Research Report

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Suppose They Held a War and Nobody Came

Systemic Approaches to Shared Military Personnel Challenges

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About This Report

The research presented in this report began with the observation that although many allies and key partners of the United States are now taking up more of the burden in collective defense, there is little public discussion on how their significant problems in manning their military forces would affect the execution of collective defense plans and crisis responses. There is also a lack of deliberate, cross-border information-sharing around potential solutions, particularly multinational responses to the problem. We view this project as a first step to stimulate such discussions and to put this vital question on the agenda for defense policymakers.

The research reported here was completed in May 2025 and underwent security review with the Defense Office of Prepublication and Security Review before public release.

RAND National Security Research Division

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Summary

Allies and partners of the United States in Europe and East Asia are having widespread, significant, systemic, and strategically relevant problems in developing military personnel. None of these countries are immune from the personnel challenges caused by demographic decline, social factors, and economic conditions, at a time when some are seeking to expand their forces. Not all U.S. allies and partners have given enough attention to the similar problems that they face. Their shortages in personnel have direct, indirect, and strategic effects for collective defense in Europe and potential combined defense operations in East Asia, ultimately affecting U.S. interests abroad; these effects deserve further study.

In this report, we propose that critical gaps in partner troop levels may not be inevitable but could be mitigated by moving away from an outdated personnel paradigm detached from modern societies. Variations in personnel patterns are more frequent than popularly believed; they often change over periods shaped by different strategic environments. As we have entered an era of multipolar, great-power competition combined with emerging and disruptive threats, the new strategic landscape calls for a fresh approach to military staffing that differs from that of the post–Cold War era.

In this report, we find the following challenges for foreign militaries:

- There is growing demand for personnel in Europe because of national and multinational plans to expand forces.
- There is a decreasing supply of personnel. This trend is systemic in East Asia and Europe and risks making existing force objectives in Europe unsustainable.
- Government responses tend to be similar, systematic across regions, and unsuccessful in shifting personnel trends.

These challenges can lead directly to a hollower and less capable force. Lower capacity can lead to lower readiness, lower flexibility, and a more expensive force that cannot take more of the burden in collective defense and potential combined defense operations. Overall, such impacts can ultimately lead to decreased deterrence, less effective responses to threats, and further tensions within U.S. alliances.

If these problems cannot be solved by simply recruiting more of the same kinds of people for the same kinds of services, the logical solution is for these countries to consider recruiting from different parts of their populations to serve in new ways or under new terms. By assessing the existing military personnel paradigm, we propose several solutions to refit patterns of military recruitment broadly across country lines. Although some foreign governments have experimented with some of these solutions already, these options present opportunities for a dramatic departure from the way we perceive military recruitment abroad and a career in the armed forces.

We explored the following possibilities:

- strategic conscription focused on converting conscripts into careerists

- a fuller continuum of service to improve retention
- eliminating the officer corps as a distinct status and increasing career options
- adapting fitness standards to national conditions
- modifying the time, place, or conditions of service
- recruiting foreigners with a path to citizenship
- privatizing mission components, including the lifting of some military constraints
- deviating from standard pay scales and offering more–market-based compensation

All these changes would represent a dramatic departure from existing models of military recruitment and personnel management. Not all of them would be appropriate for every country experiencing the problem. To help partners and allies evaluate these options and reach their personnel goals, we recommend that the United States—specifically, the Office of the Secretary of War—identify an office or a command to (1) synchronize governmental efforts to assist partners and allies in military human resource management and (2) track dialogue with international partners to create a forum of discussion around military personnel issues.[1]

[1] On September 5, 2025, the President signed Executive Order 14347 to authorize the use of the name Department of War as a secondary title for the Department of Defense. This publication uses the new name, but cites documents published before that date using terms applicable at the time of publication.

Contents

Figures and Tables

Figures

Tables

Chapter 1

Broad Indicators of Systemic Personnel Problems

In this report, we present exploratory research by documenting an emerging problem and describing a set of potential solutions that should be evaluated; recommendations are limited to near-term steps in the search for the most-promising policy responses. This report is divided into several parts and uses only unclassified and open sources. Our qualitative research included published reports, public statements by officials, commentaries by specialists, and expert opinion pieces. Our quantitative research included demographic statistics from internationally recognized organizations and economic analyses made by observers. These include the International Institute for Strategic Studies' Military Balance, the World Bank's Statistics reports, and the European Union's statistics bureau. In this chapter and in Chapter 2, we cover this body of research and confirm some findings through interviews with experts and observers in academia. In Chapters 3 and 4, we further explore these findings and draw analytical conclusions. In Chapter 5, we present a short series of recommendations and possible areas for further research.

We begin by presenting the challenges that U.S. allies and partners face and the indicators that suggest that these challenges are systemic. Because of the different historical, political, and economic conditions leading up to these challenges, we distinguish between situations in Europe and East Asia.

The Military Personnel Crisis in Europe

The recent deteriorating security environment has motivated many partner nations in Europe to enhance their armed forces. Although some Eastern European countries began increasing their defense capabilities after the 2014 Russian annexation of Crimea, many more followed after the Russian invasion of Ukraine in 2022.[2] Increasing threats have also motivated the North Atlantic Treaty Organization (NATO) to set up the new Force Model, which—according to NATO's Madrid Summit—plans to deliver an allied response to a contingency at a much greater personnel scale.

All in all, most European allies are expanding their total military personnel in their armed services, although they face challenges in matching their stated goals, both in the present and in the future. In this section, we focus on assessing European partner nations' shared challenges.

[2] For example, Lithuania reintroduced conscription in 2014, citing the situation in Ukraine; Lithuania was soon followed by Sweden in 2017. As mentioned later in this report, many European countries have also expanded their forces since 2022 or plan to grow their forces in response to the Russia-Ukraine war.

Planned Expansion of Troop Numbers

Most European countries plan to expand their number of military personnel by 2030, either by recruiting more soldiers or retaining those already enlisted for longer periods. NATO's New Force Model would replace the 40,000-strong NATO Response Force with three categories of readiness: (1) more than 100,000 troops ready to be deployed in 10 days; (2) around 200,000 troops ready within 20 days; and (3) at least 500,000 troops ready within 180 days.[3] Although contributions to these targets are often classified, some analysts suggest that NATO has made progress toward reaching the first two tiers; however, an overwhelming quantity of NATO's total force pool in personnel consists of 100,000 U.S. service members with fewer contributions from European forces.[4]

Most partner nations in Europe are attempting to recruit new active military service members to fill existing personnel shortages, expand their military personnel numbers, or both. For some, filling gaps in personnel goals has been a prevalent objective since the shift to a volunteer armed force, while expanding existing ranks has been a response to recent collective defense requirements and the deteriorating strategic environment. Some countries, such as Sweden, temporarily introduced a voluntary system but reestablished conscription after many applicants did not fulfill their recruitment requirements.[5] As shown in Figure 1.1, many European countries have announced an expansion of their existing forces. Other countries absent from the figure have also publicly committed to recruiting more military personnel without stating a specific target number.[6] Importantly, however, many countries shown in Figure 1.1 spend very differently in personnel—as a result, increases in personnel could pose a financial burden.[7]

Although many European countries had already begun recruiting more personnel in recent years, the outbreak of the 2022 Russia-Ukraine war served as a catalyst for government officials and the armed forces to further recognize that an important shift on military personnel was needed. For instance, Germany has been struggling with recruiting volunteers since the end of its conscription in 2011, but in 2024, Minister of Defense Boris Pistorius lamented that the shift to a volunteer force was a mistake.[8] The Chief of Staff of Italy's Armed Forces also announced that the intentional shrinkage of personnel during the 2010s was unwise in hindsight and that increases in personnel are a matter of "survival" for its armed forces in light of its existing missions.[9] The deteriorating strategic environment has also led France to reinvest considerably in its armed forces and to "transform" and "rebuild" those forces because its government publicly recognized a "changed era."[10] All three countries have stated that they intend to dramatically increase their military personnel numbers.

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[3] NATO, "New NATO Force Model," infographic, June 2022.

[4] Sean Monaghan, Eskil Jakobsen, Sissy Martinez, Mathieu Droin, Greg Sanders, Nicholas Velazquez, Cynthia Cook, Anna Dowd, and Maeve Sockwell, *Is NATO Ready for War?* Center for Strategic and International Studies, June 2024.

[5] U.S. Department of Defense, "U.S. Defense Contributions to Europe," fact sheet, June 29, 2022; expert on Scandinavian military personnel issues, interview with the authors, November 12, 2024.

[6] Lyubomir Gigov, "Armed Forces Seek to Recruit 500-Plus Professional Soldiers," Bulgarian News Agency, January 2, 2023.

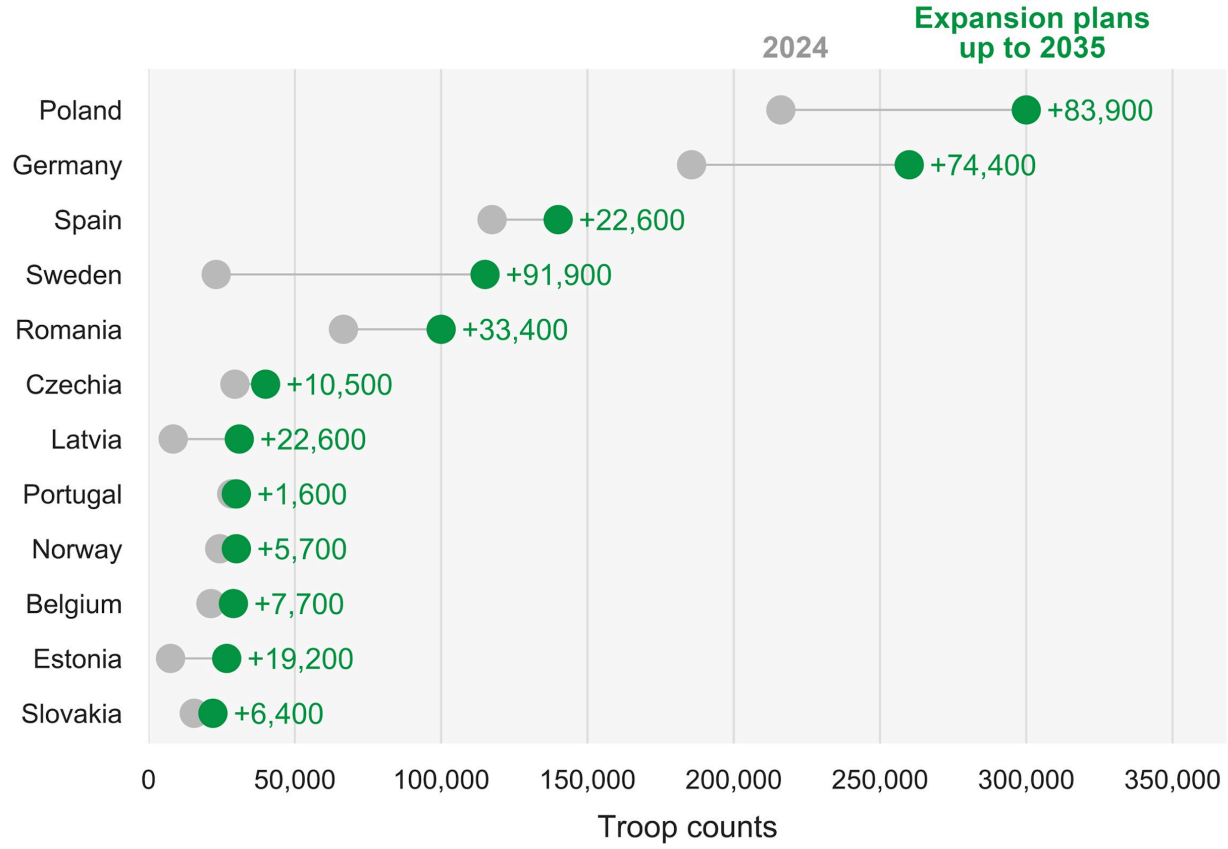
[7] According to "Defence Expenditure of NATO countries (2014–2024)" expenditures in personnel vary considerably.

[8] Personnel issues have been a recurring issue in Germany and were a source of domestic debate throughout the 2010s. See Brady, 2024.

[9] Tom Kington, "Italian Leaders Scramble to Reverse Military Headcount Shrinkage," DefenseNews, April 5, 2024.

[10] Hervé Gardette, "L'armée Française a-t-elle encore les moyens de faire la guerre ?" *L'Esprit public* podcast, January 29, 2023.

Figure 1.1. European Countries' Stated Increases in Military Personnel



SOURCES: Features data from Krystyna Marcinek and Scott Boston, *Polish Armed Forces Modernization: A New Cornerstone of European Security?* RAND Corporation, RR-A2971-1, 2025; Sabine Siebold, "Germany to Boost Military by Up to 60,000 Troops Under New NATO Targets," Reuters, June 5, 2025; Vafa Guliyeva, "Spain to Increase Army Personnel for First Time in over a Decade," Caliber, December 17, 2024; "Sweden's Armed Forces to Grow to 115,000 by 2030, Government Says," Reuters, October 15, 2024; Carl Deconinck, "Dutch Plan to More Than Double Armed Forces," Brussels Signal, March 25, 2025; Thadhg Pidgeon, "Romania Set to Join Europe's Military Conscription Trend," Brussels Signal, January 9, 2024; Magdalena Dvořáková, "Numerous Innovations for the Czech Armed Forces in 2022," Ministry of Defence and Armed Forces of the Czech Republic, January 4, 2022; Ministry of Defence (Latvia), "Ministry of Defence Begins to Work on Gradual Introduction of State Defence Service," May 7, 2022; Natasha Donn, "Portugal's Armed Forces See Upsurge in Recruits," Portugal Resident, October 29, 2024; Astri Edvardsen and Hilde-Gunn Bye, "Norway's Response to the Gravity: Four Main Measures to Strengthen the Armed Forces," *High North News*, April 8, 2024; Martin Banks, "Interview: Belgian Defence Minister Pledges to Rebuild Country's Armed Forces," *Brussels Times Magazine*, December 22, 2022; Ministry of Defence (Estonia), "National Defence Development Plan 2031," webpage, last updated December 14, 2021; Ministry of Defence of the Slovak Republic, "MOD to Draw In Prospective Recruits for Slovak Armed Forces Through Its Recruitment Campaign: 'A Lot of Professions, One Mission,'" May 22, 2023.
NOTE: Countries with mandatory military service include a mix of conscripts.

Countries in Europe have made similar pledges to increase their ranks. Poland has the most ambitious plan, with the goal of establishing the largest land army in Europe.[11] It expects to field a

[11] Giulia Carbonaro, "Poland Said Its Army Will Soon Be the Strongest in Europe. But Is That Possible?" Euronews, September 6, 2023.

250,000-strong armed force by the next decade, or almost double the number of personnel it has as of 2025. Similar to Italy's redirection in personnel recruitment, other countries scrapped plans to decrease their personnel forces. In 2021, the United Kingdom (UK) had canceled plans to reduce its army, but plans to expand the British Army by 3,000 and more have been deferred for now.[12] Belgium also initially planned to decrease its military personnel, according to a June 2021 defense white paper, but revised its plans in 2023. Brussels now aims to expand its personnel numbers from 25,000 to 29,000.[13] And similar to Belgium, many countries also seek to considerably expand their reserve numbers as a policy priority.[14]

Recruitment Problems

Although they plan to expand total end strength, many European partner nations are already experiencing difficulties to varying degrees in filling their existing ranks. Not only have net gains in recruits not kept up with structural increases in armed forces, but the end strength has even lost ground in some cases. Although this has been a continual problem for some militaries, such as Germany's, this is a new problem for other militaries, such as France's. Some countries, such as the UK and Italy, do not publish short-term goals in military personnel, which makes assessment of shortfalls more difficult.

Although it has a stated plan to recruit 16,000 soldiers per year, the French Army missed its recruiting target in 2023 by more than 2,000.[15] The French Air Force has also been struggling with a record deficit of 200 candidates in 2023.[16] Only the French Navy reached its total goal in 2023. The UK, on the other hand, recorded a sudden drop in 2023 of about 10,000 soldiers in its total end strength.[17] Recent testimonies suggest that the actual recruitment of soldiers fell short of the Army's targets at 95 percent between 2018 and 2022; in 2023, army recruitment only reached 68 percent and only reached 50 percent in the first three-quarters of 2024.[18] Although the UK has had difficulties in recruiting since it shifted to a volunteer service in 1963,[19] the shortages appear worse in recent years.[20] The Netherlands also face recent problems. The Dutch Armed Forces had to turn down a record

[12] "Britain's Armed Forces Are Stretched Perilously Thin," *The Economist*, January 29, 2024; Dan Sabbagh, "British Army Will Not Be Increased in Size This Parliament, John Healey Says," *The Guardian*, June 1, 2025.

[13] "Belgium to Add 10 Billion Euros to Military Spending Budget," *Brussels Times*, July 15, 2022.

[14] Max Helleff, "La Belgique va porter ses effectifs militaires à 40.000 soldats," Virgule, April 2, 2025.

[15] Nicolas Barotte, "L'armée de terre confrontée à une première crise de recruiement," *Le Figaro*, October 5, 2023.

[16] Elise Vincent, "L'armée de l'air face au risque du manque d'effectifs," *Le Monde*, February 7, 2024.

[17] Ministry of Defence (United Kingdom), "Quarterly Service Personnel Statistics 1 April 2024," webpage, updated November 21, 2024.

[18] Defence Committee, "Oral Evidence: Army Recruiting Contract, HC 480," House of Commons, January 16, 2024a.

[19] Christopher Dandeker, "Recruiting the All-Volunteer Force," in Stuart A. Cohen, ed., *The New Citizen Armies: Israel's Armed Forces in Comparative Perspective*, Routledge, 2010.

[20] Defence Committee, *Ready for War?* House of Commons, February 4, 2024b.

number of applicants in 2009 as a result of the financial crisis but have since fallen short of its 7,000-accession target in recent years—a negative trend noted by its Ministry of Defence.[21]

Others have struggled further since the end of conscription. The Defense Ministry of Germany narrowly missed its 2020 target by 2,000 volunteers, and—despite small increases from 2020 to 2022 during the coronavirus disease 2019 (COVID-19) pandemic—it recorded a 7-percent decrease in the number of expressions of interests in 2023 compared with the year before.[22] As a result, some sources indicate that the German Armed Forces are operating at 82-percent capacity.[23] Additionally, given existing recruitment difficulties, the parliamentary commissioner for the armed forces, Eva Högl, has stated that the ministry's stated target of 203,000 soldiers by 2031 is "unattainable."[24]

Poland, on the other hand, has experienced a positive trend in military recruitment since its abolition of compulsory military service in 2008, according to its defense minister.[25] Although the record number of applicants are a result of the Russian invasion of Ukraine, recruitment has become a government priority, and numbers have doubled since 2015. Other countries in Eastern Europe, such as Czechia, are experiencing high levels of recruitment in recent years but are facing some challenges in sustaining these trends.[26] The Polish military has expressed interest in reestablishing a compulsory form of military service, citing similar concerns.[27]

Conscription has not been a panacea for these problems. In Latvia, which recently reinstated conscription, recruiting shortfalls—numbering 800 individuals in 2022—were so pronounced that the Latvian government cited them as a reason for reinstating conscription.[28] However, it has since continued to face issues recruiting volunteer soldiers, with conscripts outnumbering contract soldiers recruited to the force in 2023 by a factor of nearly two to one.[29] Since 2022, defense officials in Denmark and Switzerland have expressed concerns about their countries' inabilities to meet recruitment targets.[30]

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[21] "Popular Dutch Military Can't Afford New Recruits," *Los Angeles Times*, August 3, 2010; Ministry of Defense (Netherlands), "State of Defence: Progress in Building a Future-Proof Armed Forces," 2023.

[22] William Noah Glucroft, "Germany Debates How to Boost Bundeswehr Recruitment," Deutsche Welle, February 24, 2024.

[23] Peter Caddle, "Recruitment Slumps Among EU Armed Forces Despite Government Campaigns," Brussels Signal, August 2, 2023.

[24] "German Military Needs 'Substantial Improvements,' Official Says," Reuters, March 12, 2024.

[25] Daniel Tilles, "Polish Armed Forces Recorded Highest Recruitment in 2022 Since End of Compulsory Military Service," Notes From Poland, January 20, 2023.

[26] Tomáš Kolařík, "Recruitment Goals 2030 and the Competitiveness of the Czech Armed Forces on the Labour Market - Human Resources Must Become a Real Priority," CZDefense, February 23, 2024.

[27] Krzysztof Mularczyk, "Poland's Military Chief of Staff Calls for Mandatory Conscription," Brussels Signal, October 7, 2024.

[28] Rīta Panorāma, "Latvian Army Recruitment Rates Fell Sharply This Year," Public Broadcasting of Latvia, July 7, 2022.

[29] Māris Andžāns, "The First Year of Conscription in Latvia," Foreign Policy Research Institute, May 20, 2024.

[30] Ben Hamilton, "Increasing Numbers Unfit to Serve in Army Due to Psychological and Weight Issues, Say Recruiters," *Copenhagen Post*, May 10, 2023; "Federal Council Wants to Get Tough on Conscription Choices to Boost Military," *Le News*, May 10, 2024.

Retention Problems

Retirements or early departures from the armed forces have also been affecting total end strength. When combined with recruiting challenges, these become important obstacles to total end strength generation. These obstacles can take several forms. In some cases, retention troubles specifically concern departures from the training phase of recruitment, commonly referred to as an *early* or *initial attrition period*. Low retention also includes those who leave active service before a recognized retirement (*separation*) at higher rates than planned. The impact of retirement depends on the retirement age in the military, which varies across national lines in Europe. Higher optional or mandatory retirement ages have positive immediate effects on military end strength but might have countervailing indirect effects, such as creating longer waits for and/or lower rates of promotion. These outcomes could encourage individuals to separate earlier than the service would intend.

In Belgium, reports suggest that 44 percent of recruits leave before completing their training.[31] Poor retention rates have also affected France's recruitment in recent years: The rate of separations without pensions has nearly doubled since the institution of a voluntary model in 2000 and constitutes a persistent challenge.[32]

Several conscript systems are also burdened by an inability to retain volunteer soldiers. Greece, for example, has suffered significant attrition rates of volunteer personnel, hindering its ability to maintain the specialized institutional knowledge that senior service members cultivate. Research from as far back as 1970 suggests that low reenlistment rates are a systemic issue in many conscript systems, with a significant number of volunteer recruits in Austria, Denmark, and the former West Germany serving for four years or fewer.[33] Low retention compounds low recruitment rates, leaving militaries with an ever-shrinking personnel pool. Although research into this trend is not conclusive, some data indicate that volunteer service members in conscript systems are leaving the military at a higher rate than that of previous decades.[34]

The Military Personnel Crisis in East Asia

Among countries in East Asia, the shortages in military personnel are particularly acute for U.S. allies and partners in the region. Japan, South Korea, and Taiwan have reduced recruitment goals, aiming to maintain smaller but more-competent forces through the introduction of better training and labor-saving technology.[35] Even then, they are struggling to meet their recruitment goals for military

[31] "La moitié des nouvelles recrues de l'armée abandonnent rapidement: comment expliquer ce phénomène?" RTL Info, September 20, 2023.

[32] This category of separations is often termed *infidelity*, which hints at the role of social expectations in shaping personnel processes.

[33] Erwin Häckel, "Problems of Personnel Recruitment," in *Military Manpower and Political Purpose*, Institute for Strategic Studies, December 1970.

[34] Research and Technology Organisation, *Recruiting and Retention of Military Personnel*, North Atlantic Treaty Organization, October 2007.

[35] While the SDF are one of the most advanced armed forces in the world, Japan does not consider the Self-Defense Forces (SDF) its military because the Japanese Constitution prohibits Japan from waging war and obtaining "war potential." The SDF was established in 1954 for the exclusive purpose of defense of Japan.

personnel.[36] There are some differences in their experiences, however. Japan's personnel shortages are more pronounced in the enlisted ranks, South Korea struggles to attract volunteer military personnel, and Taiwan's problems affect frontline units the hardest.

Planned Recruitment and Problems with Recruitment and Retention

In Japan, the authorized strength of uniformed personnel of the SDF was 247,154 as of March 2023.[37] The actual number of personnel, however, was 223,511, or 90.4 percent of the authorized number. The number of actual SDF personnel was down from 227,843 a year earlier, the lowest since the authorized number was set at 247,154 in fiscal year (FY) 2015.[38]

Japan's recruitment problems are particularly acute among the enlisted applicants. In FY 2023, the Ground Self-Defense Force (GSDF)—the largest of the three forces—had 10,975 applicants for 4,200 noncommissioned officer (NCO) spots but only 2,532 were accessed, meaning only 60 percent of the plan was achieved. The same year was only slightly better for the Maritime Self-Defense Force (MSDF), which had a fulfillment rate of 64 percent for 1,630 spots. The Air Self-Defense Force (ASDF), meanwhile, had a 100-percent fulfillment rate, hiring 1,395 out of 4,922 applicants.[39] The plan for uniformed SDF candidates—entry-level personnel—fared even worse, with those for GSDF reaching only 27 percent of the 7,030 planned, 32 percent for the MSDF, and 40 percent for the ASDF.[40]

In contrast, the plans for SDF officer candidates were fulfilled for all three services in 2023. The GSDF hired 292 new people out of 1,581 applicants vying for 240 spots, and the MSDF hired 137 people out of 1,010 applicants vying for 120 spots. The MSDF hired 97 out of 1,317 applicants competing for 94 positions.[41] These findings are visually represented in Figure 1.2.

[36] Japan has reduced its number from a peak of 273,801 in 1995 (Ministry of Defense (Japan), *Defense of Japan 2010* [平成 22 年防衛白書], 2010). In 2018, South Korea reduced its number of troops from 618,000—at the time of then–President Moon Jae-In's "Defense Reform 2.0" strategy—to 500,000 in 2022 (In-Bum Chun, "Korean Defense Reform: History and Challenges," Brookings Institution, October 31, 2017). Taiwan reduced its total number of forces from 240,000 to 215,000 in 2014 (Anthony H. Cordesman, Steven Colley, and Michael Wang, *Chinese Military Modernization in 2015: A Comparative Analysis*, Center for Strategic and International Studies, October 10, 2015).

[37] *Authorized strength* refers to the number allowed by the budget.

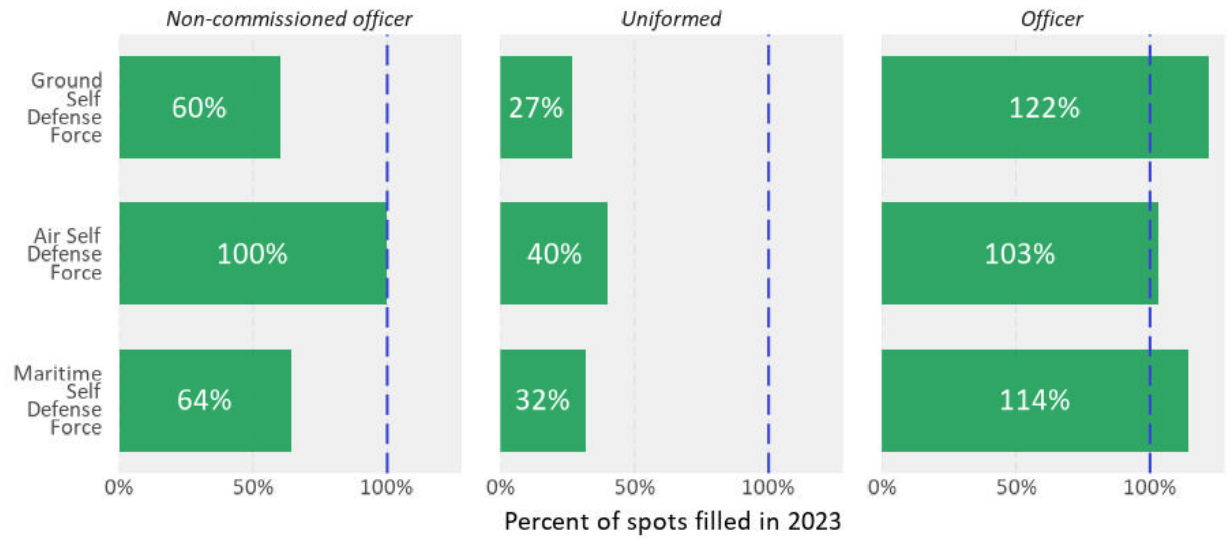
[38] Ministry of Defense (Japan), *Defense of Japan 2024 References* [令和 6 年度防衛白書　資料編], 2024a, p. 208.

[39] Ministry of Defense (Japan), 2024a, p. 209.

[40] Ministry of Defense (Japan), 2024a, p. 209.

[41] Ministry of Defense (Japan), 2024a, p. 209.

Figure 1.2. 2023 Japanese Self Defense Forces Fulfillment Rates of Military Personnel Positions



SOURCE: Features data from Ministry of Defense (Japan), 2024a.

Japan is also experiencing some retention problems. Career SDF officials leave the profession at higher rates than those of other public servants, such as police officers or firefighters; the rate of SDF officials who leave before retirement was 2 percent in 2020, while the same rate for other public servants was around 1 percent.[42]

South Korea has also decreased its active-duty requirements over the past 20 years, from 674,000 authorizations in 2006 to 500,000 in 2020, to promote a smaller but more effective military force.[43] However, South Korea is struggling to maintain its downsized military. In 2022, the number of South Korea's military personnel stood at 480,000, falling below the 500,000 benchmark for the first time.

The size of the force is expected to average about 470,000 over the next decade before falling to 396,000 by 2038.[44] A major reason for the drop in the number of military personnel is a recruitment problem. For example, the number of applicants for commissioned officers decreased from about 30,000 in 2018 to 19,000 in 2022 because financial and other benefits are unattractive compared with those of other professions.[45]

Although Taiwan's recruitment problems do not appear as severe as they do in Japan or South Korea, they are likely affecting frontline combat units. For example, Taiwan's Ministry of National Defense had 215,000 budgeted positions in 2018, including for 188,000 soldiers. Volunteer soldiers

[42] Ministry of Defense (Japan), "Report of the Expert Review Committee on Strengthening the Human Resource Base of the Ministry of Defense, Self-Defense Forces" ["防衛省: 自衛隊の人的基盤の強化に関する有識者検討会報告書"], webpage, updated November 5, 2024c.

[43] Gawon Bae, "South Korea's New Military Has a New Enemy: Population Math," CNN, December 29, 2023.

[44] Lee Hyo-Jin, "Can Korea Tackle Shrinking Military Manpower?" *Korea Times*, October 31, 2023b.

[45] Bae, 2023.

that year totaled 153,000, or 81 percent of the target.[46] The volunteer force increased in 2021, reaching 164,881, although it dropped to 159,392 in 2022.[47] But the overall number might be deceptive, as Taiwanese media reports indicate that the army's frontline combat units, such as armor, mechanized infantry, and artillery, consistently have personnel levels between 60 and 80 percent of authorizations.[48] Part of this problem is a result of retention challenges. In recent years, about 20 percent of the volunteer soldiers left the service early, using an amendment that requires volunteer enlisted soldiers who are unsuited for their roles to pay compensation and leave after three months, rather than serving out the required four years.[49]

Interestingly, not all allies and partners share the same attitudes toward personnel shortfalls. East Asian allies and partners have seen the demographic and social challenges developing over decades, while the military personnel gap is confronting NATO allies more rapidly and less clearly, spurred by the evolving threat and newly planned increases in their force sizes. However, these systemic troubles will continue regardless of force planning trends.

[46] Luo Tianbin [羅添斌], "Ministry of National Defense: 21,000 Soldiers Will Be Recruited in 2010, Which Will Be Reduced to 10,000 Soldiers Each Year After 2012" ["國防部: 108 年要募兵 2.1 萬人 110 年以後每年減為 1 萬人"], *Liberty Times*, October 21, 2018.

[47] Wu Su-Wei and Jonathan Chin, "Armed Forces Lack Volunteers: Report," *Taipei Times*, October 8, 2023.

[48] Paul Huang, "Taiwan's Military Is a Hollow Shell," *Foreign Policy*, February 15, 2020; Tu Junin [涂鉅旻], "Combat Troops Working Hard, Army's Staffing Ratio of the Seven Units Is Less Than 80%" ["戰鬥部隊辛苦 陸軍 7 兵種編現比低於 8 成"], *Liberty Times*, October 15, 2019.

[49] Wu Shu-Wei, "Soldiers Unfit for Active Duty Reach Record High," *Taipei Times*, May 8, 2023.

Chapter 2

Why? And How Are Allies and Partners Responding?

In this chapter, we examine the reasons for these trends in military personnel and how these partners have responded to these challenges.

Drivers of Negative Trends

Partner nations face common challenges and, by collecting regional evidence, we are able to further detail reasons for the trends described in Chapter 1. These reasons tend to be similar between Europe and East Asia, and they can be sorted into three specific categories: demographic, social, and economic causes.

Demographic Causes

For a multitude of reasons, the pool of recruits eligible to serve in the military has shrunk in recent years. This is mainly a result of lowering birth rates, emigration, and an increasing proportion of the public being ineligible for service because of health disqualifiers.

Birth rates have decreased across Europe, significantly limiting the pool of possible recruits. In 2022, the *crude birth rate*—the annual number of live births per 1,000 individuals—was nearly half of what it was in 1961.[50] In addition, the average number of children born per mother was recorded at 1.46 in 2022 for the European Union (EU); 2.1 live births per mother is required to keep a population in a developed country constant.[51] This trend has decreased the working age population across Europe, meaning that a smaller proportion of the population is of working age.[52] The decrease in native-born Europeans is also important for military recruiting: Because of citizenship restrictions in recruiting, decreases in births generally cannot be offset by increased immigration unless changes to recruitment policies are made.[53]

Additionally, a significant number of Europeans live in neighboring countries outside their home countries, which decreases the pool of individuals available for recruitment into European militaries.

[50] Eurostat, "Fertility Statistics," webpage, February 2024d.

[51] Eurostat, 2024d.

[52] David E. Bloom, David Canning, Günther Fink, and Jocelyn E. Finlay, *The High Cost of Low Fertility in Europe*, Harvard School of Public Health, June 2008.

[53] Matthew N. Metzel and John M. Lorenzen, "Military Force and Mass Migration in Europe," *US Army War College Quarterly: Parameters*, Vol. 47, No. 3, Autumn 2017.

For example, 1.5 million individuals changed their country of residence in the EU in 2022, and 17.1 million EU citizens were living abroad in 2019.[54] Because of statutory requirements lowering the barrier for EU citizens to live and work abroad within the EU, this constraint is unlikely to be easily overcome through domestic bureaucratic reform.

Deteriorating health conditions have also curtailed recruiting efforts. In failing to meet health requirements, an increasing proportion of individuals seeking to join the military are disqualified from accession. In Denmark, military recruiters were forced to turn away approximately 60 percent of potential recruits in 2022 because of weight and health standards, which is a significant increase from the 30 percent of disqualified recruits in 1995.[55] Sweden also recently reported that health determinants disqualified 64 percent of total applicants in 2023.[56] Health issues are the largest disqualifiers of potential recruits in the UK, accounting for 76,000 rejections from 2019 to 2024, or 60.5 percent of total rejections.[57] Some experts assert that disqualifying a large proportion of recruits because of medical factors can be used as a tactic to alleviate health care financial obligations for active and retired service members.[58] For instance, people with prescriptions cannot be recruited by the Canadian Armed Forces, but they can be retained if they then develop a need for a prescription.[59] Two health determinants have been cited as the main culprits for high rates of disqualification: obesity and mental health disorders.[60] Obesity is a significant public health issue in Europe, with obesity rates increasing among adults and children over the past several decades. A 2022 World Health Organization report found that 29 percent of children and 60 percent of adults in the region are obese.[61] Importantly, no country is predicted to decrease obesity rates by 2025.[62] Concurrently, rates of mental health issues have been trending upward; for example, the number of young individuals diagnosed with disorders in the EU doubled during the COVID-19 pandemic.[63]

Demographic problems are also a common obstacle to securing defense personnel in parts of the Indo-Pacific region. Japan's severe demographic problems are dramatically affecting available young talent, whereas both South Korea and Taiwan are increasingly leaning toward a smaller pool of conscripts.

Japan leads the world in aging, and its population is shrinking at a rapid pace. In 2020, 28.9 percent of the population was at least 65 years old—the highest percentage in the world—and the average number of expected babies born per woman was 1.2 in 2023—far lower than the replacement

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[54] Eurostat, "Migration and Asylum in Europe—2024 Edition," webpage, 2024c; Arnau Busquets Guàrdia, "Expat Vote: How Many Europeans Live Abroad," Politico, April 30, 2019.

[55] Hamilton, 2023.

[56] Plikt-och Prövningsverket, "Så här många inskrivna till värnplikt kommer från din kommun," press release, November 15, 2023.

[57] Action on Armed Violence, "Analysing Trends in British Army Application Rejections: A Five-Year Overview," February 15, 2024; George Allison, "Over 125,000 Applicants Rejected from British Army," *UK Defence Journal*, February 10, 2024a.

[58] Expert on European military personnel issues, interview with the authors, October 29, 2024.

[59] Expert on Canadian defense, interview with the authors, February 7, 2025.

[60] Hamilton, 2023.

[61] United Nations, "1 in 3 Children Overweight in the European Region: WHO Report," May 10, 2023.

[62] European Food Information Council, "Europe's Obesity Statistics: Figures, Trends & Rates by Country," October 17, 2024.

[63] Laurence Amand-Eeckhout, "Mental Health in the EU," European Parliamentary Research Service, PE751.416, July 2023.

rate of 2.1.[64] The number of births in Japan reached its lowest since the 1940s in 2023 at 727,277 births, less than one-third of the number of births in 1950.[65] The population has decreased as a result, totaling 123.78 million people in September 2023, down from 127.1 million in 2015.[66] The trend is expected to continue, and the population of those under 32, which is about 17.3 million as of 2024, is expected to drop to 15.7 million in 2034 and to 13 million in 2044.[67] Although South Korea's population began aging and declining in numbers later than Japan's did, it is catching up quickly.[68] In 2023, 18 percent of South Korea's population, estimated at 51.71 million,[69] was more than 65 years old.[70] The country has the lowest fertility rate in the world, at 0.72 births per woman in 2023.[71] As a result, the South Korean population between the ages of 15 and 24, which stood at 5.1 million in 2024, is expected to decrease to 4.3 million in 2034 and shrink further to 2.6 million in 2044, according to the country's statistics office.[72] The population in Taiwan has been more stable, with the island's total population standing at 23.5 million in 2020, up from 22.4 million in 2001. The age group between 15 and 64 years old grew from 16.84 million to 15.65 million over the same period.[73] But the future remains uncertain because Taiwan's birth rate remains low, falling to one of the world's lowest at 0.865 births per woman in 2023.[74] The number of births in 2021 dropped to a record low of 153,820, a reduction from 196,627 in 2011.[75] Furthermore, the population in Taiwan is aging, with 18.35 percent reaching at least 65 years old in 2023.[76] The proportion of that age group is expected to rise to 35 percent in 2050.[77] The changing population growth in East Asia is shown in Figure 2.1.

[64] Ryo Toyooka, "Those Aged 65 or Older Account for Record 28.7% of the Population," *Asahi Shimbun*, September 21, 2020; Ministry of Health, Labour and Welfare (Japan), *Overview of the Monthly Vital Statistics Annual Report (Approximate Figures)* [人口動態統計月報年計（概数）の概況], 2023.

[65] Ministry of Health, Labour and Welfare (Japan), 2023.

[66] Ministry of Internal Affairs and Communications (Japan), *Demographics* [人口統計], September 20, 2024.

[67] Ministry of Defense (Japan), 2023, p. 469.

[68] Kenji Yoshida and Jason Morgan, "A Population Expert Deciphers South Korea's Plummeting Birth Rate," *The Diplomat*, September 9, 2024.

[69] World Bank Group, Republic of Korea, database, undated.

[70] World Bank Group, "Population Ages 65 and Above (% of Total Population)—Korea, Rep.," dataset, 2024a.

[71] Jihoon Lee and Cynthia Kim, "In South Korea, World's Lowest Fertility Rate Plunges Again in 2023," Reuters, February 28, 2024.

[72] Korean Statistical Information Service, "Projected Population by Age Group (Korea)," spreadsheet, last updated December 14, 2023.

[73] National Statistics (Republic of China [Taiwan]), Monthly Bulletin of Interior Statistics [内政統計月報], database, undated.

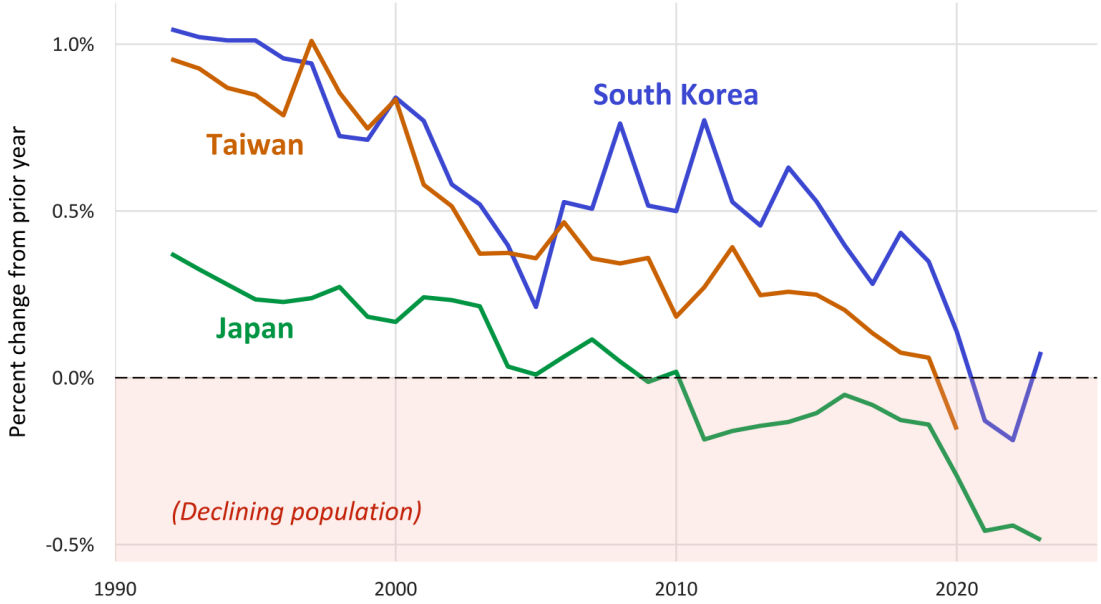
[74] Helen Davidson and Chi-Hui Lin, "Empty Classrooms, Silent Halls: Taiwan's Declining Birthrate Forces Schools to Close," *The Guardian*, June 14, 2024.

[75] Helen Davidson, "Taiwan's Military Recruitment Pool Shrinking Due to Low Birthrate," *The Guardian*, October 4, 2022.

[76] Lee Wen-Hsin and Esme Yeh, "More Than 23% of Elderly Live Alone, Ministry Says," *Taipei Times*, June 17, 2024.

[77] United Nations Department of Economic and Social Affairs, *World Population Ageing 2019*, ST/ESA/SER.A/444, 2020, p. 45.

Figure 2.1. Percent Change in Populations of Japan, South Korea, and Taiwan (1991–2024)



SOURCES: Features data from World Bank Group, "Population, Total," dataset, revised 2024b; National Statistics (Republic of China [Taiwan]), undated.

Social Causes

There are various societal factors that have contributed to the decline in military personnel. Although some of these factors are unique and context-dependent, they are also sometimes surprisingly similar across countries and regions.

Generational Cultural Shifts

Some scholars theorize that generational cultural shifts have decreased the martial attitude among young Europeans, although more research is required to confirm these trends. In a 2023 poll, 32 percent of Europeans were willing to fight for their country, while 47 percent responded that they were not.[78] Globally, four out of five states surveyed that were the least likely to fight were European. Other country-specific polling has corroborated these results; German youth have shown a decreased willingness to defend the country,[79] and a UK study found that only 32 percent of those aged 18–24 would be willing to defend the country.[80] Importantly, this trend does not seem to apply to NATO

[78] Gallup International Association, "Fewer People Are Willing to Fight for Their Country Compared to Ten Years Ago," March 25, 2024.

[79] John Vandiver, "Germans Show Little Inclination to Defend Country or Trust in Army to Do It, Poll Finds," *Stars and Stripes*, March 20, 2024.

[80] Freddie Sayers, "Britain Doesn't Want to Go to War," UnHerd, June 6, 2024.

frontline states, which have generally experienced an increase in their societies' willingness to fight since the Russia-Ukraine war.[81]

Anecdotal evidence shows that military service is not seen in a positive light in East Asia either. For example, in Taiwan, reports have shown young people questioning the value of their training and service, calling it a "waste of time."[82] In Japan, a 2023 government survey showed that the SDF has a favorable impression among the public, with 90 percent of respondents saying that they have a favorable or relatively favorable impression of the forces.[83] However, that has not translated into a willingness to join the forces: Only 9 percent of Japanese respondents to an international opinion poll said that they are willing to defend the country.[84]

Harassment and Controversy

Several controversies have deterred young recruits from pursuing a career in the force. Extremism has been a point of tension in several European militaries. In Germany, for example, several retired members of the *Bundeswehr* and one active-duty member of the *Kommando Spezialkräfte* were arrested in 2022 because of their involvement in a plot to overthrow the German government.[85] One company of the *Kommando Spezialkräfte* has since been disbanded and its personnel investigated for involvement in the plot.[86] Extremism and domestic terrorism recruitment efforts have also targeted members of the UK military.[87] This can sour people from joining or from staying in the force for long periods of time.[88] Given the significant role comradeship plays in influencing young people's decisions to join the military,[89] scandals surrounding political extremism in the military's ranks have the potential to substantially damage recruiting intake.

Systemic gender issues in many European militaries have also constrained the appeal of a military career for many female recruits. In 2020, only 11 percent of people serving in EU militaries were women.[90] This number is behind those of several close allies; in 2020, women made up 18.7 percent of

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[81] European Parliament, "Public Opinion on the War in Ukraine," April 1, 2022; Māris Andžāns and Andris Sprūds, "Willingness to Defend One's Own Country and to Resist in the Baltic States," *Security and Defence Quarterly*, Vol. 30, 2020.

[82] Eric Cheung, "'If War Breaks Out . . . I Will Just Become Cannon Fodder:' In Taiwan, Ex-Conscripts Feel Unprepared for Potential China Conflict," CNN, January 20, 2023.

[83] Cabinet Office of Japan, "Public Opinion Poll on the Self-Defense Forces and Defense Issues" ["自衛隊: 防衛問題に関する世論調査"], webpage, March 24, 2023.

[84] Gallup International Association, 2024.

[85] Katja Hoyer, "Why Do Some German Soldiers Seem to Be Rejecting Democracy?" *Washington Post*, December 9, 2022.

[86] "German Special Forces Unit to Survive Far-Right Scandal," Reuters, June 15, 2021.

[87] Claudia Wallner, Jessica White, and Simon Copeland, *Defending Our Defenders: Preventing Far-Right Extremism in UK Security Forces*, Royal United Services Institute, February 2024.

[88] Teun van Dongen, Yannick Veilleux-Lepage, Eviane Leidig, Hanna Rigault Arkhis, *Right-Wing Extremism in the Military: A Typology of the Threat*, International Centre for Counter-Terrorism, May 2022.

[89] Phillipe Manigart, Tessa op den Buijs, Erik van Doorn, Emma Jonsson, Valerian Lecoq, Rene Moelker, Johan Österberg, Nancy Otis, Frank Brundtland Steder, and Tibor Szvircsev Tresch, *The Impact of Demographic Change on Recruitment and Retention of Personnel in European Armed Forces: Opinions of Young Prospects and International Experts: Executive Summary*, European Defence Agency, April 2018, p. 6.

[90] European Institute for Gender Equality, "Gender Balance in the Security Sector," 2023, p. 11.

the total force in the United States and 13.5 percent of the total force in Canada.[91] In many countries, few female service members are represented in senior military positions. In the UK, for example, only 24 female service members held senior leadership positions in 2021.[92] A lack of female representation in senior roles has discouraged women from joining the military or increasing the lengths of their service.[93] Additionally, such factors as gender discrimination, bullying, and a hostile work climate are cited for decreasing the appeal of a career in the armed services for many women in Europe.[94]

Workplace harassment issues also contribute to the image problem in East Asia. In Japan, harassment allegations have increased, with 857 incidents reported in FY 2023, compared with 109 incidents reported when a hotline was established in FY 2016. About 80 percent of the reported incidents were categorized as power harassment. The cumulative number of those who received punishment for harassment numbered 549. Of that total, 30 people were removed from their posts, which is the most serious of punishments. Of those 30 cases, 27 involved sexual harassment violations, and the rest involved power harassment.[95]

Sexual harassment in the military is also a problem in South Korea, where the problem made national headlines when a female master sergeant committed suicide in 2021 after she was bullied for reporting that she was sexually assaulted by a senior officer.[96] There was an average of 400 sexual assault cases from 2017 to 2020, but only about 40 percent of the accused have been charged, according to a document cited by a South Korean lawmaker working on the issue.[97]

The problem is also on the rise in Taiwan. In April 2021, Taiwan's Ministry of National Defense reported to the legislature that sexual harassment allegations have increased steadily since 2016. The ministry reported that there were 41 confirmed cases out of 65 allegations in 2020, up from 24 proven incidents out of 38 allegations in 2016. The most common cases were those of men harassing women, and the perpetrators in the cases were often the victims' superiors.[98] The mistreatment of military personnel has, at times, led to a wide variety of protests in Taiwan. This includes protests in 2013, in which tens of thousands of people rallied in Taipei after a 24-year-old conscript died after being punished for bringing a mobile phone with a built-in camera on a military base against regulations.[99]

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[91] U.S. Department of Defense, *2020 Demographics: Profile of the Military Community*, 2020, p. 16; Carrie McQuiggan, "Missing the Target: Recruitment of Women in the Canadian Armed Forces," Canadian Forces Colleges, 2022, p. 1.

[92] Megan Harding, "Representation of Women in the Armed Forces," House of Commons Library, December 15, 2021.

[93] Katherine Prudhoe, Grace Hillerby, Apollina "Polly" Kyle, and Patricia Nguyen, eds., *Military Voices on the Gender Perspective: A NATO Anthology*, North Atlantic Treaty Organization, June 2024; European Organisation of Military Associations and Trade Unions (EUROMIL), *2023 EUROMIL Survey—Gender Equality/Women in the Armed Forces*, 2023.

[94] Expert on Canadian military personnel issues, interview with the authors, November 5, 2024; Defence Committee, *Protecting Those Who Protect Us: Women in the Armed Forces from Recruitment to Civilian Life*, House of Commons, July 25, 2021.

[95] Ministry of Defense (Japan), 2024a, p. 479.

[96] Mitch Shin, "South Korean Female Sergeant's Death Highlight Military's Problem with Sexual Assault," *The Diplomat*, June 14, 2021.

[97] Office of Kwon In-Sook, "Rep. Kwon In-Sook, 'Military Sexual Violence Caused by the Hierarchy and Power Should Be Severely Punished'" ["보도자료 '상관의 위계 위력에의한군성폭력 엄중처벌해야'"] press release, June 17, 2021.

[98] Chung Li-Hua and Jonathan Chin, "Confirmed Military Sexual Harassment Cases Rise 52 Percent to 41 Incidents," *Taipei Times*, May 16, 2021.

[99] "Taiwan Protest over Hung Chung-Chiu Death," BBC, August 3, 2013.

Economic Causes

Economic factors have also contributed to lower interest in serving in the armed forces, according to some sources. These factors tend to be a result of the competition between the private sector and the military for new young talent entering the workforce.

According to the Belgian military union, Belgium has struggled to recruit and retain talent because of the rising cost of military labor.[100] This is a result of the demographic shortage of people in the labor market, the inflation of pay for young talent in the private sector, and the rising costs of goods. Similarly, French parliamentarians concluded in early 2023 that the pay for NCOs was too low, resulting in dissatisfaction among troops that were otherwise motivated by merit and promotions and thereby negatively affecting retention.[101] Simultaneous economic inflation and increases in defense spending have also had a depreciating value on European rearmament in recent years, globally affecting the quality of life of military personnel in cases of persistent inflation.[102] In East Asia, too, economic opportunity costs are high on the list of reasons military service is unpopular. [103]

Conversely, economic crises can also sometimes result in higher recruitment rates for the armed forces; higher wages for military personnel compared with those in the civilian sector can result in more recruits, for instance.[104] The privatization of many traditional military functions in Europe—such as the construction of bases, maintenance, and administrative roles delegated to civilians—have also mitigated the negative effects of shortages without some of the military hardships.[105]

But this goes beyond pay. A military career includes several economic challenges that the service member and the family must deal with, and we suspect that a stable and sufficient compensation package would help them surmount these challenges to retain them. Stressors with indirect financial implications can include military infrastructure, relocations, international assignments, uncertainty, and the possibility of dying.[106] They also affect service members' entourages, with spouses often affected during deployment: Their negative perceptions, often driven by household income, can affect the ability both to recruit personnel and to retain soldiers once recruited.[107] The family's experience, however, is unequal across Europe. France has a history of family stress's impact on the retention of

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[100] EUROMIL, "News from ACMP-CGPM, Belgium 'Recruiting and Retaining Issues in the Belgian Armed Forces,'" undated-a.

[101] Laurent Lagneau, "De plus en plus de militaires du rang refusent de devenir sous-officier à cause d'un gain salarial 'trop faible,'" Zone Militaire, February 18, 2023.

[102] Fenella McGerty, "Global Defence Spending—The Impact of Inflation," International Institute for Strategic Studies, February 15, 2022.

[103] Shang-Su Wu, "Taiwan's Military Conscription Dilemma," *The Diplomat*, August 30, 2016.

[104] Vladan Holcner, Monika Davidová, Jiří Neubauer, Ľubomír Kubínyi, and Aloiz Flachbart, "Military Recruitment and Czech Labour Market," *Prague Economic Papers*, Vol. 30, No. 4, 2021.

[105] Scott Fitzsimmons, "Europe Without Soldiers? Recruitment and Retention Across the Armed Forces of Europe," *Canadian Foreign Policy Journal*, Vol. 19, No. 2, 2013.

[106] Giulia Carbonaro, "Why Are European Armies Struggling to Recruit Soldiers?" Euronews, February 16, 2024.

[107] Similar to the research conducted on military spouses in the United States, some European countries have also deployed some of their soldiers to foreign campaigns, such as Afghanistan. RAND has conducted extensive research and analysis on military spouses with findings for both the United States and the UK. See Thomas E. Trail, Carra S. Sims, and Margaret Tankard, *Today's Army Spouse Survey: How Army Families Address Life's Challenges*, RAND Corporation, RR-3224-A, 2019; Linda Slapakova, Kristin Thue, and Luke Huxtable, *Examining the Financial Stability of UK Military Families: An Exploratory Analysis*, RAND Corporation, RR-A2514-1, 2023.

soldiers, particularly as a result of overseas deployments, which is less pronounced in countries without foreign deployments.[108]

Attempts to Address Negative Personnel Trends by Conscription

Although the choice of accessing personnel via conscription is a fundamental and strategic one, it is also a decision that countries regularly reassess. It is no panacea, and multiple countries that have instituted a conscription system in the 21st century must still deal with recruitment and retention troubles. Using our review of the literature, we found that conscription systems typically focus on one of the four following fundamental purposes:

- **Provide personnel.** In such countries as South Korea, Norway, and Greece, conscripts can serve up to one year and even more, moving from initial training to assignment to positions in operational formations. How operational these units are might vary widely, and the conscripts' days might consist of standing guard, maintaining grounds or vehicles, or other menial or not specifically military tasks. However, they are in uniform and ready to defend the state or regime on short notice.
- **Provide a strategic reserve.** In other countries, such as Lithuania and Sweden, the term of service is shorter, often limited to the time needed to complete basic military training. These conscripts never go into the operational force and are primarily valued for their strategic relevance. If the country ever needs to expand its military to respond to an internal or external threat, these minimally trained individuals can be mobilized, and the process of conscription—for any length of time—allows the government to document, if not develop, these individuals' physical, mental, and social qualities.
- **Promote a more involved citizenry.** A third rationale sets aside the military value of conscripts and focuses on the positive social effects of going through a short, relatively arduous period of training alongside fellow citizens of different backgrounds. Some scholars argue that a citizen army is "not simply a military institution, but also a way of expressing and acquiring those patriotic commitments essential for the nation's survival."[109] Norway and Denmark are examples of military service as part of a citizen's duty to the nation without clear "military purpose."[110]
- **Improve total defense.** Although not different from the previous three categories, conscription helps the defensive capability of a given country against threats below the threshold of open conflict. In Finland and Denmark, compulsory service is recognized as providing the citizenry with valuable training applicable to societal resilience once they return to a civilian status. This enables a whole-of-society approach against threats that are increasingly hybrid and cannot be simply met by conventional defense.

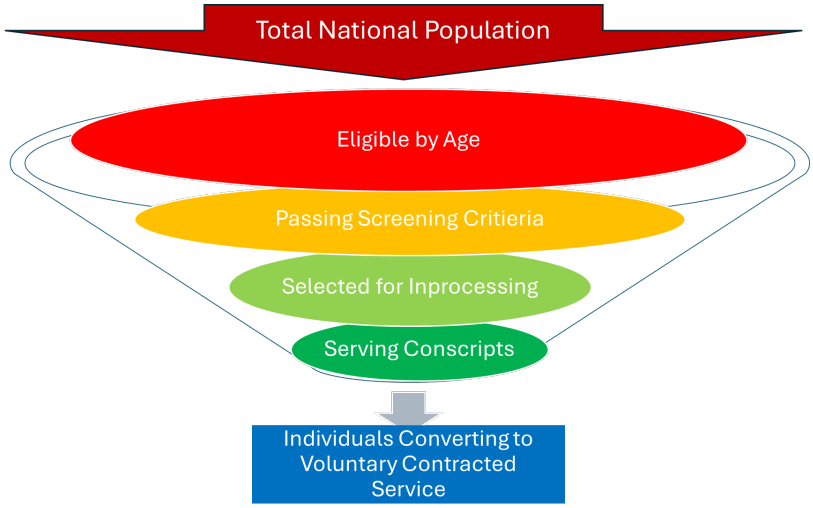
[108] Anne Gotman, *Les soldats Français ces inconnus*, Rue de Seine, 2023.

[109] James J. Sheehan, "The Future of Conscription: Some Comparative Reflections," *Daedalus*, Vol. 140, No. 3, Summer 2011, p. 113.

[110] Sheehan, 2011, p. 116.

Once it decides to institute conscription, a country then designs its conscription system by defining the specific demographic groups required to register or be available, the system of selection and waivers, the length of training and service, and the motivations to serve, including rewards and benefits associated with service. In Figure 2.2, we illustrate the process as a funnel, with the number of individuals affected diminishing as they pass through a series of screens before emerging as long-term members of the military. As demonstrated in the figure, the contracted individuals end up being only a fraction of the eligible population of a country.

Figure 2.2. A Notional Depiction of a Country's Conscription Choices



The critical point is that the standards at each point are, to some degree, controlled by the government, using its perceptions of qualitative and quantitative requirements in the final output. In Table 2.1, we describe the ways in which the pool of potential conscripts is affected by the different policies of the conscription system.

Table 2.1. Measuring the Choices in a Conscription System

Term	Metric	Least Demanding on Society	Most Demanding on Society
Gender neutrality	Gap between percentage of age-eligible men and women subject to the lottery	Women are not subject to the draft.	There is no distinction between men and women.
Universality	Percentage of age-eligible persons entering the lottery	A high percentage can avoid the lottery (e.g., automatic exclusions for students, family status).	Few can avoid the lottery.
Selectivity	Percentage of lottery entrants selected for service	Many are at risk, but few are chosen.	Most or all of those at risk for service are chosen.

Term	Metric	Least Demanding on Society	Most Demanding on Society
Avoidability	Percentage of those selected who enter service	Once selected, a conscript can be waived or hire a replacement.	It is very difficult to get out once selected in the lottery.
Militarization	Number of alternative forms of national service in addition to military duty	Only military personnel contribute to national security.	There is universal national conscription with service in operations.

A final option is to embed military service in a broader policy of compulsory national service. We discuss national service in more detail in Appendix A.

The reinstitution of conscription has featured prominently in recent debates about military recruiting challenges within Europe.[111] Through the implementation of conscription, militaries hope to substantially increase the number of personnel serving and guarantee a given number of individuals rotate through the force each year as a way to ease recruiting challenges in a short time horizon.[112] In Table 2.2, we explore the timeline of conscription for countries that have reimplemented it; a version of this table originally appeared in an article by Jonsson et al., but we expanded it with the countries of this study.[113] Lithuania, Sweden, Norway, Denmark, and Estonia have all either reintroduced or expanded the number of conscripts drafted annually in recent years, and conscription has reentered the national debate in such countries as Germany, Italy, Croatia, and the UK as a response to recruiting woes in the short term.[114] The six conscription systems in use in Europe and the two examined in the Indo-Pacific region provide some examples of policy intervention options but might not illustrate the full suite of possibilities.

[111] For instance, conscription has been debated in France ever since its inception in the 18th century. See Annie Crépin, *La conscription en débat, ou le triple apprentissage de la nation, de la citoyenneté, de la République (1789–1889)*, Artois Presses Université, 1998.

[112] For example, see Ministry of Defence (Latvia), 2022.

[113] See Emma Jonsson, Mikael Salo, Eleri Lillemäe, Frank Bruntland Steder, Thomas Ferst, Kairi Kasearu, Jurate Novagrockiene, Johan Österberg, Teija Sederholm, Sofia Svensén, et al., "Multifaceted Conscription: A Comparative Study of Six European Countries," *Scandinavian Journal of Military Studies*, Vol. 7, No. 1, 2024.

[114] George Zgardanas, "Conscription Comeback: How Europe Is Reinventing Military Service," European Organisation of Military Associations and Trade Unions, undated; Ronald Watkins, "Croatia Mulls Return of Military Conscription," Defense Post, January 23, 2024.

Table 2.2. Characteristics of Select European Conscript Systems

Characteristic	Denmark	Estonia	Finland	Greece	Latvia	Lithuania	Norway	Sweden
Recruitment type	Selective gender-neutral	Mandatory for men, voluntary for women	Mandatory for men, voluntary for women	Mandatory for men, voluntary for women	Selective gender-neutral	Mandatory for men, voluntary for women, supplemented by volunteers	Selective gender-neutral	Selective gender-neutral, supplemented by volunteers
Length of basic military service (rounded)	4–12 months	8 or 11 months	5.5, 8.5, or 11.5 months	12 months	11 months	9 months	6–18 months	6–15 months
Number of active personnel	17,000	7,500	31,000	115,000	8,000	18,000	27,000	25,000
Conscripts in basic training in 2020 (rounded)	4,200	3,100	21,000	Up to 57,500	N/A	3,700	8,000	5,000
Conscripts in basic training per 100,000 inhabitants (rounded)	72	236	379	48	211	135	148	48
Female participation in conscription	Mandatory since 2024	Voluntary since 2013	Voluntary since 1995	Cannot be conscripted	Voluntary since 2023	Voluntary since 2011	Mandatory since 2016	Mandatory since 2018 (supplement)
Percentage of conscripts who are female	25%	1%	4%	0%	2%	4%	25%	20%

SOURCES: Jonsson et al., 2024; Central Intelligence Agency, "Military and Security Service Personnel Strengths," *The World Factbook*, undated; Eurostat, "Demography of Europe—2024 Edition," webpage, 2024a.

Both South Korea and Taiwan rely on conscription for their military personnel, although both have shortened the length of service for conscripts over time because of societal pressures. South Korea has maintained the conscription system since its formal adoption in 1957. Under its system, all nondisabled men older than 19 years old must serve at least 20 months in the military and become part of the reserve forces for eight years. The length of service depends on the military branch. As of 2025, the Army requires 20 months (down from 36 months in the 1950s and 1960s) and the Air Force and Navy require 24 months (it was as long as 39 months previously).[115] Exemptions, which are determined through physical examinations, remain rare and have been below 3 percent in recent years. In wartime, most of the exempt have an obligation to provide civil support.[116] The Taiwanese military also relies on male conscription to maintain its force strength, although it has been suffering from unpopularity. In 2008, President of Taiwan Ma Ying-Jeou of the Kuomintang Party came into office promising to move Taiwan's military to an all-volunteer force within six years.[117] In that same year, the length of compulsory service was reduced from 14 months to one year and reduced further to four months in 2013.[118] However, Ma's successor from the opposition, President Tsai Ing-Wen, reversed the 2013 decision in January 2024, despite the unpopularity of the move, as a result of increasing criticism of poor training amid heightened tensions across the Taiwan Strait.[119]

Both countries are also making or considering changes to the conscription system to ensure that their military strengths are adequate. South Korea's mitigation measures include reviewing the supplementary military system, which has exempted elite athletes and musicians from most conscription obligations since 1973. Under the system, which is aimed at promoting national prestige, there has been heated debate in South Korea about who should be included in the exemption. This became international news when members of popular K-pop group BTS joined the military because they were not eligible for the exemption.[120] Meanwhile, Taiwan has sought to ensure military preparedness in response to criticism from some who have compared military training with "summer camp."[121]

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[115] Joonbum Bae and YuJung Julia Lee, "How Mandatory Military Service Can Divide Rather Than Unite: Conscription, Gender, and Military Trust in South Korea 2003–2021," *Armed Forces & Society*, March 15, 2024, p. 7.

[116] Bae and Lee, 2024, pp. 7–8.

[117] Fu S. Mei, "Taiwan's Defense Transformation and Challenges Under Ma Ying-Jeou," *China Brief*, Vol. 11, No. 7, April 22, 2011.

[118] Taiwan Insights, "Volunteer Military Service to Start from 2013," January 17, 2012.

[119] John Dotson, "Taiwan Initiates Its One-Year Military Conscription Program," *Global Taiwan Brief*, Vol. 9, No. 3, February 7, 2024.

[120] Kim Eun-Jung, "S. Korea's Low Birth Rate Poses Challenges to Military Conscription," Yonhap News Agency, December 6, 2023.

[121] Claire Tiunn (Chang), "To Change Taiwan's Conscription System, Change the Culture," Pacific Forum, November 29, 2022.

Attempts to Address Negative Personnel Trends in All-Volunteer Forces

If not by conscription, there are multiple broad ways—and no single solution—through which a government can respond to a military personnel shortage. These methods are sometimes combined, are rarely innovative, often fall short of addressing underlying problems, and can pose new problems, such as strains on the defense budget. Although some of these efforts are still proposals or have been implemented, all fall in line with existing trends in military personnel management rather than offering radical solutions.

Lifting Health and Age Requirements

One way militaries are attempting to widen the net of possible applicants is through the withdrawal of certain health requirements that prevent individuals from entering military service. The admittance of individuals with human immunodeficiency virus (HIV) is an example of such a change, with such countries as the UK and France recently adopting policies to allow these individuals to serve. European militaries have also reconsidered the retirement age for soldiers in hopes of altering bureaucratic requirements that limit individuals from serving.[122] These changes reflect a desire to decrease restrictions to increase recruits with little to no impact on operational effectiveness.

Japan has repeatedly raised the retirement age of SDF personnel from that of the 1990s as an effort to maintain its force size. For example, the retirement age for GSDF captains and master sergeants, which was at 54 years old in the 1990s, was raised gradually to 56 years old in 2023.[123] However, the retirement age of some of the highest ranks and specialized personnel—such as general or admiral—have remained the same at 62 years old, despite the civilian retirement age of 60.[124] Japan has also raised the age limit for entering service to increase the pool of applicants. In 2018, the country raised the age for SDF officer candidates and enlisted applicants and, in 2024, raised the age limit for aviation cadet applicants.[125] There are also possible downsides to an older force, including that an older force could be unhealthier than a younger one.[126]

Foreign Nationals Serving

In searching for ways to increase recruiting numbers, several countries have sought to permit more foreign nationals to serve within their armed forces. The British Army had stated its intent to alter security clearance requirements to make it easier for foreign personnel to obtain a clearance, for

[122] France and Belgium are examples of countries reconsidering the military retirement age (Richard Connor, "France Hikes Military Reservist Age to 70," Deutsche Welle, April 4, 2023; "Army Chiefs Criticise Plans to Raise the Retirement Age for Soldiers," VRT NWS, October 15, 2024.

[123] Ministry of Defense (Japan), 2024a, p. 472.

[124] Ministry of Defense (Japan), 2024a, p. 472; Jeffrey W. Hornung, *Japan's Potential Contributions in an East China Sea Contingency*, RAND Corporation, RR-A314-1, 2020.

[125] Ministry of Defense (Japan), 2024a, p. 466.

[126] Hornung, 2020, p. 87.

example.[127] Notably, European countries that have had long-standing laws and cultural norms forbidding foreigners from entering military service have begun to consider lifting these restrictions. For example, Germany has debated introducing laws to allow foreigners to serve in the military, a strategy recently proposed by the government.[128] However, questions remain around the total number of foreign nationals that would be allowed to serve, with several German lawmakers pushing for the eligibility of EU citizens only. In Portugal, another country that does not allow foreign nationals to serve in the military, the ruling coalition has also proposed allowing foreigners to serve.[129] It is also important to note that many EU countries already have policies allowing foreigners from a select number of nations to serve.[130] Increasingly, however, countries that do not allow foreigners to serve are considering deviating from their position as recruiting woes increase.

There have been some suggestions in South Korea to expand the pool of applicants to foreign nationals, but these suggestions have not gained traction. For example, in 2023, a lawmaker from the ruling party unsuccessfully argued that South Korea should consider allowing qualified foreign nationals who have Korean language proficiency to volunteer in the nation's military.[131]

Inclusion of Women and Minority Groups

Since moving toward a voluntary model, most countries have encouraged women's participation in the military. In 2000, in response to a European Court of Justice decision granting women access to all military careers, all vocations—including combat roles—have largely been opened to women across the continent, doubling the number of possible recruits. Women now make up a significant proportion of European militaries, ranging from 4.3 percent to 20 percent in NATO militaries as of 2016.[132] This is the leading example of a recruiting policy aimed at expanding military service eligibility, and this policy offers direct lessons for existing efforts to modify recruiting guidelines to include more groups from the population.

Similar trends exist in East Asia. Japan is also trying to attract new female recruits through reforms that allow more-flexible working hours; women make up 8.9 percent of SDF personnel as of March 2024.[133] Japan has also introduced a system that allows the reemployment of those who leave the SDF because of childcare or elderly care, and it is also considering encouraging men to take parental leave of more than one month to improve the work-life balance of its employees.[134] In South

[127] Holly Evans, "British Army Looks 'to Ease Security Checks' for Foreign Recruits to Boost Diversity," *The Independent*, February 11, 2024.

[128] Hannah Winnick, "Could Immigrants Serve in the German Military? A New Take on Integration, National Identity, and Achieving Critical Security Objectives," German Marshall Fund of the United States, undated; Zac Crellin and Nina Haase, "Germany Weighs Allowing Foreign Citizens into the Army," Deutsche Welle, January 22, 2024.

[129] Euro | Topics, "Foreign Recruits to Portugal's Armed Forces?" September 5, 2023; Natasha Donn, "Government Divided over Suggestion that Foreigners Could Join Portugal's Armed Forces," Portugal Resident, August 25, 2023.

[130] EUROMIL, "Recruitment of Foreign Citizens in European Armed Forces (Responses)," undated-b.

[131] Lee Hyo-Jin, 2023a.

[132] These figures do not include Iceland or Turkey (NATO, *Summary of the National Reports of NATO Member and Partner Nations to the NATO Committee on Gender Perspectives*, 2016, pp. 9–11).

[133] Ministry of Defense (Japan), 2024a, pp. 483–485.

[134] Ministry of Defense (Japan), 2024a, pp. 483–485.

Korea, there have been proposals to expand the pool of conscripts to women, but this has proven to be controversial. South Korea has a traditionally patriarchal society that is resistant to women serving in the military, and many feel that social discrimination against women should be addressed more generally first.[135] Furthermore, there could be social costs to such a step in South Korea because making military service compulsory for young women could have a further toll on the nation's declining fertility rate.[136]

Supporting Hardship

Some policy responses have attempted to alleviate some of the hardships associated with military service, which is a key concern for some. Providing better terms of service addresses some needs immediately (e.g., through family care and career guidance) or with follow-on advantages tied to veteran status (e.g., through education refunds or stronger retirement pensions). France and Germany have expanded family care recently to encourage more women to join the armed forces. Germany also aims to further support family members of soldiers and provide extensive childcare reimbursement.[137] Germany is also boosting retirement pensions for former service members under the new law.[138] French reforms have also included housing access, health care access, and common deployments for enlisted couples to avoid splitting families.[139]

The desire to improve the working conditions of the military can strain the defense budget, as seen in the cases of South Korea and Taiwan. Improving the working and living conditions of soldiers can result in trade-offs, such as the further curtailing of troop numbers to ensure that they will continue to serve and will be trained appropriately. Increases in salaries could create other types of contradiction. In South Korea, a sharp hike in conscripted solders' salaries means that sergeants are expected to earn 2 million won in 2024; this would be higher than a junior military officer's salary of 1.8 million won.[140]

Career Development

Given the extensive role that the private sector plays in attracting talent away from the armed forces, incentives for joining the military have also included educational opportunities, career support, and flexibility with private employers. Armed forces have set up human resources to provide career support while in the military and employment and educational support after service. In some cases,

[135] Lee Hyo-Jin, 2023a.

[136] Bae, 2023. Further research could explore whether, at some point, fertility rates in conscript-age women would be so low that this would not be a significant issue.

[137] Jörg Fleischer, "Bundestag beschließt neues Gesetz zur Gleichstellung in der Truppe," Bundesministerium der Verteidigung, November 17, 2023.

[138] Laura Kayali and Joshua Posaner, "Europe's Soldiers Keep Quitting, Just When NATO Needs Them," Politico, March 18, 2024.

[139] Laurent Lagneau, "Certaines indemnités seront prises en compte dans le calcul des pensions versées aux militaires," Zone Militaire, March 18, 2024.

[140] Lee Hyo-Jin, "Pay Raise for Troops Takes Toll on Military Budget," *Korea Times*, October 31, 2023b.

service members can enroll in higher education for free with direct support from the armed forces.[141] Generally, those benefits depend on the nature of the service, and, in some armed forces, the benefits increase gradually, depending on the time served to increase retention. On the other hand, benefits are sometimes subtracted if the service is interrupted before the agreed duration.

To diversify the base of applicants in other ways, Japan has introduced a system that allows former SDF personnel who left the force for personal or career-related reasons to return to the profession. For example, those under 52 years old who served as officers for more than a year and have certain special skills are able to apply to return at the same rank. Similar conditions exist for applications to lower ranks. For example, a pamphlet advertising this system shows a person who left the ASDF after six years but was rehired as a staff sergeant after working abroad for a year. The SDF has gradually increased its recruitment goal for this program from about 60 people in 2021 to 130 people in 2022.[142] Another system attracts people in the private sector with highly specialized skills to work in the SDF for a limited amount of time with salaries that equal those of top SDF and MOD officials.[143]

Service Duration

Armed forces have also rendered military service more flexible, notably in terms of duration, responsibility, status, and availability through various types of service. Germany, the Netherlands, and others have or are planning to reintroduce a voluntary military service using a questionnaire sent to young men turning 18 years old that asks about their suitability for and interest in serving in the armed forces. If favorable—and narrowed down competitively—recruits are then selected for a six-month service with an option to extend to 17 months.[144] Poland instituted a similar voluntary military service, along with a volunteer part-time service in the Territorial Defense Force branch in 2016. Recruits in the Territorial Defense Force serve locally and, therefore, have a better knowledge of the populace and territory and are faster and cheaper to deploy. Their basic training takes only 16 days, and they can serve while being full-time employed elsewhere and while receiving some benefits similar to those of full-time service members, such as tax exemptions.[145]

Better Pay

Another policy designed to encourage further recruitment is increasing pay for service members. The advantages of such a policy are twofold: They render service life more affordable in light of economic pressures and make a career in the military more competitive as a career. The recruitment

[141] Expert on comparative military personnel issues, interview with the authors, October 30, 2024.

[142] Japan ASDF, undated.

[143] "Ministry of Defense Aims to Secure Cyber Talent With High Salary, 'Specific Term SDF Personnel System' to Be Newly Established, Abolishment of the 'Shaved Head' Rule," ["防衛省, サイバー人材など高額で確保へ '特定任期付自衛官制度' 新設 '丸刈り' ルール廃止"], *Yomiuri Shimbun*, January 18, 2024; Ministry of Defense (Japan), 2024a, p. 466.

[144] Sarah Marsh, "Germany Proposes New Selective Military Service to Boost Defence," Reuters, June 12, 2024.

[145] Betsy Klein, Kaitlan Collins, Antonia Mortensen, and Anna Odzeniak, "'Patriotism Is the Common Denominator': Poland Volunteer Fighters Respond to the War Next Door," CNN, February 21, 2023.

strategy of the Hungarian armed forces has heavily relied on pay increases. Its personnel saw a 15-percent pay increase in 2021, a 10-percent pay increase in 2022, and an additional 11-percent increase in 2024, although their salaries are still below the European average.[146] However, there are limits to salary compensation as a tool for recruitment. During this period, Hungary saw an important increase in inflation and consumer prices, as did the rest of Europe.[147] Remuneration in the armed forces followed a broader pay increase societywide as well. A 2019 study found that the German Bundeswehr's compensation—considering purchasing power parity and compared with all career categories—was almost the highest for soldiers in Europe, yet Germany still had recruitment shortages in its volunteer system.[148] Since then, in 2020, Berlin increased the military pay for voluntary military service to be the same as that of temporary career volunteers' pay.[149] France instituted new compensations in 2021 that sought to drive up the level of income for its recruits; this was the first substantial salary increase in 20 years as part of the shift to a voluntary model.[150] Although it also included several bonuses—including those based on the number of one's deployments, responsibility, performance, and specific competences—its direct effect on the appeal of recruitment, other than retention, is disputed.[151]

East Asian countries are also trying to incentivize recruitment and retention by raising salaries and increasing nonfinancial benefits, such as better housing and improved education opportunities. Japan has not only increased the salaries of SDF personnel but has also taken a variety of steps to improve their working environment. In 2024, the SDF either increased the allowances of some personnel or introduced allowances for radar site operators, snipers, and those going through ranger training. Japan is also trying to improve the living conditions for SDF personnel by constructing private rooms for individuals and ensuring telecommunications capabilities so that SDF personnel on long-term deployments overseas or on ships are able to communicate with their families.[152] Japan has also taken measures to respond to harassment allegations in the SDF by strengthening punishments against such acts and establishing a special team in 2023 to review policies surrounding education and the reporting process.[153]

South Korea has also taken steps to improve the working conditions of its soldiers. First, it raised the salaries of its conscripted soldiers, who traditionally received only a fraction of the minimum wage, to compensate for the financial losses the young men incur while completing mandatory military service. This meant that a sergeant who was being paid just 216,000 Korean won a month in 2017 was receiving a salary of 676,000 won a month in 2022 and also 141,000 won in subsidies, making the

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[146] René Schulz, *Comparison of the Salary of European Armed Forces*, European Organisation of Military Associations and Trade Unions, September 2019; "Defence Minister: Army Staff to Receive Wage Hikes, Bonus Pay," *Hungary Today*, January 7, 2022; Ministry of Defence (Hungary), "Retroactive Salary Increase of Soldiers Due in March," press release, March 4, 2024.

[147] Trading Economics, "Hungary Core Consumer Prices," spreadsheet, undated.

[148] Schulz, 2019.

[149] Bundeswehr, "Voluntary Military Service: An Opportunity, Not an Obligation," webpage, undated.

[150] Ministère des Armées (France), "Nouvelle Politique de Rémunération des Militaires," webpage, March 23, 2023.

[151] Jacques Aben, "À propos de la 'Nouvelle politique de rémunération des militaires,'" *Revue Défense Nationale*, No. 854, November 2022.

[152] Ministry of Defense (Japan), 2024a, pp. 473–474.

[153] Ministry of Defense (Japan), 2024a, pp. 479–482.

total compensation 817,000 won a month with plans to continue incremental increases in both monthly wages and subsidies until 2025. South Korea also improved financial incentives for its career military soldiers to match those of other civil servants, mainly by increasing existing allowances for certain duties. Finally, South Korea also tried to improve the living conditions of its troops by providing more individual housing as well.[154]

Taiwan has also improved the salaries of military personnel. The salaries of high school graduates who volunteer have been set at a level that exceeds expected payments for university graduates. Although this has been credited for increasing recruitment, it has also contributed to financial problems for the Ministry of National Defense. The ministry's personnel expenses increased from 149 billion Taiwanese dollars in 2014 to 166 billion Taiwanese dollars in 2020, raising questions as to whether the number of active-duty volunteers should be decreased to lower costs. [155]

Relying on Technology

Japan, South Korea, and Taiwan are all planning to rely on advanced technology to offset the decline in personnel. Japan stated in its Defense Buildup Program, one of the three foundational defense documents updated in 2022, that "to account for Japan's aging population with a declining birth rate, Japan will robustly promote automation, labor-saving, and optimization."[156] Specific measures include the installation of a remote security monitoring system for SDF garrisons (which is included in the FY 2025 budget) that is expected to eventually remove the need for 1,000 security personnel a day; automation of warehouses that use state-of-the-art civilian technology; and the introduction of a variety of unmanned aerial vehicles.[157]

Meanwhile, South Korea is implementing the Defense Innovation 4.0 concept, which aims to take advantage of technologies, such as artificial intelligence (AI), autonomous vehicles, and robots, to respond to security challenges.[158] Taiwan is also using technology, including by establishing the Defense Innovation Team—which was inspired by the U.S. Defense Innovation Unit—to work on the development of drones and military applications of AI.[159] How much they can incorporate technologies remains an open question, and their defense plans still require personnel to execute.

All the policy responses presented in this chapter have produced mixed results in responding to structural forces. The following chapter explores the strategic implications of these personnel trends.

[154] Ministry of National Defense (South Korea), *2022 Defense White Paper*, 2023, pp. 269–270.

[155] Vanessa Molter, "Taiwan's All-Volunteer Force Transition Still a Challenge," *The Diplomat*, August 31, 2019.

[156] Ministry of Defense (Japan), *Defense Buildup Program*, December 16, 2022, p. 6.

[157] Ministry of Defense (Japan), "Summary of Review Committee on the Fundamental Strengthening of Human Resource Foundation" ["人的基盤の抜本的強化に関する検討委員会の概要"], webpage, updated August 30, 2024b.

[158] Ministry of National Defense (South Korea), 2023, pp. 107–108.

[159] Wu Che-Yu and Lery Hiciano, "Military to Focus on Tech for Defense," *Taipei Times*, September 20, 2024.

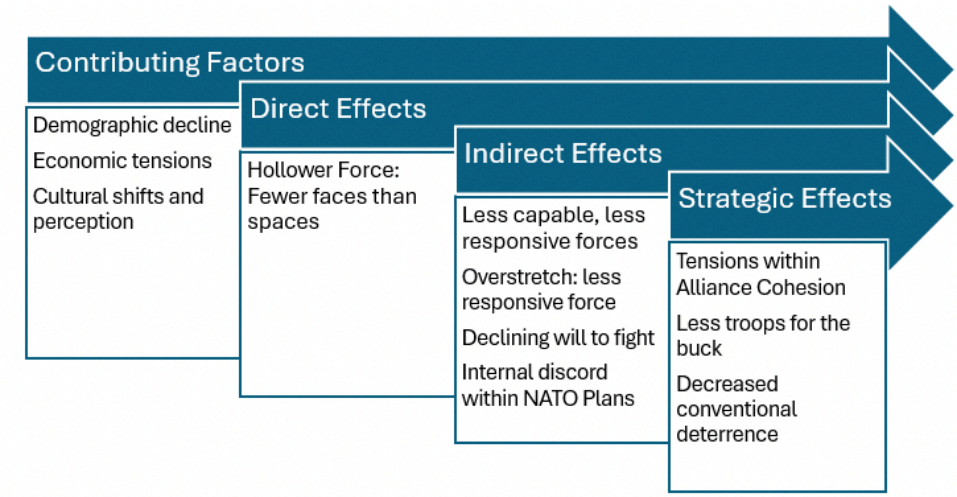
Chapter 3

Effects on Collective and Bilateral Defense

> As the British and French Military found in their time, a nation with extensive overseas obligations will always have a more difficult "manpower problem" than a state which keeps its armed forces solely for home defense; and a politically liberal and economically laissez-faire society—aware of the unpopularity of conscription—will have a greater problem than most.
>
> Paul Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000*, Random House, 1987, p. 521.

Personnel shortfalls are likely to affect not only U.S. allies' and partners' abilities to defend themselves but also their relations with the United States and U.S. military strategy. In this chapter, we examine the cascading effects of personnel shortfalls at three levels. As illustrated in Figure 3.1, the contributing factors discussed in Chapter 2 will first have *direct effects*, or the effects the shortage will have on the size and character of the forces. The second is the *indirect effect*, or what a reduced force size and capability from the aforementioned category could mean for military operations and capabilities. Finally, the third effect is the *strategic effect*, or what the indirect effect could mean for the ability of the United States and its allies and partners to deter adversaries and prevail, should deterrence fail.

Figure 3.1. How Personnel Shortfalls Cascade Toward Strategic Effects



In this section, we first discuss the security framework and the threat environment in East Asia to provide the context of differences from Europe. This is followed by the direct and indirect effects of failing to mitigate the problem and what these effects would mean for the United States, its allies, and its partners. Unlike Europe, U.S. allies and partners in the Indo-Pacific region are not part of a single multinational alliance framework. Instead, the framework in the Indo-Pacific region is based on the United States' independent bilateral defense treaty obligations with five allies, each with separate mutual defense clauses. Taiwan is not a U.S. ally, but a U.S. strategic partner to which the United States sends weapons to improve the island's defense.

In East Asia, the primary threats to U.S. allies and partners come from three countries: China, Russia, and North Korea. These three are among the top five countries with the largest active-duty military personnel in the world.[160] Of the possible conflict scenarios in East Asia, the North Korea–South Korea rivalry is the scenario in which ground armies are likely to be most relevant. North Korea has 1.28 million active-duty military personnel—the fourth largest military in the world—and an estimated 600,000 reserve soldiers. In comparison, South Korea's active-duty soldiers total 500,000, although South Korea has 3,100,000 reserve personnel.[161] Most other threat scenarios in the region require far greater air, maritime, and space forces than the personnel-intensive forces of ground armies do, with the exception of an increasing need for ground-based long-range strike capabilities. There are, however, uncertainties around how the threat landscape might evolve: Although their cooperation has taken various forms, as seen in the 1961 mutual defense pact between China and North Korea,[162] some of these relationships have expanded over the past decade. This includes, for example, the increased frequency and geographical reach of Chinese-Russian joint exercises since the mid-2010s.[163] Another example is North Korea sending munitions and troops to Russia's forces on the frontlines in Ukraine.[164]

Direct Effects

Having fewer personnel available for the responsibilities otherwise assigned to the end strength results in direct operational effects that affect both the quantity and the quality of the force.

Hollow Forces

If countries continue to miss recruiting goals without reducing their force structures, their structures will become progressively hollower. In fact, the specter of a *hollow force* is often raised in

[160] Central Intelligence Agency, undated.

[161] International Institute for Strategic Studies, "Asia," in *The Military Balance 2024*, 2024.

[162] Khang Vu, "Why China and North Korea Decided to Renew a 60-Year-Old Treaty," The Interpreter, July 30, 2021.

[163] Dmitry Gorenburg, Paul Schwartz, Brian Waidelich, and Elizabeth Wishnick, *Russian-Chinese Military Cooperation*, Center for Naval Analyses, March 2023.

[164] Ju-Min Park and John Geddie, "North Korea's Suicide Soldiers Pose New Challenge for Ukraine in War with Russia," Reuters, January 14, 2025.

U.S. contexts of lagging recruitment.[165] Historically, cases in the United States have suggested that poor personnel strength, operational readiness rates of equipment, numbers and types of equipment on hand, and performance on training exercises and evaluations all negatively contributed to a decline of readiness in the 1970s.[166]

Although military end strength size does not always equal military effectiveness, having fewer soldiers will necessarily affect the availability of personnel for planned exercises, either reducing the number of planned exercises or forcing participants to rely on reserves. Then, defense ministries will have forces that appear strong on paper but lack the actual training and readiness to fulfill their missions. Militaries can seek to prioritize quantity over quality to satisfy their military buildup. Countries that lower thresholds for recruitment, loosen training to avoid attrition of recruits, and maintain fewer specialized units will confront decreased readiness to make up for personnel shortages.

There are concerns around readiness levels in Europe, particularly after NATO's readiness verification for Tier 1 and Tier 2 had revealed insufficient quantities of personnel and readiness.[167] The Dutch Air Force, for instance, had to relax education prerequisites for certain roles to increase the pool of potential recruits because the service was struggling to fill some specialist positions.[168] But some are concerned that reduced requirements could result in the armed forces losing out on more-competitive talent.

East Asian allies and partners are trying to maintain their force strengths through a variety of mitigation measures. South Korea and Taiwan are trying to create leaner but more-effective forces, partly through better salaries and more-effective training.[169] Should the countries fail to meet their goals for recruitment and retention of military personnel, however, their forces will not only be smaller but could also become progressively hollower, as in the case of Europe described previously. The decrease in readiness could be a result of the lack of personnel for planned exercises but could also be a result of the prioritization of quantity over quality to satisfy their military buildup. If thresholds are lowered for recruitment or training is relaxed to avoid initial attrition of recruits, the capabilities of the forces would be lessened. There is anecdotal evidence indicating that this is likely to be a challenge. In Japan, for example, a recent media report cited a hiring manager who said that the SDF no longer has the capacity to choose those who have excellent qualities and are instead eliminating those who are not qualified.[170]

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[165] Andrew Feickert and Stephen Daggett, *A Historical Perspective on "Hollow Forces,"* Congressional Research Service, R42334, January 31, 2012.

[166] Feickert and Daggett, 2012, p. 5; Frank L. Jones, *A "Hollow Army" Reappraised: President Carter, Defense Budgets, and the Politics of Military Readiness*, U.S. Army War College, October 2012.

[167] As mentioned in Chapter 1, the different tiers refer to the readiness levels of NATO's Force Model. John R. Deni, *The New NATO Force Model: Ready for Launch?* NATO Defense College, May 2024; Monaghan et al., 2024.

[168] Rudy Ruitenberg and Andrew Chuter, "Hiring Woes Bedevil European Nations Stocking Up on Weapons," DefenseNews, January 10, 2024.

[169] Andrew L. Oros, *Asia's Aging Security: How Demographic Change Affects America's Allies and Adversaries*, Columbia University Press, 2025.

[170] Matsuda Komaki, "The Reason Why 'Extension of Retirement Age' Is Said to Be 'Actually Negative' for Understaffed SDF" ["人手不足の自衛隊 '定年延長' が 'かえってマイナス' とも言われる理由"], *Foresight*, July 10, 2024.

Indirect Effects

Overstretch

Personnel shortages can overstretch capabilities and constrain forces from addressing different threats and successfully fulfilling their assigned missions. Depending on the country and how hollow its forces are, these tensions can materialize differently.[171] The French military, for instance, has a long vaunted *bonsai* model—or, pointing to its versatility in small quantities by investing in quality over quantity—and has relied on its nuclear deterrent to obviate the need for mass.[172] When the French military was still operating in northern Africa, RAND researchers found that French military personnel were overstretched across multiple theaters, causing problems in reassigning roles in the event of a protracted conflict.[173] The French ability to project power abroad with its operational forces was thus hampered by deficits in recruitment. A French Senate report also found that French military personnel had to be diverted for high intensity warfare training instead of for counterterrorism.[174] However, this does not reflect a decline in the threat of terrorism: Highly frequented tourist destinations are still under substantial threat, illustrating how personnel shortages indirectly affect France's strategic capabilities.[175]

Overstretched armed forces can also degrade levels of troop training and equipment maintenance. A UK government inquiry into the 2021 crash of a British Royal Navy F-35 while on a UK carrier strike group deployment in the eastern Mediterranean region found that personnel had not received the necessary levels of training for operations at sea and had high levels of fatigue.[176] According to interviews with UK subject-matter experts, personnel shortfalls have resulted in the military backfilling empty positions with reservists.[177] The increasing proportion of reservists has led to deployed troops not always receiving adequate training to perform their roles in an operational environment or acclimatizing to the increased operational tempo of active-duty deployments compared with reserve duty responsibilities. UK defense officials have publicly stated that skilled personnel shortages have negatively affected the combat capabilities of the UK and allied EU countries over the past two years, challenging the widespread operational use of sophisticated weapon systems that require in-depth expertise to be effectively operated.[178] Additionally, shortages among NCOs and mid-level officers create a vacuum that generally pulls lower ranking personnel up the organization

[171] For more information on French contributions to NATO, see Ministry for Europe and Foreign Affairs (France), "France and NATO," webpage, updated March 2022.

[172] Michael Shurkin, "Why the French Army Will Continue to Prioritize Quality Over Mass," War on the Rocks, April 28, 2023.

[173] Stephanie Pezard, Michael Shurkin, and David Ochmanek, *A Strong Ally Stretched Thin: An Overview of France's Defense Capabilities from a Burdensharing Perspective*, RAND Corporation, RR-A231-1, 2021.

[174] Guillaume Jacquot, "Fin de l'opération Sentinelle: 'Il faut du courage politique,' estime le sénateur Cédric Perrin," Public Sénat, March 12, 2022.

[175] "France: Louvre and Versailles Evacuated amid Terrorism Alert," Deutsche Welle, October 14, 2023.

[176] Defence Safety Authority, *Service Inquiry: Loss of F-35B Lightning ZM152 (BK-18) of 617 Squadron RAF, Embarked on HMS QUEEN ELIZABETH*, November 17, 2021; Tony Osborne, "UK F-35 Accident Report Raises Broader Safety Concerns," Aviation Week Intelligence Network, August 11, 2023.

[177] Expert on European military personnel issues, interview with the authors, October 29, 2024.

[178] Ed Arnold, "NATO Societies Must be Ready for War," Royal United Services Institute, January 26, 2024.

faster than the system is designed to support. This not only exacerbates any shortages that already exist at the lower ranks, but these less-experienced individuals might also not be able to provide the expertise and leadership skills expected from their new roles.

Will to Fight

Existing personnel issues could also affect the military unit's organizational will to fight in the event of a contingency, which could decisively affect combat outcomes. Previous RAND research has demonstrated that training, quality, and competence are all important factors in the durability of a unit's fight, which could be negatively affected by lower thresholds of recruitment.[179] Additionally, overstretched units having to fill more responsibilities in addition to what they are trained for could have an impact on their resolve as well. The ebb and flow of analysis on the will to fight, taken as a military doctrine, can sometimes underestimate the behavior of soldiers and their abilities to hold a line, make critical decisions, and be effective on the battlefield. Conversely, lower levels of resolve can lead to indecisiveness, overreaction, and flight of units. However, the same research also notes that revenge and desperation play an important role in increasing the will to fight; an aggression could possibly positively affect the resolve of soldiers and result in a recruitment drive. But translating an inflow of new recruits into actual end strength takes time because of training and deployment, wasting what could be valuable time in the opening phases of a conflict.

NATO Plans

The feasibility of the NATO Force Model and its Deterrence and Defense of Euro-Atlantic Area concept could be affected if recruiting and retention trends continue. As detailed previously, NATO forces might need an additional 200,000–300,000 personnel, and the Supreme Allied Commander Europe has announced that existing levels are around 300,000 personnel ready.[180] If NATO countries continue to miss their recruiting goals, many of which are designed to merely sustain the existing force structure, European NATO members will likely have to choose between quantity (the half-million goal) and quality (high levels of readiness). Politically, NATO leaders will have to reckon with the realities associated with an increasingly hollow force.

Strategic Effects

Combined with and resulting from direct and indirect effects, the United States and its allies and partners could face higher-level threats. These threats are considered strategic, given that they could have broad impacts on policy if unmet.

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[179] The webpage "Understanding the 'Will to Fight'" consolidates a series of reports and briefings generated by the RAND Army Research Division on the subject (RAND Corporation, "Understanding the 'Will to Fight,'" webpage, undated).

[180] Sabine Siebold, "Exclusive: NATO Will Need 35–50 Extra Brigades Under New Defence Plans," Reuters, July 8, 2024; Hudson Institute, "NATO Public Forum: The Military Scene-Setter with SACEUR Christopher G. Cavoli," webpage, July 10, 2024.

Alliance Cohesion

Left unmet, the shortage in personnel might weaken relations between the United States and its allies. For NATO, these tensions could be similar to those surrounding the burden-sharing of military spending. In recent years, the disparity between what the United States provides for European security and what many European countries provide has become a domestic political issue in the United States; the problem of NATO countries that are not paying their "fair share" has become a political issue.[181] Alliance members have agreed to increase their defense expenditures to 5 percent of gross domestic product by 2035.[182] However, they might be receiving significantly less in personnel and force structure for the amount spent because equipment prices and salaries are increasing. This gap between rhetoric and reality is likely to cause increased political tensions with the United States, and the United States might view the lack of progress in building capable military forces as unacceptable while the U.S. Department of War struggles to allocate and apportion its military resources to other theaters, including the Indo-Pacific region and Middle East.[183] The consequences of this gap could be far-reaching if it goes unaddressed. NATO countries that fail to build the military capabilities that they need might struggle to contribute meaningfully to Alliance operations and exercises, potentially undermining the Alliance's credibility and effectiveness. The United States, in turn, might be compelled to take on a greater share of the burden, potentially straining its own military resources and exacerbating tensions with NATO allies. As the Alliance's security environment continues to evolve, the inability of key NATO countries to build capable military forces could lead to increased political tensions and, potentially, a reevaluation of the Alliance's priorities and commitments. Tensions have also arisen between "front-line states" and those that have struggled to spend more in defense.[184] Tensions could worsen if spending goals are met but allies still fail to provide the size and type of forces needed for NATO's new Force Model.

Similarly, tensions could increase between the United States and Japan and South Korea if the two East Asian allies become less capable of shouldering their shares of the defense burden and must rely more on the United States for defense. Although Taiwan is not a U.S. ally that the United States is obligated to defend, U.S. willingness to support the island could be affected if Taiwan is not seen as doing its part to defend itself.

Cost-Effectiveness

If NATO countries have to spend more to recruit and retain personnel from their own populations, the actual force structure value of what 2 percent of the gross domestic product buys is likely to be far less than estimated when the 2-percent target became a NATO standard in 2014. Even

[181] Kanishka Singh, "'Trump Again Conditions US Help to NATO Allies on Their Paying 'Fair Share,'" Reuters, March 19, 2024.

[182] NATO, "Defence Expenditures and NATO's 5% Commitment," last updated June 27, 2025b.

[183] On September 5, 2025, the President signed Executive Order 14347 to authorize the use of the name Department of War as a secondary title for the Department of Defense. This publication uses the new name, but cites documents published before that date using terms applicable at the time of publication.

[184] Daniel Michaels and Bertrand Benoit, "NATO's Front-Line Countries Are Doubling Down on Defense Spending. Others Aren't," *Wall Street Journal*, May 23, 2023.

worse, the newly proposed 5 percent as of 2025 could also be burdened by personnel expenses instead of rebuilding military equipment. Similar to the increased price tag for a modern tank compared with its price during the Cold War, the modern soldier has also become relatively more expensive. Actual costs of military personnel have continued to rise in real terms in Europe, just as they have in the United States.[185] The personnel cost of a single brigade is likely to be higher in real terms in the next five to ten years. Thus, even as more NATO countries spend more, they are receiving less while spending the same amount due to increasing personnel costs. There will be pressure to increase spending to 5 percent just to meet force the structure goals of the Enhanced Forward Presence and the NATO Force Model, and there will be difficulty in turning increased funding into a robust and effective military force structure that accounts for modernization goals.

In the face of military recruiting challenges and burden-sharing, some NATO partners—including the United States—might be tempted to focus their increased defense spending on weapons, ammunition, and other hardware for security assistance to frontline states rather than addressing domestic recruiting challenges. This security cooperation or security assistance approach, such as injecting money into the military-related manufacturing base, would be helpful in the short term and would demonstrate commitment and resolve while avoiding reforming military recruitment and retention strategies. However, such an approach could undermine the long-term sustainability of the Alliance because it fails to address the underlying structural issues and also reinforce fears of abandonment by frontline states.

Deterrence

A hollow force can be detrimental to conventional deterrence and even nuclear deterrence. NATO plans and concepts will lack credibility if the shortages persist. Russian military leaders might be wary of NATO's advanced capabilities but are also aware of NATO's capacity challenges. These challenges could change Russia's calculations for limited military action against non-NATO countries on the periphery. The Russian military has been badly damaged in capacity since its 2022 invasion of Ukraine. However, it has adapted and addressed its own personnel issues through extreme policy measures. It has ordered the mobilization of military reservists, recruited prisoners, increased the number of contract soldiers, and recruited foreigners, although the Russian military is still depleted after three years of war. Furthermore, Russia is now receiving considerable assistance from China, Iran, and, especially, North Korea.[186] As Russia continues to rebuild its military, Russian military strategists could propose aggressive actions against NATO interests to damage NATO resolve and cohesion and to seize territory.[187] Russian knowledge of internal NATO tensions could also allow it to further undermine NATO interests in other regions of the world using gray zone tactics and influence operations, which could overstretch U.S. assets. Thus, much of the U.S. assistance to European deterrence could also fall to U.S. nuclear forces. As the United States further delegates conventional

[185] Seamus P. Daniels, *Assessing Trends in Military Personnel Costs*, Center for Strategic and International Studies, September 2021.

[186] Michelle Grisé, "Russia's Speedy Military Rebuild Doesn't Tell the Whole Story," commentary, RAND Corporation, July 5, 2024.

[187] Ott Ummelas, "Norway Army Chief Sees Short Window to Boost NATO's Defenses," Bloomberg, June 3, 2024.

responsibilities to European countries as they face trouble in fielding the soldiers they need, the United States might also have to provide further reassurance of its commitments to its allies.

Similarly, this could negatively affect deterrence of adversaries in East Asia. This is not only because smaller-than-expected forces could signal to adversaries that allies do not have enough military power to deter military adventurism through the threat of denial (their unlikelihood of success) or the threat of punishment (incurring unacceptable costs). But increased dependence on allies could lead to tensions within them and embolden adversaries, whose chances of success in achieving their strategic goals would improve, especially if more than one conflict that concerns the United States takes place at the same time.

Overall, reducing the reliance on personnel might eventually result in an overreliance on other capabilities or on other partners and allies. This has dramatic impacts on the strategies employed by the United States and its allies, their means of achieving these strategies, and their abilities to sustain these efforts long term because these accrued effects will pose significant risk. As direct, indirect, and strategic effects cascade, militaries will require more-complex solutions.

Chapter 4

Rethinking Personnel Paradigms

Starting with a System Approach

If, as we argue previously, the problems are systemic, it follows that the systems must change to allow the military forces to function. But how is a military personnel system defined, and what are the dimensions along which it can be changed?

A framework for defining these systems and describing national changes over time is found in the work of Charles Moskos, a leader in military sociology from the early 1970s to the early 2000s. In his chapter in the edited volume, *The Postmodern Military*, Moskos compared three eras in U.S. military policy using 11 variables, which were then applied to 12 countries.[188] For example, in the United States, the Force Structure model changed from a mass army with periods of conscription in the modern era (1900–1945) to a large professional army in the late modern era (1945–1990) to a small professional army in the postmodern era (1990 onward). Other variables include the public attitude toward the military and the role of women in the service.[189]

In their edited volume, Moskos, Williams, and Segal were not arguing that all these militaries had completed their transition to the postmodern level of each variable, but that these militaries were headed in this direction.[190] As Moskos concluded,

> The social sciences can come to grips with constantly changing realities only by recasting conceptual frameworks. Of course, experience teaches us that it would be unwise to claim an indefinite life expectancy for any new paradigm. But when reality makes the postmodern framework obsolete, so be it. For the foreseeable future, however it appears to be a good guidepost to armed forces after the Cold War.[191]

Our core question, therefore, is whether that expiration date has arrived. As put by Krastev,

> A decade ago, Europeans considered the fact that war had become unthinkable a major success of the European project. Historians were asking, "Where have all the soldiers gone?" and celebrated Europeans' unwillingness to fight wars. Now, as Europe's new reality of war and rearmament sets in, the question becomes: Where will all the soldiers come from, given Europe's aging population and decades-long

[188] Charles C. Moskos, "Toward a Postmodern Military: The United States as a Paradigm," in Charles C. Moskos, John Allen Williams, and David R. Segal, eds., *The Postmodern Military: Armed Forces After the Cold War*, Oxford University Press, 1999.

[189] The 11 variables named were perceived threat, force structure, major mission definition, dominant military professional, public attitude toward military, media relations, civilian employees, women's role, spouse and military, homosexuals in military, and conscientious objection (Moskos, 1999, p. 15).

[190] Charles C. Moskos, John Allen Williams, and David R. Segal, eds., *The Postmodern Military: Armed Forces After the Cold War*, Oxford University Press, 1999b.

[191] Moskos, 1999, p. 27.

> demilitarization? After centuries of horrific wars, the pacification of the European mind was the major political achievement of the post–World War II period. Now, it has become a security vulnerability.[192]

To identify radical changes, we start by focusing not on variables (as Moskos, Williams, and Segal did) but on seven more-constant characteristics of what we are calling the *military personnel paradigm*. We identified eight radical ways for remodeling this paradigm, and we further explore these options later in this chapter. For each option, we elaborate on the relevant thinking behind existing policies, ways in which these policies could change, why one might expect such changes to yield significant results in the future manning of military forces, and how one might implement changes in these policy areas. We considered some other options to be outside the scope of this initial analysis, which includes ways to decrease the total demand for personnel (or for particularly hard-to-fill specialties) by radically changing foreign policy objectives or by relying more on unmanned platforms or AI.

Beyond the Postmodern Military

The value of Moskos, Williams, and Segal's 11 dimensions is that they provide a template for evaluating change within a military system.[193] The idea that military systems change along these 11 dimensions but not necessarily in the same way or in a single direction is a strength of the Moskos, Williams, and Segal's model because it supports analysis of incremental policy change over time. However, our focus on the systemic risk of critical personnel shortfalls led us to ask whether these editors excluded from their model important features of military systems that were not questioned during the 20th century. Seeking these apparent constants might help us identify features of the system that have been internalized by members of the military and ask whether these assumed features are, in fact, the policies that need to be reevaluated if radical change is needed. Reviewing the historical literature on the evolution of modern militaries,[194] we derived our own list of the following seven pillars, which operate at an even deeper level than that of Moskos, Williams, and Segal's 11 variables:

- **A voluntary force:** In general, postmodern militaries have operated under the notion that military service should be an individual choice, and conscription exists only as a reaction to a clear threat or prolonged difficulties in filling the ranks. As we discuss later, this is not a binary

[192] Ivan Krastev, "Who Will Still Fight for Europe?" *Foreign Policy*, July 1, 2024.

[193] Moskos, Williams, and Segal, 1999b.

[194] Although we did not encounter a single work that listed pillars at the level we were seeking, our research was informed by several authors who explored the underlying tenets of military systems. These included the many contributors to Don M. Snider and Gayle L. Watkins, *The Future of the Army Profession*, 1st ed., McGraw-Hill Primis Custom Publishing, 2002; Gian Gentile, Jameson Karns, Michael Shurkin, and Adam Givens, *The Evolution of U.S. Military Policy from the Constitution to the Present*: Vol. I, *The Old Regime: The Army, Militia, and Volunteers from Colonial Times to the Spanish-American War*, RAND Corporation, RR-1995/1-A, 2020; Sean M. Zeigler, Alexandra T. Evans, Gian Gentile, and Badreddine Ahtchi, *The Evolution of U.S. Military Policy from the Constitution to the Present*: Vol. II, *The Formative Years for U.S. Military Policy, 1898–1940*, RAND Corporation, RR-1995/2-A, 2020; Elizabeth Tencza, Adam Givens, and Miranda Priebe, *The Evolution of U.S. Military Policy from the Constitution to the Present*: Vol. III, *Another World War and Cold War*, RAND Corporation, RR-1995/3-A, 2020; M. Wade Markel, Alexandra Evans, Miranda Priebe, Adam Givens, Jameson Karns, and Gian Gentile, *The Evolution of U.S. Military Policy from the Constitution to the Present*: Vol. IV, *The Total Force Policy Era, 1970–2015*, RAND Corporation, RR-1995/4-A, 2020; Victor Davis Hanson, *Carnage and Culture: Landmark Battles in the Rise of Western Power*, Doubleday, 2001.

decision. Conscription regimes involve decisions about who is subject to involuntary service, the length and conditions of that service, and the share of the total personnel requirement that a country expects to fill.[195]

- **Commissioned officers, warrant officers, NCOs, and enlisted personnel:** Most countries have some form of stratification among personnel duty types. More than a simple hierarchy, it borders on a class system in which the most junior officer receives material benefits, courtesies, and privileges not shared by the most senior enlisted person. There are similar distinctions in the civilian world, yet, in the military, the separation between enlisted and officer tracks is very clear and governed by strict rules. Transitioning tracks require additional qualifications and commissioning programs.
- **Regular versus reserve personnel:** There often tends to be a body of service members on full-time duty and a separate group that functions as part-time labor or has a commitment to serve when called to duty.[196] Even in countries that actively manage their reservists, movement between these two groups—commonly called *components*—is not fluid and often requires approval from superiors. There generally are differences in material benefits, opportunities for training or desirable duties, and status.
- **Service members versus veterans:** Most have a fairly clear line between individuals actively serving and those who completed service. The latter might have some obligation to return to service if circumstances became particularly dire, but the realities of age and skill attrition mean that even such emergency service would be in a diminished capacity.
- **Status hierarchies (combat versus support, pilots versus navigators, special operations forces versus conventional forces):** Compared with previous tenets, there are less visible relationships among members of a given military service. In the United States, higher status is given in particular periods to combat-aircraft pilots, then other pilots, then other airmen; active or past ship captains over other Navy officers; and special operations soldiers or combat arms soldiers over other specialties.[197]
- **Physical prowess:** Overlapping with the higher status given to some occupations, there is a broad assumption of a minimum level of physical skill. Services tend to have fitness tests for all members, even if some career paths have more-rigorous standards as well.
- **Service identity versus jointness:** Distinctions are made between service members whose duties focus on different domains, such as the differences between sailors, soldiers, airmen, marines, and other groups in a particular country's forces. Although a nation's defense system might try to promote jointness or integrate different services in operations and staff structures,

[195] Moskos, Williams, and Segal (1999b) speak of both conscription and the reserve system in terms of overall force composition. We are suggesting that militaries with sustained personnel gaps need to conduct deeper analysis of the policy choices within each area.

[196] Many countries do not provide their reserves with peacetime training or missions and treat them only as a mobilization pool. Sometimes, a country's reserves are as basic as lists of discharged service members, with little expectation that they will be called on for further service.

[197] Anna Simons and David Tucker, "United States Special Operations Forces and the War on Terrorism," *Small Wars and Insurgencies*, Vol. 14, No. 1, 2003.

these instances are occasional and temporary, but sailors, for example, are primarily recruited, train, live, and act with other sailors.

Eight Radical Options

Not all the seven pillars within the existing military paradigm suggest specific policy changes, but several do. Our list of eight possible solutions that we present in this section is not meant to be exhaustive but is meant to provide a variety of examples and inspire future discussion and research. We summarize these solutions in Table 4.1. We envision that countries experiencing or expecting sustained, systemic personnel shortages should consider the possibilities as needed, although not all would be appropriate for all countries. As with any entrenched policy, change would require answers for a long list of legal, financial, political, and cultural (and more) questions, so we include in Table 4.1 examples of potential limiting factors that we expect could be relevant to each option, depending on the country. Many of the examples presented are from the U.S. military. This reflects both our personal areas of expertise and the available analytical research; we expect that additional research will identify a more diverse set of relevant national programs.

Table 4.1. Radical Options for Reforming the Postmodern Military Model

Reform Option	Theory of Change	Examples or Experiments	Limiting Factors
Integrate conscription into the total force	Focus on converting conscripts to careerists.	Sweden	Overcoming previous national experiences with conscription
Eliminate the officer corps as a distinct status	Eliminate class culture and increase career options.	Countries with more-egalitarian cultures	Cultural obstacles
Promote a full continuum of service	Make more efficient use of existing personnel and improve retention.	U.S. Space Force, Australia	Legal and administrative barriers
Adapt fitness standards to national conditions	Focus on individuals meeting physical requirements for specific duties.	The UK's physical fitness reforms, among other policy changes	Integrating with programs to increase "warfighting ethos"
Expand conditions of service	Allow duty in more times and places to reduce job and life conflicts.	Pandemic adaptations, decentralized innovations	Regulatory and administrative barriers
Recruit noncitizens	Noncitizens provide a large available pool of human capital.	French Foreign Legion (FFL), Army 09L MOS	Potential security risks
Privatize security missions	Allow individuals to bypass constraints of uniformed service.	Use of contractors in Operation Enduring Freedom and Operation Iraqi Freedom	Weakening of standards and military professionalism

Reform Option	Theory of Change	Examples or Experiments	Limiting Factors
Increase the free market of internal labor	Breaking from standard pay and promotions would increase supply in the most-competitive careers.	Existing bonus and incentive pay, U.S. military assignment "markets"	Increased costs, the ability to target groups, trust in AI and machine learning enablers

Reform Option 1: Integrate Conscription into Total Force Management

Given that conscription has already been on the table for many countries, as explained in Chapter 2, simply bringing back a version of the draft is not a radical reform anymore. What we would consider radical today is for countries to change how they think of conscription. The two traditional models of conscription are (1) short periods of training that generate large numbers of minimally qualified reservists and (2) maintaining moderate numbers of low-ranking active-duty personnel for a year or two. We suggest that countries should explore a third model, in which conscription is seen as one of several entry points to military service, after which individuals are not treated as temporary help with short shelf lives but as potential career service members on active duty or reserve status.

Characteristics of such a total force-focused conscription model would include the following:

- **Giving conscripts agency:** There are many reasons why a randomly selected young adult probably should not be treated as a likely career service member. Therefore, giving individuals distinct choices will allow the services to focus on those with the most potential for longer service. This includes placing conscription within a broader program of mandatory or heavily incentivized national service; allowing individuals to move to low-readiness reserve status after basic military training; and allowing individuals to have input into their specialty designation, duty location, or other actions after basic training.
- **Compensating conscripts competitively:** Although voluntary service could be incentivized through enlistment bonuses or other benefits, conscripts also need to feel part of the institution. The practice of paying conscripts the traditional minimal salary would seem to maintain social and cultural divisions within the services and encourage the conscripts to return to civilian life as soon as possible, which is counter to the military's long-term interests.
- **Respecting reserve service:** This model of conscription feeds both the regular and reserve forces. In our review of countries using conscription as of 2025, we found that former conscripts are almost universally treated as a static and strategic resource that is expected to provide no more than the skill level they had when leaving service, either degraded by time or marginally sustained through intermittent training. The alternative would be to treat them similarly to how voluntary reservists are managed in militaries with a more robust reserve force. These voluntary reservists commonly receive additional training and part-time experience to develop their military expertise; they might also be channeled into specialties that take advantage of whatever education or occupational skills they develop as civilians.

Sweden's model of conscription, as detailed in Chapter 2, contains some elements of this proposed model. Conscription is mandatory but has a cachet of social recognition. The individual's attitude

toward military service is accounted for in the preselection screening, and those selected presumably have a higher propensity toward remaining on active duty past the mandatory period. Additionally, volunteers and conscripts share the same training: It is easier for the latter to join the career path later.[198] But for some allies, this requires overcoming a painful history of mandatory conscription. Although mandatory military service might no longer be associated with military dictatorships, controversial wars, or other painful histories, it still holds important cultural significance globally. Reintroducing a form of mandatory military service would require a societal paradigm shift for many countries with an embedded voluntary model and a distrust of linking the rights and duties of citizens to military service.[199]

Reform Option 2: Eliminate the Officer Corps as a Distinct Status

Once individuals are within the military personnel system, they enter into a class system. Individuals can enter military service as commissioned officers,[200] in charge of managing forces and resources, devising plans and policies, and speaking for the institution to outsiders. Officers are paid more, called *sir* or *ma'am*, and live in whatever are considered to be nicer rooms. Otherwise, individuals enter as rank-and-file service members—or enlisted personnel, although they include NCOs—starting at the bottom of the organization; progressing up the ranks; and supervising, training, or supporting those who have replaced them at the bottom. However, enlisted personnel remain below the most junior officers in status unless they become officers themselves. These differences are often reinforced by administrative rules that treat the groups differently in the processes for accession, retention, promotion, and retirement.

There are exceptions, such as warrant officers in the U.S. military, and one can move ranks with the right combination of training and education. Although the conditions have changed and broadened over time, many of the characteristics of the system go back to ancient and medieval militaries,[201] corroborated by comments about "lineage" from Moskos, Williams, and Segal.[202] Is that the end of the story? Should demonstrated knowledge, skills, and attributes, which could be gained in various ways, not play a bigger role?

In many of the countries we are discussing, the emergence of the NCO position has blurred the clear distinctions in responsibilities, which reinforced the existence of this system. Enlisted personnel continue developing expertise and increasing their responsibilities for the durations of their careers. As a result, differences between a field grade officer, warrant officer, and senior NCO have less to do with

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[198] Expert on Swedish military policy, video interview with the authors, November 12, 2024.

[199] Sheehan, 2011.

[200] For the purpose of this report, the legal distinctions among commissioned officers, warrant officers, and NCOs (in the U.S. context) might cause confusion. We will use *officer* to describe what are more properly called *commissioned officers*, and we include all NCOs in the enlisted category. In U.S. Army and Marine Corps terms, this would range from grades E1 to E9 and ranks from the lowest private to different types of sergeants major.

[201] F. S. Naiden, "The Invention of the Officer Corps," *Journal of the Historical Society*, Vol. 7, No. 1, March 2007.

[202] Charles C. Moskos, John Allen Williams, and David R. Segal, "Armed Forces After the Cold War," in Charles C. Moskos, John Allen Williams, and David R. Segal, eds., *The Postmodern Military: Armed Forces After the Cold War*, Oxford University Press, 1999a.

their individual knowledge, skills, and attributes than with the positions they hold and the tasks they are assigned.

Proponents of changing the existing system argue that changes could improve recruiting by eliminating an artificial scarcity of opportunities, which turns away tens of thousands at cyclical rates because of selectivity.[203] Back to the Swedish example, Sweden's system exposes large groups of conscripts and volunteers to training and then sorts them into various types of training (including academies or government-paid civilian schooling); this includes individuals intending to become officers,[204] thereby breaking down the aforementioned class distinctions. Class distinctions might also be less evident in career fields using civilian-related skills, particularly in the reserve components, in which an individual might remain an NCO after a decade in the reserves but become a business executive, lawyer, or professor as a civilian; in this case, their status within their reserve unit might cross over the officer-enlisted divide.

As discussed with practitioners and researchers, critics of this type of reform usually view it as an attack on the overall rank structure and emphasize the importance of developing high-quality commanders or other related ideas, most of which we agree should remain part of the personnel system. In fact, we suggest that eliminating the class system could actually improve on some of these notions. Instead of promoting the idea of officers as commanders and senior enlisted personnel as technical experts, we suggest that merging the two paths could make it easier for all individuals to progress using their skills, leadership, and expertise without having to break out of initial enlisted or officer career lanes. Some military officials have also mentioned that the class system, with irregularities according to national or reserves-to-active policies, produces some inefficiencies in NATO's interoperable and multinational battlegroups.[205]

Critically, this proposed change better fits with public perception of workplace hierarchies. For example, previous generations routinely addressed parents, supervisors, government officials, and almost everyone older than the speaker as "sir" or "ma'am"; millennials are much less likely to do so, and this reflects a shift in the public perception of workplace hierarchies.[206] The most obvious way to eliminate this pillar would be to design the military rank structure as a single path with no way to enter at a higher level; an individual could ascend more rapidly through the ranks if qualified, eventually taking on the duties we now think of as officer level. A classless career ladder simply requires that a soldier develop more talent and demands more responsibility, maturity, or expertise. There would be no inconsistencies, such as that between a platoon sergeant with 15 years' experience and his immediate supervisor—a lieutenant with perhaps a year of active training and a bachelor's degree—whom the sergeant must salute if they pass while walking from their respective housing areas.

[203] William Treseder, "It's Time to Abolish the Enlisted-Officer Divide," Task and Purpose, June 4, 2015.

[204] Expert on Swedish military policy, video interview with the authors, November 12, 2024.

[205] Expert on European military personnel systems, interview with the authors, June 6, 2024.

[206] Andrea Hershatter and Molly Epstein, "Millennials and the World of Work: An Organization and Management Perspective," *Journal of Business Psychology*, Vol. 25, No. 2, June 2010.

Reform Option 3: Promote a Continuum of Service

This concept is defined as reversing the existing division between regular and reserve components. In every military we studied in the previous chapters, significant barriers are placed between the two components; these barriers are sometimes organizational but sometimes include different benefits and less respect for their service. As Vincent Connelly, an academic focusing on military reserve policies, succinctly notes for his own country, "There have always been internal tensions reported between the full-time regular army and the part-time reserves in the British Army during their shared 300-year history."[207] As mentioned in Chapter 2, divisions between civilians and the military are a recurring challenge for those joining the reserves, but breaking these divisions down and allowing more flexibility might aid the policy priority to improve reserves, such as the priorities of many European countries.

Although the existing U.S. model might date to the early 20th century, most countries have centuries of experience with local militias, conscripts with an obligation to return to service when called, or other expressions of the part-time soldier. As with the officer corps, traces of this can be found as far back as the *limitanei* of the Roman Empire—veterans given land in exchange for guarding the *limites*, or frontier areas.

We have found that the U.S. Space Force is the most significant challenger to the existing model, and its structure is very contemporary and a work in progress.[208] Its Chief of Space Operations' vision is

> There will no longer be "Active Duty" and "Reserve" components supporting space operations; there will simply be "Guardians" serving in full and part-time positions with an ability to move between the two. This is a fundamental change to how we do business. For example, I don't anticipate part-time Guardians maintaining mission-ready status in 24/7 employed-in-place operations. Instead, we will leverage their expertise in institutional and Service-retained functions like education, training, and test units or key staff positions.[209]

Further research will be needed to assess how this part of the U.S. Space Force personnel system affects recruiting and retention and to separate this from the effects of other factors, such as transferring out of one's original service and the relationship between the service and the National Guard's space-related personnel.

The existing consensus view of reserve service focuses on defining and planning for a minimum level of annual training, which makes that the norm for part-time service. By treating the reserves as an economy-of-force effort instead of a pool of talent that can be tapped into for a wide variety of tasks, this assumption puts a cap on the contributions that reservists can provide. Having limited options

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[207] Vincent Connelly, "Understanding and Explaining the Marginalization of Part-Time British Army Reservists," *Armed Forces & Society*, Vol. 47, No. 4, October 2021.

[208] In this section, we draw heavily from previous RAND work, including from Lisa M. Harrington, Stephen Dalzell, and Melanie A. Zaber, *Integrating Variable-Time Work Within a U.S. Space Force Component*, RAND Corporation, RR-A575-1, 2024; Albert A. Robbert and Lawrence M. Hanser, *Supporting the U.S. Space Force Single-Component Structure: Impediments for Members Transitioning Between Full-Time and Part-Time Participation*, RAND Corporation, RR-A1588-1, 2023.

[209] B. Chance Saltzman, "A Unified Model of Service," memorandum to all personnel, U.S. Space Force, March 27, 2024.

between full-time service and very reduced part-time duty, military forces underuse and risk losing anyone whose preferences for military duty range between 10 and 90 percent of potential workdays. As described in RAND's earlier work, various careers and situations could complement higher levels of military participation if the service can create systems for more-individualized work schedules and locations.[210] The U.S. Space Force, for instance, defines a comprehensive way to tear down the regular-reserve boundary. Because of the extensive legislative, policy, and financial structures regulating the U.S. military, this will take years to accomplish—a feat more easily achievable for other countries.

One frequent concern about such initiatives is the complexity of managing a military force outside the well-known categories. We suggest that this is exactly the kind of challenge that machine learning or other forms of AI could help military human resource management (HRM) systems overcome. Rather than having an already overworked commander logging activities, individual workers could feed their preferred days and hours of service into a program and have a computer optimize the team's duty schedule for the month. The commander could then set mission priorities and standards and review the output.

Some European militaries have already begun adapting their reserves to various responsibilities, thereby creating new sets of obligations and more flexibility for recruitment. France, for instance, saw the utility of distinguishing the citizens' reserve from the operational reserve to include people with unique skill sets; these individuals are expected to continue their civilian responsibilities to help bridge civilian-military ties.[211]

Reform Option 4: Adapt Fitness Standards to National Conditions

Military health and fitness standards serve two purposes: (1) ensure that an individual is physically able to perform assigned tasks and (2) minimize the short- and long-term burdens of caring for injured or ill individuals (to the degree that physical fitness can prevent or mitigate such conditions). Services set these standards, typically one standard for general recruiting and some specific standards for key specialties, where appropriate. While countries might modify these standards at the margins—such as when wartime requirements or recruiting shortfalls lead them to emphasize accessions quantity over individual quality—we see few instances of reconsidering the basic assumptions of the physical fitness model.

The first way a country could explore this option would be to test the hypothesis that modifying fitness standards to allow additional individuals to qualify for some specialties necessarily increases actual accessions. As mentioned in our discussion of the causes of the recruitment and retention crisis in foreign militaries, negative civilian perceptions of the military can impede recruitment. At least in some countries, emphasizing the high physical standards for military service (along with physically intense military training and activities) might counter these negative perceptions and encourage part of the population to consider serving. U. S. military recruiting appeared strong in FY 2025 at the same

[210] Stephen Dalzell, Molly Dunigan, Phillip Carter, Katherine Costello, Amy Grace Donohue, Brian Phillips, Michael Pollard, Susan A. Resetar, and Michael Shurkin, *Manpower Alternatives to Enhance Total Force Capabilities: Could New Forms of Reserve Service Help Alleviate Military Shortfalls?* RAND Corporation, RR-3055-OSD, 2019.

[211] French Government, "Become a Reservist," webpage, May 12, 2023, modified June 5, 2025.

time that the Trump administration promoted a warrior ethos and more-restrictive physical standards; this is a case study worth examining for generalizable insights.[212]

Part of considering any strategic change in how fitness and health are viewed is to examine how they are measured. For example, there is the question of how to balance between performance-based evaluation and body composition testing (e.g., height and weight measurement or more-technical body-fat computations). Individuals might easily pass the former but have challenges with the latter, so there might not be one-size-fits-all solutions.[213] Although body composition might be easier to measure and has some relevance to health, we suspect that it is more often used to promote a military appearance rather than task performance.

Many studies have been conducted over recent decades to measure the relationship between specific fitness tests and an individual's ability to perform common military tasks.[214] Our interpretation is that direct correlations are weak, which has added fuel to the discussion about the importance of doing such testing. One response to this dilemma is the UK's reforms to its physical fitness test since 2019, which made fitness levels more measurable for specific roles and tasks instead of assigning a pass or fail grade; this has led to mostly positive improvements in fitness since then.[215]

Once a system of measurement is determined, the question then becomes how best to use it to promote appropriate levels of fitness. High levels of fitness are required both for individuals to complete specific job tasks and for units to complete physically demanding collective tasks. For example, a platoon that might have the required tactical skills to assault an objective (e.g., marksmanship, navigation, maneuvering) but lacks the fitness to carry their equipment five miles to their attack position will never receive the opportunity to develop or demonstrate those other skills. These standards and the existing physical fitness requirements combine to limit the number of civilians who can begin military service, regardless of motivation and qualification.

The simplest way to modify physical standards—lower them across the board—would increase the number of eligible individuals and likely the number of recruits, but this might also require changes in the training system, readiness standards, compensation, and sustainment. A more nuanced alternative would be to develop a comprehensive plan for changing fitness requirements to maximize the positive effects by assessing the actual fitness needs for different specialties, units, locations, etc., and the resulting personnel requirements for the force. Headquarters could then determine whether

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[212] Konstantin Toropin, "Marines Say They Hit Recruiting Goals and Point to 'Unapologetic' Standards," Associated Press, September 29, 2025.

[213] Herrador-Colmenero, Fernández-Vicente, and Ruiz argue that "even when the duties are deployed, body composition is as important as the other components" (Manuel Herrador-Colmenero, Ginés Fernández-Vicente, and Jonatan R. Ruiz, "Assessment of Physical Fitness in Military and Security Forces: A Systematic Review," *European Journal of Human Movement*, Vol. 32, June 2014).

[214] Among the more-useful analyses on this topic are Veronique D. Hauschild, David W. DeGroot, Shane M. Hall, Tyson L. Grier, Karen D. Deaver, Keith G. Hauret, and Bruce H. Jones, "Fitness Tests and Occupational Tasks of Military Interest: A Systematic Review of Correlations," *Occupational & Environmental Medicine*, Vol. 74, No. 2, February 2017; Horst Stocker and Peter Leo, "Predicting Military Specific Performance from Common Fitness Tests," *Journal of Physical Education and Sport*, Vol. 20, No. 5, September 2020.

[215] George Allison, "Army Details New Gender-Free Physical Fitness Standards for Combat Roles," *UK Defence Journal*, September 24, 2018; George Allison, "Fitness of British Armed Forces Gradually Improves," *UK Defence Journal*, October 29, 2024b.

financial incentives are needed at the point of conscription to reward those who report ready and willing to test at higher fitness levels.

The long-term net effects of either raising or lowering overall fitness standards or adopting mission-tailored ones need much more research at both the national and cross-national levels. Those findings should then be brought into the larger policy question of how the quantity and quality of accessions need to align with each country's force design and strategic needs.

Reform Option 5: Expand the Conditions of Service

While Option 4 focused on reconsidering what partners expect from recruits when they enter service, with this option, we consider the possible effects of changing how individuals serve once they join. To date, this has largely been discussed in terms of how reservists train and serve, but this can be a model for innovative thinking around how full-time service members serve as well.

As mentioned earlier, expanding the continuum of service might increase the contributions from individuals actively serving in part-time positions. Looking now at other conditions of service, giving more flexibility to when, where, and how reservists and even regulars perform their training and military duties could have a secondary benefit of making such careers more feasible to individuals. The existing consensus assumes that the most convenient times for training are during summer holidays and weekends, with the occasional weeknight staff meeting. Although this might be true for the traditional target demographics of white- and blue-collar workers with full-time jobs and a family structure to support, such a schedule may not work for many individuals working in the service industry, doing shift work, or working away from home. Even if reservists are still limited to a fixed number of duty days a year, technology and flexible scheduling could allow more individuals with more-diverse backgrounds and skills to fit those duty days into their lives.[216]

How could this thinking be extended to full-time personnel? Many examples are already considered under the other options we presented. Allowing individuals to vary the amount of time that they are on duty during specific periods is the essence of the continuum-of-service solution, and finding ways for them to participate in spite of physical conditions falls under the fit-for-purpose solution. Expanding options for telework or making other modifications to one's expected place of duty might allow a partner nation to access qualified individuals who otherwise would not consider military service. As the population ages in Europe and East Asia, this might not be an option but a future necessity.

Reform Option 6: Expand the Recruitment of Noncitizens

Countries differ in how much they are willing to let noncitizens serve in their military forces and how aggressively they recruit the noncitizens that they do allow. In a world of increasing migration, the pool of excluded or untargeted people offers another way out of the personnel crisis. To be clear, we are not considering all the ways that noncitizens might be employed in military operations, including as volunteers in active foreign conflicts or as contractors for foreign firms and out-and-out

[216] Dalzell et al., 2019.

mercenaries;[217] we are only considering immigrants who might volunteer to serve in the military before becoming naturalized citizens. The FFL, although similar in intent, is unique in that it historically recruits from outside France and only offers residence and eventual French citizenship with a good conduct certificate on separating from the legion.[218] Although many might view expanded noncitizen recruiting as a way to employ immigrants with useful occupations or skills, most FFL recruits joined because of their lack of civilian job opportunities.[219]

Note that we are not only talking about global migration. There are 14 million Europeans living in a European country other than that of their citizenship—or 3.1 percent of the total EU population—with an even higher percentage among military-age cohorts that could be tapped for military recruitment. [220] Creating a framework to integrate former service members living in other NATO countries could take several forms, either as individuals as part of an institutional framework or as part of organized multinational reserve units, such as applying the Eurocorps model to a new NATO Reserve Corps.[221]

The United States has a long record of offering noncitizens an expedited path to citizenship through military service, although it is important to distinguish between the number of noncitizens serving and the number who apply for and receive citizenship. The number of noncitizens serving has remained high, with 8,000 noncitizens joining the U.S. military annually, but citizenship figures have dropped dramatically since the end of the post–9/11 Military Accessions Vital to National Interest program, from approximately 7,000 naturalizations in 2017 to approximately 4,000 in 2018.[222] However, the U.S. Citizenship and Immigration Services agency has recently shown that these figures are rebounding, increasing from 4,570 approvals in 2020 to 16,290 approvals in 2024.[223] Even in a military as large as that of the United States, this suggests that allowing noncitizens to serve makes a significant contribution to overall personnel levels.

This option might be even more difficult for the cases examined in East Asia. Japan, South Korea, and Taiwan all face restrictive legal, cultural, and economic challenges to increasing immigration, thereby posing additional obstacles for noncitizens wanting to serve in their armed forces.[224]

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[217] One instance is described in Nir Arielli, "In Search of Meaning: Foreign Volunteers in the Croatian Armed Forces, 1991–95," *Contemporary European History*, Vol. 21, No. 1, February 2012. Arielli and Collins also cowrote for and coedited *Transnational Soldiers: Foreign Military Enlistment in the Modern Era*, which describes four kinds of "transnational security arrangements," none of which includes the recruiting of resident noncitizens that we describe here (Nir Arielli and Bruce Collins, eds., *Transnational Soldiers: Foreign Military Enlistment in the Modern Era*, Palgrave Macmillan, 2013, p. 250).

[218] Christian Koller, "Recruitment Policies and Recruitment Experiences in the French Foreign Legion," in Nir Arielli and Bruce Collins, eds., *Transnational Soldiers: Foreign Military Enlistment in the Modern Era*, Palgrave Macmillan, 2013.

[219] Koller, 2013.

[220] Eurostat, "Migration and Asylum in Europe—2023 Edition," webpage, 2024b.

[221] Eurocorps, "A Force for the EU & NATO," webpage, undated; Stephen Dalzell and Paul Cormarie, "Better Than the Sum of Its Parts: Making NATO Reserves an Alliance Resource," Modern War Institute, June 24, 2024.

[222] Zachary R. New, "Ending Citizenship for Service in the Forever Wars," *Yale Law Journal*, Vol. 129, February 11, 2020.

[223] U.S. Citizenship and Immigration Services, "Military Naturalization Statistics," webpage, last updated November 6, 2024.

[224] Erin Aeran Chung, "Migration Politics in East Asia: Comparing Japan, South Korea, and Taiwan," Federal Agency for Civic Education (Germany), February 5, 2024.

Reform Option 7: Increase Privatization and Civilianization of Security Missions

Private companies and civilians have always played key roles in sustainment, provision, and some essential service support tasks. Particularly in service support specialties, contracted civilians have overlapped with or even replaced the roles of military personnel. Although civilian contractors have, at times, found themselves in harm's way, military convention has generally considered their roles to be for permissive environments only. The U.S. and NATO militaries stretched that conventional wisdom over the past quarter century because the conflicts in Iraq and Afghanistan saw an increased use of contractors for various roles in semi-permissive or even nonpermissive combat environments. In fact, at certain points, contractor casualties outnumbered the casualties of uniformed military personnel.[225]

Militaries today have uniformed personnel in many occupational specialties with clear civilian counterparts; their basic skills are almost indistinguishable, albeit practiced in very different circumstances. Such specialties include musicians, food service workers, mechanics, truck drivers, information technology specialists, health specialists, lawyers, and clergy. As a result, modern militaries generally contain far more personnel in support than in combat arms specialties: Only 29 percent of the enlisted personnel in the U.S. Army are in combat arms.[226] An ongoing question is whether some of these positions could be filled by civilians without negatively affecting operational readiness or personnel management.

Although many policy analysts and military experts have expressed concerns about an overreliance on contractors or government civilians involved in combat zones, the increasing technical requirements of new technology for modernized armed forces is adding pressure to turn to civilian contractors who have the knowledge and skills required to sustain and operate technologically complex systems.[227] Training uniformed service members in complex niche technologies only further adds to the costs associated with recruiting, training, and retention.

Policymakers, then, could consider ways to reduce the uniformed force structure in key service support, combat support, and even combat arms positions through the selective increased use of contracted and government civilians. However, such "civilianization" might be controversial and would likely require three fundamental considerations: cost savings, the recruitable population, and legal obligations to serve in combat.

First, any plan to replace military personnel with contractors must be less expensive in the aggregate than military personnel costs. The savings involved could be used to further incentivize the recruitment and retention of uniformed military personnel in specialties that are harder to privatize, such as combat arms. Second, these contractors must not be too intrusive into the populations with a high propensity for military service, which would only serve to decrease recruits and further exacerbate economic and demographic pressures. Third, laws would need to change to ensure that under certain conditions, nonmilitary personnel under contract to the government would still be obligated to

[225] Heidi M. Peters, *Department of Defense Contractor and Troop Levels in Afghanistan and Iraq: 2007–2020*, Congressional Research Service, R44116, February 22, 2021.

[226] U.S. Bureau of Labor Statistics, "Military Careers," webpage, last modified April 18, 2025.

[227] Steven Chetcuti, "The Use of Military Contractors and the Culture of Warfighting," War Room, May 30, 2024.

perform their duties in conflict. Even with emergency legal provisions, such terms could be a strong disincentive and create similar recruitment and retention challenges for private companies.

Reform Option 8: Increase the Free Market for Internal Labor

One characteristic of most postmodern militaries has been the bureaucratization of the labor market. Standard wage scales apply to everyone at a certain rank, benefits are largely standardized, and promotion opportunities use such criteria as total years of service and time in the existing rank or grade. These standards are not always as rigid as they could be, with some specialties enjoying bonuses for enlistment, reenlistment, completion of a contract, and special skills (e.g., language skills, hazardous duties) as part of their salaries. Standards are subject to regular changes depending on shortages in particular specialties or other factors, as noted for the Japanese SDF earlier. In other countries, as noted for European countries in Chapter 2, these changes can be rarer and more rigid, necessitating important domestic reforms. These structures are an obstacle for what we propose in this section.

Does pay matter? One survey, conducted as part of a study of recruiting incentives that we will discuss later in this section, found that, among a population with a fairly positive impression of military life, "attractive pay level" was the most desirable characteristic for a potential job *and* the third least-likely factor they expect to be satisfied with by joining the military.[228]

One solution would be to give the human resources system managers more freedom to vary all these terms to encourage recruiting, retention, and advancement of hard-to-fill specialties. As with most solutions, there are various ways to implement such an idea. For example, RAND research on potential U.S. Army recruits identified a set of bonus levels and nonbonus incentives, including the choice of job to serve in, the choice of an overseas area or a region of the United States to serve in, a college loan repayment, an education bonus for having completed at least two years of college, and a guaranteed job interview with a major company after leaving the army. These were then combined into 19 different packages, with the respondents selecting from the packages in sets of three. As one might expect, the relative value of each option varied depending on the demographics of the individuals, so the cheapest and most effective policy would be one that allowed the recruit to design their optimum package within some set of constraints. To be clear, offering more choices in these recruiting and retention incentives would not itself be a radical change. However, for a country to make these choices a significant part of its military personnel system and not only an attempt to improve manning on the margins would be a significant change.

A truly radical reform would be to target the structure of actual salaries of service members. Three decades ago, Warner and Asch noted two structural problems with the U.S. military pay system: the lack of performance-based raises within pay grades (i.e., between promotions) and the way pay calculations using time-in-service standards blunts the advantage of early promotions.[229] They recommended exploring changes to both structural problems to incentivize high performance. To our

[228] James Hosek and Bruce R. Orvis, *Army Enlistment Options Optimizer: Research Approach, Findings, and Implications*, RAND Corporation, RR-A2214-1, 2023, pp. 12–14.

[229] John T. Warner and Beth Asch, "The Economics of Military Manpower," in Keith Hartley and Todd Sandler, eds., *Handbook of Defense Economics*: Vol. 1, Elsevier, 1995.

knowledge, neither structural problem has been seriously considered by policymakers, and this is a common deficiency in partners' and allies' systems as well.[230] In their other work, the same authors argue that because the U.S. military allows few lateral accessions (e.g., an experienced civilian construction worker would still enter the engineer corps as a private or lieutenant), many other policies are implemented to ensure that the necessary flow up the ranks is sustained.[231]

From Radical Options to a Research Agenda

In this chapter, we provided suggestions as the launch of a policy development process. If we are correct in positing that these military personnel problems are systemic, any solutions likely require changes in the enduring features of the system. Although we report that military personnel problems have similar causes and manifestations in the largely industrialized, largely democratic countries of Europe and East Asia, each country will require unique systemic changes to reverse its specific personnel crises. Therefore, we are not recommending that countries adopt any or all eight options; instead, they should explore and decide how to apply each option. In our concluding chapter, we recommend immediate steps that these countries can take to better understand their challenges and to formulate effective responses, individually and collectively.

[230] Warner and Asch, 1995, p. 384.

[231] Beth J. Asch and John T. Warner, "A Theory of Compensation and Personnel Policy in Hierarchical Organizations with Application to the United States Military," *Journal of Labor Economics*, Vol. 19, No. 3, July 2001.

Chapter 5

Recommendations

In this concluding chapter, we provide a number of policy recommendations and suggestions for future research.

Policy Recommendations

Although we presented options to dramatically change the existing paradigm, those potential solutions are not long-term policy recommendations; rather, they are suggestions on how to act today to create policy options in the future. Using our overarching findings, we make some recommendations for the United States and its allies to collectively consider to tackle the military personnel challenge.

Promote Dialogue on Military Personnel

As of 2025, the NATO Committee on Reserves (formerly the National Reserve Forces Committee) and the Interallied Confederation of Reserve Officers support the NATO Military Committee's work on converging views on military personnel, particularly policies pertaining to military reserves.[232] These organizations exchange best practices and inform better understandings of mutual challenges for their armed forces. However, reserve policy is often seen as a national matter and is rarely front and center in the Alliance's policy discussions.

However, policies can still shift from national concern to an Alliance-level discussion. Personnel challenges have only recently been discussed or brought to the forefront of military planning in Europe, especially in public, despite the global nature of the problem. To overcome personnel challenges, a dialogue between security partners must exist. It must include a diplomatic or official channel that is supported by specialists who can help foster progress around the discussions. As of 2025, there is a Track 2 dialogue between scholars and experts regarding the retention of volunteers across the NATO space.[233] By including officials from both NATO and East Asian partners to transform this into a Track 1.5 dialogue, policymakers can make tangible policy improvements and increase the transparency of what this challenge represents. In fact, beyond solving the problem itself, these discussions would allow countries to bring back the soldier element in discussions relevant to deterrence, to better understand the personnel challenge, and to prepare and design improved policies for stronger allied defense.

[232] NATO, "Reserve Forces," last updated March 7, 2024.

[233] Expert on Canadian defense, interview with the authors, February 7, 2025.

Build a Recruitment and Retention Center of Excellence

Centers of excellence have proliferated in recent years, with a focus on operational missions or specific capabilities. Institutional capabilities—such as manning the force—are considered adequately handled by each country's staff specialists or dedicated structure.[234] Although NATO sometimes convenes academic and military conferences or working groups on specific questions, the events' short durations might limit their ability to generate and execute a research agenda that could effectively develop actionable reforms. We recommend that policymakers consider building a center of excellence focused specifically on addressing recruitment and retention challenges for the short term and the long term.

Apply Machine Learning and Artificial Intelligence to Personnel Management

We previously discussed how technology could reduce personnel needs, thereby mitigating the decline in available personnel. Separate from leaner forces, technology could also be leveraged to make HRM itself more effective. Many of the HRM system's institutional defaults date from bureaucratic processes of a preautomation world. Rigid timetables for reserve training, limited variation in terms of service, and strict physical and health standards are all easier to understand in a paper-driven system with little real-time information flow, thereby encouraging the micromanagement of personnel decisions. The eight reform options could thus take advantage of advanced computing capacities. Entire cohorts can be compared across dozens of skills and preferences to generate the most efficient slate of assignments, instead of having one assignment officer consider limited options for a single service member. Scheduling variable-time personnel in a single-component personnel system could transform from being a complex, rarely optimized spreadsheet to a fluid, evolving solution maintained by machine learning, which is then validated by the people in the organization. This system could be shared with partner nations, which could then improve on for their specific needs to everyone's benefit.

Directions for Future Research

In each discussion of our reform options, we highlighted areas for research that would help set the stage for eventual policy debates when the need for such reforms becomes evident. We start this section by recapping some of these specific research ideas:

- What policies appear to encourage former conscripts and short-term military volunteers to remain active members of reserve forces?
- What are the organizational effects of reducing practices that perpetuate the officer corps as a distinct class?
- What technical solutions are available to introduce a robust continuum of service?

[234] See, for example, the list of NATO's 30 centers of excellence (NATO, "Centres of Excellence," last updated January 15, 2025a).

- What is the net effect of military investments in postaccession health and fitness interventions that are designed to expand the pool of potential recruits, decrease attrition, and increase retention?
- Under what conditions will noncitizens volunteer for military service in their host countries? Are these conditions different for those who have already served in their home countries and who could join their host country's reserve forces?
- What are the long-term effects of variations in the pay grade and time-in-service aspects of military pay systems? How do these interact with other potential reforms, such as lateral entry options?

Although each of the reform options presented in this report could have its own research agenda, there are several crosscutting topics to explore that could enable multiple options and highlight areas for policy-oriented learning:

- **Interoperability and influence of human resources:** If a country's human resource strategists change who can join the armed forces and who is retained to fill formations, the change in the quality of personnel might change what can be done with the force. More research is needed to identify what these effects are and how the doctrine and structure of these forces need to change to maximize the effectiveness of the people they employ.
- **Strategic impact of personnel shortages:** There is ample space for more research on the strategic effects of personnel shortages. Although we explored possible impacts in this report, some effects are more context-specific because of the unique strategic environment or the services involved. Because of the land environment in Europe, the quantity of military personnel is much more relevant than the sophistication of equipment, as is the case for the sea-focused environment in East Asia. Additionally, the services and their varying military personnel trends have important outcomes for the theaters in which they operate: The armies are more relevant in Europe, and the navies and air forces are more relevant in East Asia.
- **Innovation and leaner forces:** Besides AI technologies, there are other ways technologies can help the force adapt to reduced personnel. As we mentioned previously, some governments, particularly in East Asia, are increasingly considering the role of technology as an alternative to mass, including such technologies as AI, computer-assisted fire management, and drones. Although we are still far from robot soldiers, the automation of kinetic-capable technologies could theoretically lead to the preservation of some personnel for less intensive roles in the armed forces. Further research could explore these kinetic-capable technologies.
- **Conscription's impact on retention:** A conscripted force is not without challenges for the volunteer components in the armed services. Some experts and observers have mentioned a recurring challenge to retain recently trained troops, resulting in lost investment and a lost opportunity to build mass. As a result, further research could evaluate how to best invest in European and East Asian conscription systems that rely on a rotating conscript force that does not waste the potential of its young recruits.

Appendix

Key Terms Used in This Report

Many of the terms used in this report have multiple meanings depending on the context and sometimes can overlap in conventional and international usage. We provide here a list of key terms and definitions.

Key Terms Used in This Report

Accession: This term refers to an individual's entry into military service. When speaking of broad functions, we usually use this term because it includes both those who entered by free choice (recruits, enlistees, and volunteers) and those who entered by requirement (draftees and conscripts). The following two terms elaborate on these two distinct groups.

- *Volunteer*: This term describes how a person entered military service (not a conscript) or that they are actively serving voluntarily (even if they began as a conscript).
- *Conscription*: This term means involuntary military service that is long enough for the person to be capable of performing adequately in wartime. We distinguish this from *mandatory service*, which can include duty in other public institutions, and *obligatory exposure*, our term for shorter periods of screening, physical fitness, and other trainings.

Retention: This term refers to the accumulated choices of service members to remain in their existing category of service. This is generally measured at specific career points when a choice is actively required, such as when an individual either reenlists or separates from the service.

Attrition: This term is the opposite of retention, up to a point. This includes those who choose to leave service short of retirement and those the service decides should not continue serving (e.g., those who fail to meet physical standards or violate military law); these groups can collectively be termed *separations*. Attrition also includes *retirement*, when the departing individual has qualified for a military pension or other benefits.

Requirement: This term describes the number of personnel needed to fill the structure demanded by doctrine and existing war plans.

End strength authorization: This term describes the number of personnel the military is funding or is legally authorized to have in uniform. (There might be some allowable variance, such as plus or minus some percent.)

End strength: This term describes the number of individuals in uniform at the end of the FY.

Professional: We generally avoid using this term because it can mean many different things, including a nonconscript or a member of a self-regulating occupation that provides a social good in a defined area of expertise.

Abbreviations

AI	artificial intelligence
ASDF	Air Self-Defense Force (Japan)
COVID-19	coronavirus disease 2019
EU	European Union
EUROMIL	European Organisation of Military Associations and Trade Unions
FFL	French Foreign Legion
FY	fiscal year
GSDF	Ground Self-Defense Forces (Japan)
HIV	human immunodeficiency virus
HRM	human resource management
MSDF	Maritime Self-Defense Force (Japan)
NATO	North Atlantic Treaty Organization
NCO	noncommissioned officer
SDF	Self-Defense Forces (Japan)
UK	United Kingdom

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To support conventions for alphabetizing, sources in Chinese, Japanese, and Korean are introduced with and organized according to their English translations. The authors of this report provided the translations of bibliographic details included in this report. The original rendering in Chinese, Japanese, and Korean appears in brackets after the English translation.

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