, while those who have pursued education beyond twelve years will likely seek employment in the private sector. According to the most recent (1998) Pakistani census, 87 percent of Pakistanis do not have more than a tenth grade education. The remainder of the population is divided roughly equally between those with twelve years of education (less than 7 percent) and those with more than twelve years of education (also less than 7 percent). Thus, twelve years is the optimal education level as far as officer production is concerned: educational attainment of more or less than twelve years will result in a lower probability of becoming an officer.<sup>66</sup>

I expect that socio-economic conditions will have only a limited impact on officer recruitment outcomes, due to the massive over-supply of recruits relative to demand and because candidates who meet the army's eligibility requirements are unlikely to come from impoverished families. The available literature on Pakistan Army recruitment suggests that while officers are no longer coming exclusively from elite families, the majority of them still come from solidly middle-class backgrounds.<sup>67</sup> District-level Gini coefficients are used to instrument for income disparity. Average male wages in a district, labor force participation rates, and the share of the population made up of males between twenty and twenty-nine are used to proxy for labor market conditions. (This age bracket is the best available proxy for the target age group of the officer corps.) All else being equal, for supply-constrained armies higher inequality should positively correlate with recruitment, districts with better labor market opportunities and higher wages should produce fewer officers, and the number of recruits should be positively correlated with the share of eligible men in the population. But as noted above, given the demand-constrained nature of Pakistani army recruiting, I do not expect to see strong correlations between these variables and recruitment outcomes. I nonetheless include them because they are standard explanatory variables in supply-constrained models.

In addition, the number of private high schools in a district is used to proxy the socio-economic characteristics of a given district in a given year. While one may expect little yearly variation in this figure, variation is in fact considerable, most likely because private schools in Pakistan, as elsewhere, aggregate local demand for elite education and are typically more expensive than public schools. Thus private schools open and close subject to market

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<sup>66</sup> "Educated Population by Level of Education," Pakistan Population Census Organization, 1998, <http://www.census.gov.pk/LevelofEducation.htm>.

<sup>67</sup> Cohen, *The Idea of Pakistan*; Schofield, *Inside the Pakistan Army*.



conditions. Unlike the other socio-economic variables, I do expect this variable to be significant, with a negative effect on recruitment, because the supply of relatively more expensive private high schools is demand-driven and reflects relatively greater willingness to make educational investments that prepare a youth for higher education—and eventually well-compensated, private sector opportunities—rather than military service.

Another important district-level variable in this model is the share of households in the district that are located in an urban area (“percent urban”). I expect urban districts to produce more officers, if for no other reason than that most of Pakistan’s recruitment centers are in cities (for example, Peshawar (KP); Rawalpindi, Lahore, and Multan (Punjab); Hyderabad and Karachi (Sindh); Quetta (Baluchistan); and Gilgit (Gilgit Baltistan)).<sup>68</sup> Urban areas in Pakistan tend to be better served by public transportation and thus travel within them would not require overnight stays in hotels. In contrast, persons in rural areas are less likely to live close to a recruitment facility and thus would have to make a costly journey to reach one.

While I cannot account for individual tastes without individual-level data, I can say something about the relative progressive or conservative orientation of the districts that produce officers. I include variables for female educational attainment and women’s average age at marriage as proxies for individual preferences. If the army is recruiting from districts that are more socially conservative, then I expect the coefficient on these variables to be negative, and the reverse to be true if the army is recruiting from more progressive districts. These variables also offer some indirect insight into the trends in piety and conservatism within the office corps.

I also include district (as well as year) fixed effects because district fixed effects will proxy several different phenomena that I cannot explicitly include in my model due to the nature of my data. First, district effects will likely capture some aspects of the influencer market, including history of past recruitment and local feeling about the army. I know that the presence of retired and currently serving officers produces what I call “network effects” and information asymmetries between relatively recruitment-heavy districts and recruitment-sparse districts. Network effects can take any one of several forms. For example, potential recruits in recruitment-rich districts can more easily seek counsel from other officers on how best to prepare for the selection process (which includes physical and intellectual exams and several interviews) than those in districts with little or no history of army service. Indeed, Carey Schofield found that applicants rely heavily upon current and retired officers for guidance in preparing their applications.<sup>69</sup>

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<sup>68</sup> Join Pakistan Army, Pakistan Army Official Recruitment Website, <https://www.joinpakarmy.gov.pk/>.

<sup>69</sup> Schofield, *Inside the Pakistan Army*.

Another way in which a district's past production may influence its current production is the simple fact that, although the vast majority of the officer corps lives a relatively modest life, military families tend to have better access to education and healthcare opportunities.<sup>70</sup> This suggests that, all else being equal, the presence of officers may be correlated with higher human capital endowments. I anticipate that district fixed effects will also capture these "network effects." Admittedly, this concept of "network" effects may involve yet other processes that have not occurred to me; unfortunately, there is little I can do with the data at hand to disambiguate which, if any, of these possible processes are at play.<sup>71</sup> The district-level fixed effects proxy these network effects, as well as any unexplained district shocks or other features outside of my model.

### Analytical Methods and Empirical Specification

The variable of interest for this study is the number of officers recruited from a given district,  $i$ , for a given year,  $t$ . Thus, I use the empirical specification

$$R_{it} = \beta \mathbf{X}_{i,t-1} + \gamma_i + \theta_t + \varepsilon_{it} \quad (1)$$

where  $R_{it}$  is the number of officers recruited from district  $i$  at time  $t$ , and  $\mathbf{X}$  is a vector of independent variables that I believe influence army officer recruitment in Pakistan, as described above. I lag the independent variables by one year to model a more intuitive chronology in which there is a time lag between the decision to join the army and the actual act of joining the officer corps.<sup>72</sup> Similarly, the economic situation in a given year is highly unlikely to impact actual enlistment or accession in that same year. I model the error term to have a year-specific element,  $\theta_t$ , a district specific element,  $\gamma_i$ , and an independent element. Thus, when I use year and district fixed effects, the resulting model can be estimated using ordinary least squares regression, and the  $\beta$ s are the coefficients of interest.<sup>73</sup> Similar specifications of army recruitment have been used by other analysts of military manpower

<sup>70</sup> Siddiqua, *Military Inc.*

<sup>71</sup> Unfortunately, when seeking to explain network effects I am at the limits of my data. However, I did explore two possible explanations of "network effects" that I can tentatively test. First, I tested the supposition that a district's previous history of recruitment predicts future recruitment. This is consistent with the "influencer market" effects described in the literature. I do find a strong positive correlation between retirements and recruitments between 1970 and 2005: for each person retiring, 2.2 additional officers are recruited from the district. The R-squared for the regression cumulative recruits against cumulative retirees is 87.3 percent. I also tested the possibility that cumulative retirees increase the human capital endowment of the district by regressing average male years of education on cumulative retirees along with year and district fixed effects for the years 1991, 1996, 1999, and 2002. I find that the coefficient on cumulative retirees is positive and significant at the 0.05 level. Thus I find evidence that both of these mechanisms are at work.

<sup>72</sup> The lag structure may also alleviate any reverse causality, at least to some extent.

<sup>73</sup> I also cluster the errors at the district level in all my specifications.

**TABLE 1** Summary Statistics of Dependent and Independent Variables

	Observations	Number of Districts	Mean	S.D.	Min	Max
Recruits	343	98	9.53	20.23	—	194.00
Male Wages in 000s	343	98	27.15	18.99	1.75	197.11
Private High Schools	343	98	1.06	3.93	—	66.00
District Gini	343	98	0.50	0.14	0.18	0.82
Percentage Urban	343	98	0.31	0.40	—	1.00
Population Share, Males 20 to 29	343	98	0.08	0.01	0.04	0.12
Male Years of Education	343	98	7.11	1.54	2.92	10.96
Female Years of Education	343	98	5.90	1.96	1.00	13.00
Age at Marriage: Females	343	98	19.18	2.42	15.29	26.23
Labor Force Participation	343	98	0.22	0.12	—	0.50
Numeracy	343	98	0.67	0.21	0.2	1.00

to model army recruitment in the United States, and Efraim Benmelech, Claude Berrebi, and Esteban F. Klor use a similar specification to model the quality and production of suicide bombers in Palestine.<sup>74</sup>

Table 1 shows the summary statistics for the two dependent variables and the independent variables used in this study. Note that I have four years of data for each district. For the dependent variables, these are 1992, 1996, 1999, and 2002. For the independent variables, the years of observation are 1991, 1995, 1998, and 2001. (These variables are lagged relative to the dependent variable.) On average, each year fewer than 10 army officers are recruited from any given district; but there is significant variation across districts. Unsurprisingly for Pakistan, the mean number of years of education for males, at 7.1 years, is higher than for females, at 5.9 years. Numeracy is defined as the share of the population that is able to do a simple math problem. The remaining variables are self-explanatory and discussed above.

### Drivers of Recruitment Outcomes: Results<sup>75</sup>

I present my regression results in Table 2.<sup>76</sup> As I suspected, male education is negative and significant, whereas basic numeracy (ability to do simple sums)

<sup>74</sup> For the US Army recruitment model, see Dale and Gilroy, "The Economic Determinants of Military Enlistment Rates"; Warner and Asch, "The Economics of Military Manpower"; for the suicide bombers model, see Efraim Benmelech, Claude Berrebi, and Esteban F. Klor, "Economic Conditions and the Quality of Suicide Terrorism," *Journal of Politics* 74, no. 1 (January 2012).

<sup>75</sup> Many thanks to Anirban Ghosh for the data handling to support this section.

<sup>76</sup> My suspicions about network effects are borne out in the data: for example Rawalpindi is the only district that produced in excess of a hundred officers in each of the years in my data. (Rawalpindi, home to the Army's General Headquarters, remains an important destination for officer retirements due

**TABLE 2** Drivers of Pakistani Officer Recruitment

Variables	Model 1 Recruits	Model 2 Recruits	Model 3 Recruits
Male Wages in 000s	-0.0049	-0.0026	0.0607
	-0.0259	-0.0244	-0.0616
Private High Schools	-0.1523***	-0.1470***	-0.1422***
	-0.0384	-0.041	-0.0475
District Gini	-0.2044	0.2382	7.0963
	-4.2542	-4.0929	-6.7071
Percentage Urban	-2.5168	-2.0557	-3.3997
	-1.9390	-1.8208	-2.4093
Males 20 to 29's	-32.4076	-1.0737	-72.713
Share of Population	-40.7425	-25.427	-70.0515
Years of Education (Men)	-0.9504**	-0.6335*	-1.7712*
	-0.4733	-0.3445	-0.9268
Years of Education (Women)	0.3807	0.2772	0.7103
	-0.2473	-0.2182	-0.4679
Age at Marriage (Women)	-0.5477	-0.6141*	-0.5048
	-0.3696	-0.3324	-0.7514
Labor Force Participation	8.0097*	4.5480	7.3051
	-4.5799	-2.9080	-6.8572
Numeracy	3.6517**	3.5578**	6.4830*
	-1.755	-1.6513	-3.5368
Year: 1996	-4.5842	-3.0432	-7.5953
	-3.0063	-2.3781	-5.0338
Year: 1999	-3.1282*	-2.3495	-3.5913
	-1.7911	-1.4913	-3.121
Year: 2002	-6.4842**	-4.9443**	-9.2196**
	-2.6535	-2.0836	-4.3855
Constant	27.7557***	22.7122***	33.3029**
	-8.1002	-7.2037	-13.0638
District Fixed Effects	Yes	Yes	Yes
Observations	343	339	228
R-squared	0.2023	0.2304	0.2884
Number of Districts	98	97	75

NOTE: OLS coefficients with errors clustered at the district level. The omitted year is 1992. Standard errors in parentheses. \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

is positive and significant. Similarly, the coefficients on private high schools and male education are negative and significant (as I predicted). These results are consistent with the hypothesis that there is a very thin band of education (at or slightly above twelve years) that predicts officer recruitments, with diminishing returns for more education. The nonlinear impacts of education on recruitment outcomes are explored further in the next section. Numeracy, however, remains positive and significant. This is likely due to the simple fact that the numeracy measure (the ability to do simple sums) is exceedingly

to its amenities and proximity to the nation's capital, Islamabad.) Statistically, the average variance in the number of recruits across districts, at 18.3, is 3 times higher than the average annual variance within a district, 6.24. This statistic shows that high-producing and low-producing districts retain this attribute across time—an argument for the need for district level fixed effects.

basic. As anticipated, most of the labor force measures are not relevant, with one important exception: as district labor force participation increases, so does recruitment. I expected this coefficient to be either insignificant, owing to the Pakistan Army's excess supply, or negative, as would be the norm for supply-constrained armies. This suggests that districts where the labor market performs well tend to produce more officers. Such a situation would be anomalous in a supply-constrained context. This finding, which is barely significant, may suggest something unique about demand-constrained armies, or it may be due to chance. I am unable to interpret this coefficient further with the available data.

Finally, neither urbanicity nor female education is significant, although both are positive and significant when I exclude district fixed effects. This suggests that it is not residence in an urban area or levels of female education per se that influences recruitment outcomes so much as other endogenous features of a district (for example road density, availability of public transport, density of army facilities and recruitment centers, or greater availability of schools in urban areas).<sup>77</sup>

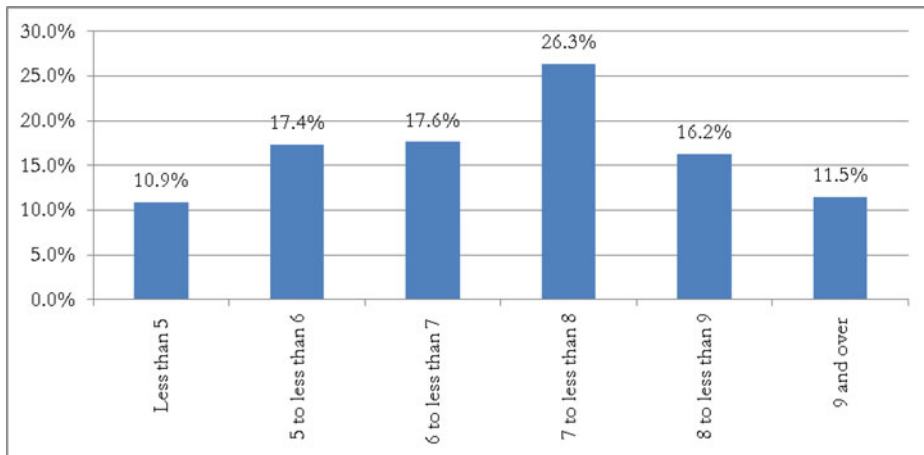
Several diagnostics were performed to ensure that these results are not driven by outliers in the dependent variable. Model 2 eliminates the top 1 percent of the observations in gross recruits to evaluate the model used in Model 1 using only the bottom 99 percent of recruit-producing districts. In essence, this meant dropping all four years of observations from the Rawalpindi district. To further evaluate the sturdiness of the estimates of Model 1, in Model 3 I eliminate all of the districts that did not produce any officers in any one year. (Many districts in the sample produced no officers in some years.) Doing so results in a sample of 228 observations. Analysis of Models 2 and 3 demonstrates that three principal findings of Model 1 are robust, although some of the significance levels change. The main results that persist throughout these robustness checks are, first, the number of private schools is significantly and negatively correlated with officer recruitment at the 0.01 level; second, male educational attainment is similarly negatively correlated with officer recruitment; and third, numeracy is positively and significantly correlated with recruitment.

### Nonlinear Effects of Education on Recruitment

One of the most interesting findings of the analysis above is that the average level of male education in a district is negatively correlated with officer

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<sup>77</sup> *Pakistan Country Gender Assessment October 2005. Bridging the Gender Gap: Opportunities and Challenges*, Environment and Social Development Sector Unit Report 32244-PAK, South Asia Region, World Bank, Washington, DC; Cynthia Lloyd, Cem Mete, and Monica Grant, "Rural girls in Pakistan: Constraints of Policy and Culture," in *Exclusion, Gender and Education: Case Studies from the Developing World*, ed., Maureen Lewis and Marlaine Lockheed (Washington, DC: Brookings Institution, 2007).



**FIGURE 4** Distribution of the average years of education by district in Pakistan, 1992–2002. *Source:* In-house data analysis. (Color figure available online).

recruitment from that district. This result is robust and persists across all models. (In my data, district-average male education ranges between 2.9 to 10.9 years.) Figure 4 presents the distribution of district-level average male attainment in my sample. It is similar to the distribution that appears in Pakistan’s census data, in which fewer than 12 percent of districts report average male attainment equal to or in excess of nine years. (According to the Pakistan Population Census Organization, about 13 percent of all persons have attained more than ten years of education).<sup>78</sup>

My specification in my regression models restricted the male education coefficient so that it had the same marginal effect for each additional year of education, regardless of the level of education. (That is, my specification forced the relationship between male education and recruitment outcomes to be linear.) Per the results from Model 1, depicted in Table 2, if the district’s average male education attainment level increases by one year, the expected number of officers recruited from that district decreases by 0.95. However, if there is an optimal average level of education for recruitment purposes (hovering at or slightly above twelve years of education), I should expect to see varying marginal effects of education upon recruitment outcomes, with the greatest positive effect on recruitment seen when education is at the optimal level, and with the effect decreasing as education moves when average educational attainment is below (or above) this optimum.

To measure different marginal effects at each level of education, I estimate the unrestricted response of district education levels to officer recruitment. To do so, a series of indicator variables were created with the value

<sup>78</sup> “Educated Population by Level of Education,” Population Census Organization, Pakistan.

**TABLE 3** Drivers of Pakistan Officer Recruitment with an Unrestricted Male Education Specification

Variables	Model 1 Recruits	Model 2 Recruits	Model 3 Recruits	Model 4 Recruits	Model 5 Recruits
Male Wages in 000s					0.0073 -0.0302
Private High Schools		-0.1633*** -0.0402		-0.1493*** -0.0407	-0.1564*** -0.0392
District Gini					-0.3524 -4.2040
Percentage Urban					-1.8089 -1.7626
Population Share, Males 20 to 29					-28.5886 -41.0309
Male Education:	2.4779	2.4594	1.5644	1.5528	4.2836**
Less than 5 years	-1.9941	-2.0629	-1.7095	-1.7906	-2.0806
Male Education: 5 to Less than 6 years	5.2388** -2.5200	5.4168** -2.5509	3.0048** -1.2557	3.1824** -1.3062	6.0404** -2.3846
Male Education: 6 to Less than 7 years	3.800* -1.9996	4.1308** -2.0462	2.0628** -1.0127	2.3807** -1.0902	4.9029** -2.1031
Male Education: 7 to Less than 8 years	3.6621* -1.8589	3.8526** -1.891	2.0293** -0.9836	2.2249** -1.0482	4.4431** -1.9906
Male Education: 8 to Less than 9 years	1.5491 -1.8463	1.6788 -1.8327	0.1996 -1.3582	0.3585 -1.3670	2.0734 -2.1567
Years of education (Female)					0.4500* -0.2604
Age at Marriage (Female)					-0.4354 -0.3744
Labor Force Participation					6.7714 -4.8486
Numeracy		2.3647 -1.5692		2.2720 -1.4642	3.2506* -1.7776
Year 1996	-6.365*** -1.4185	-6.6996*** -1.4556	-5.3549*** -1.0008	-5.6646*** -1.0272	-5.9049 -3.5793
Year 1999	-1.5926 -0.9725	-1.8985* -0.9831	-1.3804 -0.8989	-1.6642* -0.9045	-4.1613* -2.4398
Year 2002	-3.8045*** -1.4313	-4.3601*** -1.4991	-3.0135** -1.1903	-3.5477*** -1.2617	-7.3047** -3.2851
Constant	9.0841*** -1.5743	7.8237*** -1.7637	8.446*** -1.1967	7.2148*** -1.4071	15.1565** -7.5446
District FE	Yes	Yes	Yes	Yes	Yes
Observations	357	357	353	353	343
R-squared	0.1848	0.195	0.1996	0.2146	0.2203
Number of Districts	98	98	97	97	98

NOTE: OLS coefficients with errors clustered at the district level. The omitted year is 1992. Omitted male education variable is districts with more than 9 years of average male education. Standard errors in parentheses. \*\*\* $p \leq 0.01$ , \*\* $p \leq 0.05$ , \* $p \leq 0.1$

of one if the district falls in a given category described above and 0 if it does not. These dummy educational attainment variables are modeled on the dependent variable, officer recruits. Table 3 details the results of this analysis. The excluded variable in these regressions is the nine-and-over category, so

all the other dummy variables are compared to that category. While nine years is still below what is required to qualify for the officer corps, this figure is only a district average, and actual individuals may have more or less than nine years of education. Nine years of education also means that an individual falls into the highest category of educational attainment.

To examine the possible nonlinear relationship between average male education and officer recruitment outcomes in a district, my team tested specifications with and without the other variables related to education, numeracy, and number of private schools excluding outliers. Finally the specification of Model 1 from Table 2 is tested with the male education variable unrestricted. All specifications have both year and district fixed effects, with errors clustered at the district level.

Results for Models 1 and 2 in Table 3 suggest that there is an “optimal level of education,” with the highest recruitment coming from districts with average male education between five and six years. After controlling for the number of private high schools and for numeracy, those districts whose male inhabitants average between five and eight years of education produce a high number of officers. Consistently, those districts with average male educational attainment of more than eight years, or fewer than five, are not significant producers of officer recruits. In Models 3 and 4 this specification is estimated excluding outliers. The conclusions remain the same. In Model 5, which controls for all other independent variables, the initial conclusions—that the greatest numbers of recruits come from districts where average male education is between five and six years, and that districts become decreasingly productive as one moves away from this sweet spot—remain significant.

This analysis provides further support for my original assertion that the Pakistan Army is likely to recruit officers from districts with lower levels of education. This evidence suggests that the most productive districts are those with average educational levels between five and six years. Consistent with my expectation, inhabitants of districts with higher levels of male education, that is eight years or more on average, usually indicate a preference for opportunities outside the officer corps of the Pakistan Army. This is not surprising. Despite the army’s reputation for running the country, the vast majority of officers live modestly. Those who seek more lucrative careers are likely to invest in more education and seek employment in the private sector.

## IMPLICATIONS OF THESE SHIFTS

What can I say about the implications of the demonstrable changes in the Pakistan Army’s recruitment base, especially since I cannot say whether



recruits coming from Balochistan, for instance, are in fact Baloch? In this section, I take advantage of a natural experiment resulting from the migration of Punjabis to the other four provinces of Pakistan. Using recent survey data, I can examine how Punjabis compare to non-Punjabis living in the same province and to co-ethnics living in different provinces. In fact, my analysis demonstrates that even if the army were still overwhelmingly recruiting Punjabis, those within and outside the Punjab have significantly different views on a wide array of political, social, and religious questions. Furthermore, Punjabis living outside of the Punjab look very different from members of the other ethnic groups in their province of residence, and they also are quite dissimilar to Punjabis in the Punjab. My analysis of these survey data suggest that even if geographical changes to the army's recruitment base do not correspond easily to ethnic changes, expansion of the base is very likely to produce cohorts that enter the army with different world views than their predecessors. In other words, the Pakistan Army can achieve important changes by expanding the geographical base of the army, even if doing so is not isomorphic with changing the ethnic composition of the military.

### What the Data Say

First, using the FMS 2009 survey data, I compare Punjabis in the Punjab to those living elsewhere in the country. I focus upon Punjabis and the Punjab because, as noted above, they are the largest ethnic group in the army, and most of the army's infrastructure is located in the Punjab. I examine the differences in responses to several questions addressing governance, Islamism, and jihad. I use the Pearson Chi-squared test to discern whether the distribution of responses is statistically significant for the groups of people compared. (Not all response categories are presented in my tables. Relevant sample sizes are indicated in the tables.)

First, I focus upon the differences between Punjabis living within (2,015) or outside the Punjab (136). As the data in Table 4 indicate, Punjabis in and beyond the Punjab differ significantly in their responses to several questions. For example, those living outside of the Punjab are less likely than those in the Punjab to view jihad as a militarized struggle and more likely to see it as a struggle for righteousness. They are also somewhat less likely to say that Pakistan is "not at all governed" by Islamic principles, much less likely to want Sharia to play a larger role in governance, and are less confident that there would be "a lot less corruption" if the role of Sharia was increased. Punjabis outside of the Punjab are also less likely to share the belief that the government is controlled by elected representatives than are those living in the Punjab; but Punjabis outside of the Punjab are also less supportive of complete civilian control over the army. Finally, Punjabis beyond the Punjab are less likely to believe that Muslim Kashmiris in Indian Kashmir prefer

**TABLE 4** Punjabis in the Punjab versus Punjabis Elsewhere

Question	Punjabis in the Punjab N = 2015	Punjabis beyond the Punjab N = 136	X <sup>2</sup> test test p-value
Q50 (A) Jihad is a personal struggle for righteousness**	15%	47%	104.1***
Q50 (C) Jihad is a militarized struggle	28%	12%	104.1***
Q60 (D) The government is “not at all” governed by Islamic principles (Sharia)	26%	15%	51.7***
Q150 (A) Want Sharia to “play a much larger role than present” in the state	49%*	15%	138.0***
Q180 (D) There will be “a lot less” corruption in Pakistan under Sharia	47%	24%	41.6***
Q310 (A) Believe that their government is governed “completely” by elected representatives	41%	14%	68.7***
Q370 (A) Civilians should have “complete control” over the military	41%	24%	118.9***
Q400 (C) Kashmiris living under India’s rule would prefer to join Pakistan	58%	42%	33.6***

NOTE: \*\*\* indicates Pearson Chi-Square is significant at the 0.001 level; \*\* at the 0.05 level; \* at the 0.1 level. All percentages are weighted.

to join Pakistan. These data suggest that ethnicity is not the single most important predictor of views on a range of issues confronting the state.

In Table 5, I compare two groups of residents of the Punjab: those who are ethnically Punjabi (2,015) and those who are not (493). (Note that I coded

**TABLE 5** Punjabis versus Non-Punjabis in Punjab

Question	Punjabis in the Punjab N = 2015	Non-Punjabis in the Punjab N = 493	X <sup>2</sup> test p-value
Q50 (A) Jihad is a personal struggle for righteousness**	15%	19%	10.6*
Q50 (C) Jihad is a militarized struggle	28%	23%	10.6*
Q60 (D) The government is “not at all” governed by Islamic principles (Sharia)	26%	24%	39.4***
Q150(A) Want Sharia to “play a much larger role than present” in the state	49%	50%	10.6*
Q180 (D) There will be “a lot less” corruption in Pakistan under Sharia	47%	50%	20.8**
Q310 (A) Believe that their government is governed “completely” by elected representatives	41%	26%	55.6***
Q370 (A) Civilians should have “complete control” over the military	41%	40%	19.3**
Q400 (C) Kashmiris living under India’s rule would prefer to join Pakistan	58%	57%	4.4

NOTE: \*\*\* indicates Pearson Chi-Square is significant at the 0.001 level; \*\* at the 0.05 level; \* at the 0.1 level. All percentages are weighted.

those who speak Punjabi as their mother tongue as being ethnically Punjabi. Those who speak any other language as their mother tongue were coded as non-Punjabi.) While the data in Table 4 demonstrates that ethnicity is not the best predictor of a person's views on these issues, Table 5 explores whether ethnicity matters at all (at least as far as the Punjab is concerned). While the differences in the distribution of answers given by Punjabis and non-Punjabis are often statistically significant; the magnitude of these differences is not large for most items. One result stands out: at the 1 percent significance level, Punjabis in the Punjab are much more likely than non-Punjabis to believe that their government is governed by elected representatives and that the government is not at all governed by Islamic principles.

In Appendix B, I present analysis of Punjabis versus Sindhis in Sindh (Table 6); Punjabis versus Baloch in Balochistan (Table 8); as well as Punjabis versus Pashtuns in KP (Table 8). As the data in Tables 6 and 7 show, Punjabis respond very differently from either Sindhis (in Sindh), or Baloch (in Balochistan), yet the Punjabis of Balochistan and Sindh also differ from Punjabis in the Punjab. (Note that there are no statistically significant differences in the distribution for KP and that the sample size of Punjabis there is very small.)

Taken together, my analysis of the FMS 2009 data strongly indicate that ethnicity does not perfectly predict a person's views. Moreover, these findings suggest strongly—albeit not conclusively—that place of residence might play a larger role than ethnicity in determining personal attitudes toward politics, governance, Islamism, and jihad in Pakistan. These data do present conclusive evidence that place of residence affects how a person views politics and governance. This analysis provides substantial evidence that the change in the geographical origins of Pakistan Army officers is likely to result in a corps whose views on governance, politics, and religious issues are different from those of previous cohorts, irrespective of the ethnicity of recruits. In other words, the Pakistan Army's manpower policies do appear to have transformational effects over time, even though they are driven from the top and even though there is little appetite among the target groups for military service.

## DISCUSSION AND IMPLICATIONS

This paper demonstrates that even the Pakistan Army behaves in ways that are reminiscent of other armies that are drawn from multiethnic, multi-religious countries, despite its other well-known problems including military domination of civilian governance. The Pakistan Army views its manpower policies as tools of social policy as well as institutional transformation. Accordingly it has effectively manipulated its recruitment policies to achieve modest—but important—changes in the recruitment base of the force with

potential impacts beyond the army. It is striking that the Pakistan Army has prioritized these changes to the recruitment base of its officer corps, given the ongoing conflict in Afghanistan, its interminable rivalry with India, and numerous internal security operations. Indeed, my analysis shows that the Pakistan Army has made important progress in expanding the geographical, and likely ethnic, recruitment base for its officer corps, despite a near incessant state of internal and external military crisis. These steps may over time help mitigate the common descriptions of the force as “Punjabi-dominated,” a “colonizing military,” or oppressive of disfavored groups.

I also identified several district-level attributes that explain, in some measure, these district-level changes in recruitment. First, as predicted, districts in which there is substantial investment in education and higher levels of male education are less likely to produce officers. This suggests that as the Pakistan Army extends its recruiting drive into previously untapped districts, the army is not getting the elite applicants that it may have received in the past. Pakistan’s best-educated men appear to be pursuing other careers. As modern warfare continues to evolve and as Pakistan seeks to introduce ever-more complex weapons systems, its shrinking pool of human capital may render the army less able to integrate these new systems—if it does not preclude their introduction in the first place. Given the widening gap between the conventional military capabilities of Pakistan and its principal adversary, India, this may be cause for alarm among those responsible for Pakistan’s defense. This analysis, however, cannot offer any conclusions as to whether the decreased educational attainment of the new cohorts is due to the army’s deliberate expansion into new districts, changes in Pakistan’s economy that make military service less rewarding, or a combination of both.

These geographical shifts may have other impacts in addition to diminished access to the best and brightest. Using the FMS 2009 survey data, I find important evidence that this geographical expansion may be tapping into populations with views on domestic policies, Islamist militancy, the role of Sharia in the state, and civil-military relations that differ starkly from those of past officer cohorts, which were drawn heavily from the Punjab and KP. Most importantly, my analysis of the FMS 2009 data demonstrates that ethnicity does not predict attitudes: residents of the Punjab, regardless of ethnicity, are more likely to agree on key issues than are Punjabis from across Pakistan. In most cases, while those outside of the Punjab are far less likely to back Islamist militancy, they are also far less supportive of civilian control over the military. This does not necessarily suggest that the military will be more prone to coups, but it does suggest that it will be very difficult for Pakistan to resolve nagging questions about what kind of state it will be: a democratic state where civilians control the military or a struggling democracy under the thumb of an always-watchful army.

Taken together, this analysis suggests that even an army like that of Pakistan, in spite of enormous challenges, can change its manpower policies

to transformative effect. Whereas much of the extant scholarly literature examines how marginalized citizens use their personal and collective agency to instrumentalize military service to attain greater access to rights, this study of the Pakistan Army provides an important case of a demand-constrained army that employs military service to recruit reluctant citizens into the national project and to do so non-coercively. In doing so, this essay hopes to contribute to a broader understanding of defense politics and how both citizens and military institutions alike employ military service not only to fight for rights withheld to some but also to expand the responsibilities of citizenship abjured by others.

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### APPENDIX A: PAKISTAN ARMY RECRUITMENT<sup>79</sup>

Both officers and enlisted personnel join the Pakistan Army with the expectation that their period of service will occupy much of their productive lives. This expectation marks a point of difference between recruitment into the US army, since American officers and enlisted personnel alike have relatively short initial service obligations (two to six years for enlisted personnel and five years in active service and an additional three years in the reserves for officers commissioned from a service academy), and few officers or other ranks will make a career of service.<sup>80</sup> Recruits join the US armed forces for

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<sup>79</sup> For a more detailed account of army officer recruitment, see C. Christine Fair and Shuja Nawaz, "The Changing Pakistan Army Officer Corps," *Journal of Strategic Studies* 34, no. 1 (February 2011).

<sup>80</sup> For a breakdown of retention rates by seniority, see Beth J. Asch et al., *Cash Incentives and Military Enlistment, Attrition, and Reenlistment* (Santa Monica, CA: RAND, 2010).

many reasons: some in order to have access to better education via active duty educational opportunities or post-service educational benefits, such as those provided under the Montgomery G.I. Bill (which helps soldiers who honorably complete their terms of service pay for higher education). Still others join the army in part to receive loan repayment assistance for education already completed. For many, service in the US army will comprise an important phase in the person's career but will not be his or her only vocation.<sup>81</sup>

The Pakistan Army differs substantially from the US army in this sense. While the US army has at times struggled to retain high-quality enlisted personnel, and even officers, when their contracts are complete; the Pakistan Army recruits with the expectation that its members will serve for their entire career. Officers, who are subject to an "up or out rule," typically retire between the ages of 52 and 60, depending upon the maximum rank they reach before they are passed up for promotion and thus retire.

The principal training institution for Pakistani army officers is the Pakistan Military Academy (PMA) at Kakul. Each year, the PMA commences two long courses, with one cohort inducted in the spring and another in the fall. After graduating from the two-year program, cadets are commissioned with the rank of second lieutenant.<sup>82</sup> The selection process is extremely competitive, with far more applicants than billets: each year there are roughly 3,000 applicants for about 320 places in each long course.<sup>83</sup> Candidates must satisfy a number of eligibility criteria: they must be single, hold at least an intermediate degree (that is, twelve years of schooling), and be between seventeen and twenty-two years of age. Recruits must obtain a score of at least 50 percent in their matriculation (tenth grade) or FA (twelfth grade) exams.<sup>84</sup>

Applicants undergo initial testing and screening at eight regional selection and recruitment centers across the country: Rawalpindi, Lahore, and Multan (in the province of the Punjab); Hyderabad and Karachi (in the province of Sindh); Quetta (in the province of Baluchistan); Peshawar (in the province of Khyber Pakhtunkhwa (KP), formerly North-West Frontier Province (NWFP)); and Gilgit (in the administrative area of Gilgit Baltistan, previously known as the Northern Areas).<sup>85</sup> Selected candidates then proceed to the Inter-Services/General Headquarters Selection and Review Board in

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<sup>81</sup> Asch et al., *Cash Incentives and Military Enlistment*; Beth J. Asch, Can Du, and Matthias Schonlau, *Policy Options for Military Recruiting in the College Market: Results from a National Survey* (Santa Monica, CA: RAND, 2004); Beth J. Asch, M. Rebecca Kilburn, and Jacob Alex Klerman, *Attracting College-Bound Youth into the Military: Toward the Development of New Recruiting Policy Options* (Santa Monica, CA: RAND, 1999).

<sup>82</sup> Fair and Nawaz, "The Changing Pakistan Army Officer Corps."

<sup>83</sup> Ibid.

<sup>84</sup> "Induction: PMA Long Course," Official Pakistan Army Recruitment Website, <https://www.joinpakarmy.gov.pk/>.

<sup>85</sup> "Contact Us," Official Pakistan Army Recruitment Website, <https://www.joinpakarmy.gov.pk/>.

Kohat or to satellite centers in Gujranwala (Punjab), Malir (Sindh), or Quetta (Balochistan) for further screening. Successful candidates are then recommended for the PMA. Each year, the Army General Headquarters determines the precise number of slots for PMA cadets based upon regimental reports of shortfalls. Officer selection is generally based on merit, with the exception of episodic efforts to increase recruitment from underrepresented provinces such as Sindh and Balochistan.<sup>86</sup>

## APPENDIX B: PUNJABIS IN AND BEYOND THE PUNJAB

**TABLE 6** Punjabis versus Sindhis in Sindh

Question	Punjabis in the Sindh N = 94	Sindhis in Sindh N = 737	X <sup>2</sup> test p-value
Q50 (A) Jihad is a personal struggle for righteousness**	54%	41%	14.3**
Q50 (C) Jihad is a militarized struggle	5%	18%	14.3**
Q60 (D) The government is “not at all” governed by Islamic principles (Sharia)	13%	14%	22.5***
Q150 (A) Want Sharia to “play a much larger role than present” in the state	12%	20%	37.2***
Q180 (D) There will be “a lot less” corruption in Pakistan under Sharia	22%	23%	11.7*
Q310 (A) Believe that their government is governed “completely” by elected representatives	10%	21%	30.8***
Q370 (A) Civilians should have “complete control” over the military	15%	96%	184.4***
Q400 (C) Kashmiris living under India’s rule would prefer to join Pakistan	45%	36%	6.8

NOTE: \*\*\* indicates Pearson Chi-Square is significant at the 0.001 level; \*\* at the 0.05 level; \* at the 0.1 level. All percentages are weighted.

<sup>86</sup> Fair and Nawaz, “The Changing Pakistan Army Officer Corps.”

**TABLE 7** Punjabis versus Baloch in Balochistan

Question	Punjabis N = 30	Baloch N = 225	X <sup>2</sup> test p-value
Q50 (A) Jihad is a personal struggle for righteousness**	37%	54%	11.1**
Q50 (C) Jihad is a militarized struggle	20%	9%	11.1**
Q60 (D) The government is “not at all” governed by Islamic principles (Sharia)	20%	11%	22.1***
Q150(A) Want Sharia to “play a much larger role than present” in the state	27%	17%	5.1*
Q180 (D) There will be “a lot less” corruption in Pakistan under Sharia	17%	17%	4.3
Q310 (A) Believe that their government is governed “completely” by elected representatives	20%	8%	15.8**
Q370 (A) Civilians should have “complete control” over the military	47%	34%	5.9
Q400 (C) Kashmiris living under India’s rule would prefer to join Pakistan	37%	32%	9.3**

NOTE: \*\*\* indicates Pearson Chi-Square is significant at the 0.001 level; \*\* at the 0.05 level; \* at the 0.1 level. All percentages are weighted.

**TABLE 8** Punjabis Versus Pashtuns in KP

Question	Punjabis N = 12	Pashtun N = 676	X <sup>2</sup> test p-value
Q50 (A) Jihad is a personal struggle for righteousness**	17%	17%	0.4
Q50 (C) Jihad is a militarized struggle	42%	34%	0.4
Q60 (D) The government is “not at all” governed by Islamic principles (Sharia)	17%	8%	2.8
Q150(A) Want Sharia to “play a much larger role than present” in the state	17%	33%	3.5
Q180 (D) There will be “a lot less” corruption in Pakistan under Sharia	50%	30%	2.8
Q310 (A) Believe that their government is governed “completely” by elected representatives	33%	25%	1.3
Q370 (A) Civilians should have “complete control” over the military	33%	44%	5.0
Q400 (C) Kashmiris living under India’s rule would prefer to join Pakistan	25%	36%	1.3

NOTE: \*\*\* indicates Pearson Chi-Square is significant at the 0.001 level; \*\* at the 0.05 level; \* at the 0.1 level. All percentages are weighted.