

13

The All-Volunteer Force at Fifty

Productivity, Peace, and (Unmet) Potential

Tim Kane

American military manpower is remarkably successful as we mark the fifty-year anniversary of the all-volunteer force (AVF). American troops have been notably productive in waging warfare and securing peace, meaning the results on both fronts are impressive despite the bottom-line personnel costs growing increasingly expensive. Although the motivation to end conscription in 1973—properly understood as coerced labor by Milton Friedman, Martin Anderson, and other economists who were affiliated with the Hoover Institution at Stanford University—was driven more by social and political considerations of justice than budgets or strategy, the timing was fortuitous for the advent of the technological revolution in military affairs. An example of the relentless technological arms race is Ukrainian vice prime minister Mykhailo Fedorov’s recent remark, “In the last two weeks, we have been convinced once again the wars of the future will be about maximum drones and minimal humans.”¹ An overstatement, to be sure, but today even infantry soldiers are required to handle sophisticated technology, forcing Pentagon leaders to optimize military talent in what promises to be a new era of budget deficits and budget constraints.

This chapter explores the cost of military personnel and challenges us to rethink policy and strategy in light of a broader perspective that considers benefits. My focus is on the active force, not the millions of Americans serving in the National Guard and reserves, nor Department of Defense (DoD) civilians and military contractors, although they are shaped by similar

The views expressed in this chapter are solely those of the individual author and do not necessarily reflect the views of any organization with which they are, or have been, affiliated.

regulations. The increasing use of contractors should be kept in mind as a response to rigid employment regulations that bind the utilization of active and reserve personnel.

A cost-benefit analysis of the volunteer force should consider the economic perspective, not just accounting budgets in dollars and cents. Marines, airmen, sailors, and soldiers are not interchangeable parts with fixed costs and identical utility; rather, each is a uniquely talented individual. Quality matters. Utilization matters, too.²

The readiness goal for any talent management system should be to optimize talent quality. That principle seems obvious but is surprisingly at odds with much of the design of personnel policies in large organizations everywhere. Large organizations routinely build their personnel operations, as the saying goes, fighting the last war. That seems doubly true for the Pentagon, which still uses pay tables and an “up-or-out mentality” that were cutting edge with General Dwight Eisenhower’s recommendations in the 1940s.

As of October 31, 2022, 1.3 million Americans were serving on active duty in the five branches of the US military.³ That compares to 3.5 million service members in the early 1950s and late 1960s, or roughly one-third of the troop strength at the peak of the Cold War. When considered as a percentage of the US population over time, the military is currently one-sixth of that size, having decreased from 2.2 percent of the national population during the Korean War to 0.4 percent now (see fig. 13.1). Yet many would argue that the force is more lethal now than ever before. This partly explains why even though the headcount has declined by more than half since the 1950s, the total budgetary cost of personnel in inflation-adjusted dollars has more than doubled.⁴

In addition to providing an overview of the issue, I will put forward three main arguments in this paper:

1. Recurring problems with recruitment and retention are real but sensationalized challenges whose deep causes are structural. Laws and rules that shape military compensation hamstringing the ability of military leaders to manage talent.
2. Core personnel operations were not reformed when the draft expired, so the transition away from a citizen (draft) army to a professional (volunteer) army was never fully implemented. Policy makers should reconsider the full set of Gates Commission recommendations, particularly professional compensation structures.⁵

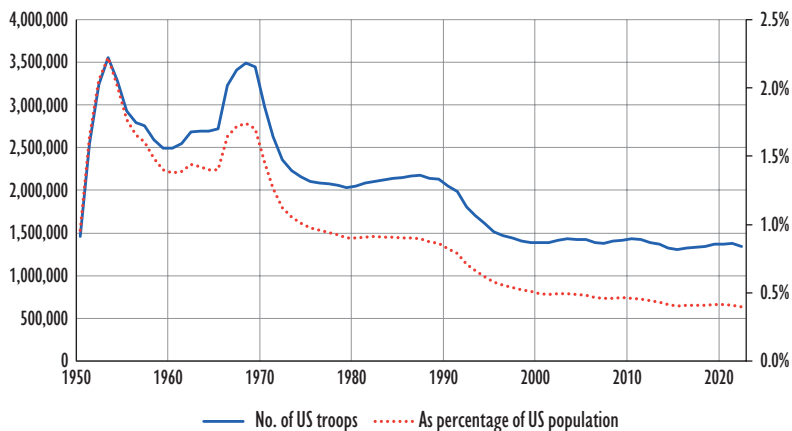


Figure 13.1 US Active-Duty Troops, 1950–2022

Source: DoD data compiled by the author. See Tim Kane, “The Decline of American Engagement: Patterns in US Troop Deployments,” Hoover Institution Economics Working Paper 16101, January 11, 2016.

- Experience has proved the volunteer force to be ready, resilient, extraordinarily lethal in war, and (perhaps most beneficially) an overwhelming deterrent to war.

Structural Roots of the Recruiting “Crisis”

Recruiting for all military branches in FY2022 was difficult, arguably the worst year since 1973 and only the fourth that the military has missed its recruiting goals. The bottom line is that the army fell short by fifteen thousand recruits in 2022—25 percent of its annual goal—then subsequently cut its projection for the overall force size by ten thousand soldiers.

These difficulties are similar to those of past cycles, with a strong correlation to the civilian unemployment rate. The AVF competes against other employers in the private sector, so recruiting is always more challenging when the labor market is tight. As I write, the current (December 2022) US unemployment rate is at a fifty-year low of 3.5 percent. To emphasize that point, the *only* time during the AVF era that the US unemployment rate fell below 4 percent was in the past four years, and it was below 4 percent during eleven of twelve months of 2022.⁶

The lingering, unpredictable social effects of the COVID-19 pandemic are another headwind. Until a recent policy shift by Congress, the DoD was required to impose a vaccine mandate that purportedly suppressed recruiting

in some regions.⁷ The policy change means that recruiting should get somewhat easier, but risk aversion among the young could be deeper and longer-lasting than the mandate.

Although the FY2022 recruiting shortfall has been heavily covered in the mainstream press, a unique and somewhat ironic factor is that it was the first year of peace after two full decades of fighting in the Middle East, specifically large and lengthy troop deployments to Iraq and Afghanistan. The increased interest in military service, and the increased quality of recruits, after the 9/11 attacks is a remarkable and underreported phenomenon. A popular critique is that the army and marines rely on recruits from poorer neighborhoods. In truth, multiple reviews of Pentagon enlistee data in the darkest years of the Iraq War found that the percentage of recruits from the poorest neighborhoods (representing one-fifth of the US population) declined from 18 percent in 1999 to 15 percent in 2003 and 14 percent in 2004 and 2005. However, recruit quality improved, a powerful vindication of the volunteer force and a generation of young Americans.⁸

The challenge of AVF recruiting is that the DoD maintains high-quality standards for enlistees. Before framing this as a problem to be solved, consider the benefits of having high-quality standards. As Army Secretary Christine Wormuth recently said, “We can develop all of the most high-tech new weapons systems like we are working on right now, but if we don’t have the kinds of talented, motivated individuals to use those weapons systems, we won’t be able to do what we need to do.”⁹

In terms of literacy, raw intelligence, strength, physical resilience, and more, young enlistees in the American military do not “look like America” because they are measurably better. In terms of racial and religious demographics, both enlistees and officers are a healthy reflection of the national population, but the goal should be to have a military workforce that is not just average but measurably as smart, strong, and honorable as possible.

If anything, the problem is that measurements of troop quality are sparse. All branches require new recruits to score above certain thresholds on the Armed Forces Qualification Test (AFQT). It must be noted that AFQT scores are relative to the current crop of applicants, not absolute, resulting in lower relative scores for all during years when the applicant pool is thin. Moving to absolute metrics for cognitive skills and aptitudes would be useful for assessing recruit quality and longitudinal assessments of retention quality over time.

High standards mean that 70 percent of the thirty-three million Americans between the ages of seventeen and twenty-four cannot meet the minimum enlistment standards, implying a pool of 9.9 million potential recruits. Yet according to Stefan Borg, writing in *Parameters*, only 136,000 of that pool express a willingness to serve—a mere 1.5 percent of the eligible pool.¹⁰ Fitness in terms of education, obesity, general health, and criminal background is a strong constraint but not nearly as strong as willingness. That challenge is routinely overcome with personal outreach and bold advertising campaigns. Aversion to the unknown can only be overcome by exposure of young men and women to American service members, especially when surveys show that 50 percent of potential recruits “know little” about military service, and few have any personal or familial contact. Credit goes to the US Army for experimenting with new pre-basic training pilot programs. Much more needs to be done.

Overview of Personnel Budget Costs

Personnel costs account for one of every five defense dollars and even more when accounting for deferred costs associated with veterans' health care. According to the Congressional Budget Office (CBO), military pay represents 55 percent of total compensation for the average officer and 53 percent for the average enlisted service member. Here, I use the definition of “pay” as regular military compensation that includes base/basic pay, allowances for housing and food, and the tax advantage of various allowances. Health care for the active force represents another 9 to 14 percent of costs. The remainder is deferred costs, with Veterans Affairs (VA) benefits, retiree health care, and retirement pensions. The efficiency of VA and health-care expenditures is beyond the scope of this paper, and I will leave it there because they have negligible impact on personnel incentives for the active force.¹¹

In contrast, basic pay is disbursed using a rigid formula based on two factors: the number of years in service and rank. However, an individual's rank is based almost entirely on years in service (following rigid promotion timetables). The net effect is that 99 percent of military pay is based on seniority and less than 1 percent on skill, merit, or performance. Special pays exist for hazardous duty and some sixty other categories, though none are based on performance. This stands in sharp contrast to billions of dollars allocated to bonuses for retention each year, which are universal rather than individually targeted. In a 2015 survey I conducted with *Military Times*, which involved a

forty-point assessment of leadership and talent practices, the lowest mark by far was on the metric “Bonuses are used to reward good work.”¹²

Paying for performance remains a major area for improvement, given that the law allows great leeway in the use of assignment incentive pay and other channels to compensate talent directly. One option would involve legislators decoupling military pay raises from the basic pay tables or going further by requiring the services to disburse pay raises as bonuses for merit, performance, and (applied) skills.

Pay Premium

In 2002, the Ninth Quadrennial Review of Military Compensation (QRMC) concluded, “Pay at around the 70th percentile of comparably educated civilians has been necessary to enable the military to recruit and retain the quantity and quality of personnel it requires.” What does it mean that pay was around the 70th percentile? Higher than average pay represents a premium, which labor economists explain as compensation for harder, hazardous work. A similar premium is paid to comparably educated workforces in law enforcement and deep-sea fishing, as just two examples. Other explanatory factors for the military pay premium include the higher levels of health and fitness demanded of uniformed service members.

The military pay premium weighs heavily on the Pentagon budget, especially if it increases. At the time of the 2012 QRMC report, pay rose to the 90th percentile (education controlled) for enlisted members and the 83rd percentile for officers. The most recent QRMC, published in 2020, found that the high premium had continued: “For the first twenty years of service, [pay] was at the 85th percentile of the civilian wage distribution for enlisted personnel and at the 77th percentile for officers.”¹³

The pay premium for military labor could be reduced if the quality of life of service members were better. Surveys routinely find that troops do not value many military fringe benefits, whereas they report frustration with rigid personnel policies such as frequent job rotations (especially the impact of cross-state moves on spouses and children). The bottom line is that the unit budgetary cost for labor has risen in recent decades, which could be alleviated by personnel reforms such as fewer permanent-change-of-station (PCS) moves and more personal control over careers (including more fluidity to exit and reenter the ranks).

Reinstating a coercive draft could handily help the services upsize or downsize quantitatively, but this would come with a degradation of quality. The

draft is probably a nonstarter in the context of potential conflicts involving advanced weapons systems. Future DoD leaders need to consider the options to refine policies governing the volunteer force that will *optimize* talent.

Citizen to Professional

On January 27, 1973, Secretary of Defense Melvin Laird declared, “I wish to inform you that the armed forces henceforth will depend exclusively on volunteer soldiers, sailors, airmen, and marines. The use of the draft has ended.”¹⁴ Legal authorization for the draft was already set to expire later that summer.

While the all-volunteer force deserves praise and celebration on its fiftieth anniversary, it must be remembered that the transition from a citizen army to a professional army was instituted by letting the clock run out on the draft law, not by design. A dozen reforms, large and small, were recommended by the Gates Commission in 1970, but none were implemented other than ending the draft. The transition to a fully volunteer force remains incomplete as a consequence.

To be sure, there have been significant reforms since. The Defense Officer Personnel Management Act (DOPMA) in 1980 created uniform regulations governing promotions with years-of-service zones for each rank. The Goldwater-Nichols Act in 1986 required joint duty assignments and joint military education for senior officer promotions. More recently, the National Defense Authorization Act (NDAA) of 2016 created a blended retirement system—a small but significant revision to the defined benefit pension. That was followed a year later by numerous personnel reforms in the 2017 NDAA, including service autonomy over promotions, even allowing for lateral entry of junior officers (e.g., commissioning an individual as a captain or major).

A summary of recommendations made by the Gates Commission includes the following:¹⁵

- End conscription and establish an all-volunteer force.
- Increase overall base pay.
- Add supplemental pay and compensation flexibility.
- Transition to a salary system to replace in-kind allowances.
- Eliminate enlistment terms with open-term employment.
- Offer a choice of occupation upon enlistment and during a career.
- Pursue lateral hiring of civilian personnel into higher ranks.
- Reform military retirement (e.g., lower vesting from twenty years to five).

The budgetary costs of failing to implement some of these reforms (e.g., widespread lateral entry) are negligible, but the economic costs can be high. As the late George Shultz noted, “The ironic thing about the all-volunteer force is that those who enter the armed services volunteer only once—when they join. After joining the armed forces, their careers become subject to a variety of regulations, regardless of their own preferences.”¹⁶ In a nutshell, the DoD’s current system spends millions training individuals to reach peak productivity at twenty years in uniform, then another \$1 million (net present value retirement pension) incentivizing them to leave immediately. Recent secretaries of defense have expressed frustration with the “bureaucratic concrete” in the personnel system as one of the greatest challenges the military must overcome to win wars of the future. The 2017 NDAA reforms were animated by Senator John McCain’s argument in 2015 that “too often, our military is losing and misusing talent because of an archaic military personnel system. Promotions are handed out according to predictable schedules with only secondary consideration of merit.”¹⁷

Recall that talent management aims to increase the numerator of talent over the denominator of expense, i.e., to maximize productivity. In that light, policies that lead to a marginal reduction of talent—bleeding talent through external loss or internal misallocation—reduce the numerator and, therefore, net productivity. Let’s call this “less lethality for the buck.”

Lateral entry has been authorized as of the 2017 NDAA but remains very sparsely implemented. Choice of occupation has been more widely applied among the services in the past five years, with the creation of job assignment marketplaces online that hold tremendous promise (more career control is the top desire for service members who consider leaving the ranks). Yet a serious impediment to all this is the rigid retirement structure. Consider the puzzle of trying to attract a world-class cyber expert with ten years of civilian experience to an assignment as a US Air Force major—how does her military retirement work? It doesn’t. Or how does the retirement system handle a sailor who leaves for multiple opportunities, gains invaluable logistics expertise, and then wants to reenlist?

The Pentagon’s defined benefit (DB) pension, with its 100 percent vesting after twenty full years, is coercive to such an extreme that it would be illegal in the private sector. Federal law governing all public and private pensions falls under US Code Title 26, section 411, which mandates that DB pensions partially vest one-fifth of the funds after three years or less; all funds at seven years or less.¹⁸ These rules were codified because longer vesting schedules are

coercive. The US military pension, easily five times more coercive than allowable by law, is not worthy of a professional force.

As a budgetary matter, the Pentagon pension is growing exponentially more expensive. Annual outlays for military pensions represent one of every ten defense dollars. The liabilities of the program are nearly \$2 trillion (roughly one-tenth the size of the US GDP).¹⁹

As the Gates Commission noted in 1970, all-or-nothing vesting at twenty years has “a number of undesirable effects,” one being that it has little to no value in recruiting. The commission noted two other perverse incentives in the retirement structure, the first being that soldiers “cannot afford to separate from the service” beyond their tenth year, and second that it “induces many individuals to retire as soon as they are eligible.” Payments from the pension begin immediately upon retirement, instead of some fixed age. In short, too many personnel stay in uniform before the twenty-year cliff, and too few stay after.

The distortion is visible in continuation rates, with data showing a plateau of continuation from the twelfth year of service and a mass exodus immediately after the twentieth year (see fig. 13.2).²⁰

My analysis of retirement data showed that all branches of the US military lost more than half of active service members at the twenty-year point.²¹ The destructive impact on productivity is difficult to overstate. Consider the prospect of any other organization losing half of its employees with twenty years of experience—age thirty-eight for noncommissioned officers, age forty-two for officers—every year, and how daunting that would be.

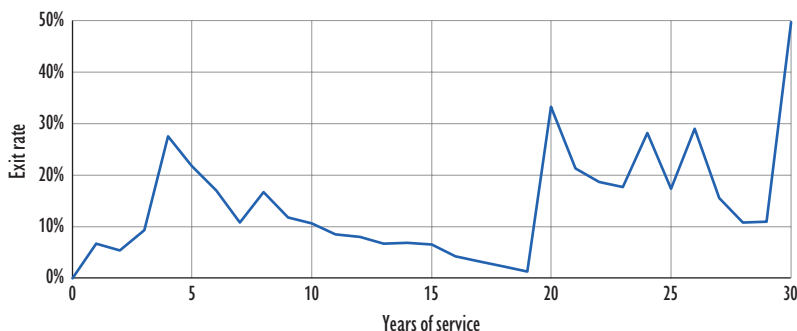


Figure 13.2 Exit Rate for US Military Enlisted, by Years of Service

Source: “Approaches to Changing Military Compensation,” Congressional Budget Office publication no. 55648, January 2020.

There are few, if any, defenders of the military retirement structure. In 1978, the US Government Accountability Office was calling for an end to the twenty-year cliff in a clearly titled report, “The 20-Year Military Retirement System Needs Reform”:

Twenty-year retirement, in conjunction with present personnel management policies, is an inefficient means of attracting new members, causes the services to retain more members than are needed up to the 20-year point, provides too strong an incentive for experienced personnel to leave after serving 20 years, and makes it impossible for the vast majority of members to serve full careers.²²

In 2006, the Defense Advisory Committee on Military Compensation took aim at the status quo pension system as inefficient, inflexible, and inequitable. In 2011, the Defense Business Board issued a report that proposed replacing the defined benefit entirely with a savings plan.

The introduction of the Blended Retirement System (BRS) in 2018 was heralded as a major reform because it added a Thrift Savings Plan (TSP) with optional matching, like a private-sector 401(k) plan. The reality is that BRS did not fundamentally change the twenty-year cliff pension, which still involves 80 percent of the dollars (i.e., the pension payment now has a base-pay-times-years-of-service multiplier of 0.20 instead of 0.25) but *no modification in the timing of payments*. Unless the perverse incentives of the pension’s cliff vesting at twenty years are reformed, it will be difficult to manage talent.

The introduction of the BRS did open the door for future reform options. One option is to allow opting out of the defined benefit entirely in exchange for a TSP that is larger than the current maximum match of 5 percent of base pay. A second option is to reform when and how DB vesting happens. A third option is to revise the DB payout timing to a fixed age. Until these retirement reforms are made, lateral entry and service term fluidity will be barely usable tools for talent managers.

Global US Troop Deployments

In this section, we turn to the issue of benefits that flow from US military manpower, of which two are fundamental. The mission of military personnel is to win wars, and lethality is the measure of productivity in this unique realm. Perhaps just as important as war making is peacemaking, with lethality as critical a factor for its maintenance. Potential enemies become deterred enemies when US troops are maximally lethal. President George Washington

said in his fifth annual address to Congress in 1793, "If we desire to secure peace . . . it must be known, that we are at all times ready for War."²³

In this final section of the paper, I will make the case that the deployment of American troops abroad has been a singularly unique factor in keeping the peace. It has been widely noted that ISIS emerged in Iraq only after US forces were completely removed in 2011, that Russia attacked Kyiv only after the United States closed its embassy and withdrew the last marines in 2022, and that North Korea began significant attacks across the 38th parallel only weeks after all US combat forces were withdrawn in June 1949 (and invaded less than a year later).

After World War II, the United States stationed combat troops in permanent bases throughout Japan and Germany during the immediate postwar occupation period. US forces were also hosted by dozens of allied countries, including the United Kingdom, France, the Philippines, South Korea, and even China. Large drawdowns were swiftly reversed in the early 1950s, when the Cold War intensified. I've maintained a dataset of global deployments of US troops, using annual Pentagon reports, that shows permanent deployments across 206 countries and territories since 1950.

The level of deployed troops stationed permanently on European soil tripled during the 1950s as a deterrent to a Soviet invasion. Any attack on allied hosts would be a *de facto* attack on America. In West Germany alone, there were 250,000 permanent US "boots on the ground" until 1990. And the distribution of troops among NATO allies was wide, covering some twenty-three countries in Western Europe. There were 5,000 US troops in Iceland and 2,000 apiece in Denmark and Finland. Now the question is whether to add new bases in Eastern Europe beyond Poland. But during the 1990s, the number of US forces in Europe was reduced by more than half. Today, with fewer than 70,000 boots on European ground, American engagement is closer to one-fifth of its Cold War presence.

Did this drawdown yield a peace dividend that helped lower national deficits and allow greater investments in new weapons systems? Too much of the defense budget conversation frames personnel as a trade-off for modernization, as per a recent Congressional Research Service report: "Some have raised concerns about the impact of personnel costs on the overall defense budget, arguing that they decrease the amount of funds available for modernizing equipment and sustaining readiness."²⁴ This might be a false choice.

Today, there are fewer deployed US troops based overseas relative to the world population than at any time since 1950.²⁵ Yet annual US budget deficits have risen so high that the baseline deficit now exceeds \$1 trillion (or

5 percent of GDP). History will note that the peace dividend was not so much a cost saving thanks to retrenchment. Rather, it was (and is) decades of prosperity under the American security umbrella. Since 1945, no allied country hosting a significant number of American military personnel has been invaded.

The presence of US troops should not be regarded as an “imperial act”—far from it. A recent study of public opinion in fourteen countries hosting US military personnel found another surprising benefit: “In non-combat settings, US personnel may, in fact, facilitate more supportive attitudes among the host population” by, among other things, increasing US soft power.²⁶ Deploying a fifty-question survey of more than one thousand local citizens, the authors found significant, robust, and large positive relationships in countries including Australia, Belgium, Japan, Kuwait, the Philippines, and Turkey. Foreigners who experienced personal contact with US troops were 5–7 percentage points more favorable in their “attitudes toward the US military presence in their country” and “attitudes toward the US people.”

South Korea provides a case study of the challenges of drawing down. President Donald Trump repeatedly signaled his frustration at maintaining US troops in South Korea, mirroring another president’s instinct for total withdrawal. During his 1976 campaign for the presidency, Jimmy Carter was telling editorial boards and voters that he favored withdrawing all US forces from South Korea. Once the Carter presidency began, White House press secretary Jody Powell said that the president had a “basic inclination to question the stationing of American troops overseas.”²⁷ His efforts were rebuffed by American generals but also by steadfast South Korean leaders.

The economic strength of South Korea today dwarfs the failed communist regime of Pyongyang, a fact that motivates many critics who argue that the US presence is no longer necessary. However, the budgetary cost of basing troops is lower abroad than domestically, thanks to host country subsidies.²⁸ The government in Seoul was paying \$830 million annually to support the costs of 28,500 US troops, which increased to \$924 million in 2019.²⁹ Meanwhile, the status quo of peace on the peninsula has been a seventy-year triumph for the United States and South Korea.

The policy recommendations one should draw begin with recognizing that the benefits of a US troop presence in foreign countries are a mix of depth (number of troops) and duration. The data indicates that the raw number of American forces matters less than duration and some trip-wire threshold indicating genuine commitment. Perhaps no more than a few

hundred American soldiers are needed, but more study is required. The policy rule seems to be that to avoid conflict, the United States should deploy between one hundred and one thousand troops to any allied countries willing to host them. A policy of wider deployments would likely be more effective than increasing force strength at current overseas bases, implying that a new policy of basing alliances throughout Eastern Europe (e.g., Lithuania, Estonia, Slovakia) and Asia (e.g., Thailand, Taiwan, Philippines) would be wise investments in preventing open warfare with Russia and China. The cumulative cost of all US bases abroad is an estimated \$55 billion, roughly the same as the \$50 billion in aid sent to Ukraine by the United States after Russia's invasion last year.³⁰ An ounce of prevention would have been worth a pound of war.

In conclusion, the all-volunteer force remains a vibrant multiplier of American hard and soft power fifty years after its start. While there is ample room for improved productivity and reform, it should be remembered that near-peer rivals in China and Russia depend on conscripted armies with all of their myriad dysfunctions that the Pentagon left behind a half century ago. Pushing for more advanced drones, cyber, intelligence, and other modernizations in capital equipment is vital, but defense leaders should never forget that maintaining the talent edge requires constant innovation as well.

Notes

1. Mark Bowden, "The Tiny and Nightmarishly Efficient Future of Drone Warfare," *The Atlantic*, November 22, 2022.

2. Consider the waste of paying a \$35,000 annual skill bonus for pilots and requiring these individuals to remain qualified in that skill to receive the bonus, all while employing them in nonflying jobs for a decade or more.

3. Figures come from the DoD's Defense Manpower Data Center online reports at <https://dwp.dmdc.osd.mil/dwp/app/dod-data-reports/workforce-reports>, accessed December 10, 2022.

4. Seamus P. Daniels, "Assessing Trends in Military Personnel Costs," Center for Strategic and International Studies, September 2021.

5. Formally known as the President's Commission on an All-Volunteer Armed Force.

6. For historical data, see US Bureau of Labor Statistics, "Data on the Unemployment Rate," <https://data.bls.gov/pdq/SurveyOutputServlet>, accessed January 6, 2023.

7. Catie Edmondson, "Congress Clears Military Bill Repealing Vaccine Mandate for Troops," *New York Times*, December 15, 2022.

8. Tim Kane, "Who Are the Recruits? The Demographic Characteristics of US Military Enlistment, 2003–2005," Heritage Foundation, October 26, 2006.

9. Ian Thomas, “The US Army Is Struggling to Find the Recruits It Needs to Win the Fight over the Future,” CNBC.com, October 26, 2022.
10. Stefan Borg, “Meeting the US Military’s Manpower Challenges,” *Parameters* 52, no. 3 (Autumn 2022): 99.
11. Todd Harrison’s 2012 study found, for example, “More than 80 percent of service members in each age group would be willing to have the retirement collection age raised to 50 in exchange for a 1 percent increase in basic pay.”
12. Tim Kane, *Total Volunteer Force: Lessons from the US Military on Leadership Culture and Talent Management* (Stanford, CA: Hoover Institution Press, 2017).
13. See the Thirteenth QRMC report (2020) at https://militarypay.defense.gov/Portals/3/QRMC-Vol_1_final_web.pdf.
14. David E. Rosenbaum, “Nation Ends Draft, Turns to Volunteers,” *New York Times*, January 28, 1973.
15. *The Report of the President’s Commission on an All-Volunteer Armed Force* (New York: Collier Books, 1970): 56–66.
16. George Shultz, from the Introduction to Kane, *Total Volunteer Force*.
17. John McCain, opening statement, “Department of Defense Personnel Reform and Strengthening the All-Volunteer Force,” US Senate, Committee on Armed Services, December 2, 2015, <https://www.govinfo.gov/content/pkg/CHRG-114shrg20957/html/CHRG-114shrg20957.htm>.
18. 26 USC § 411 Minimum Vesting Standards. See Cornell Law School Legal Information Institute, <https://www.law.cornell.edu/uscode/text/26/411>.
19. The Military Retirement Fund Audited Financial Report for FY2021 (November 2021) reports a balance sheet tally of \$1,933,646,716.
20. “Approaches to Changing Military Compensation,” Congressional Budget Office publication no. 55648, January 2020.
21. Kane, *Total Volunteer Force*, ch. 6.
22. Elmer B. Staats, “The 20-Year Military Retirement System Needs Reform,” US Government Accountability Office (report to Congress), March 13, 1978.
23. George Washington’s fifth annual address to Congress, December 13, 1793, <https://www.mountvernon.org/library/digitalhistory/past-projects/quotes>.
24. Lawrence Kapp and Barbara Salazar Torreon, “Military Pay: Key Questions and Answers,” Congressional Research Service Report RL33446, accessed November 12, 2022.
25. Timothy Kane, “The Decline of American Engagement: Patterns in US Troop Deployments,” Hoover Institution Economics Working Paper 16101, January 11, 2016.
26. Michael A. Allen, Michael E. Flynn, Carla Martinez Machain, and Andrew Stravers, “Outside the Wire: US Military Deployments and Public Opinion in Host States,” *American Political Science Review*, last revised February 13, 2020. Available on SSRN, doi:10.1017/S0003055419000868.
27. Allen et al., “Outside the Wire.”

28. This shouldn't be a controversial claim but it is clouded by the costs of 750 bases, pre-positioned equipment, and construction, rather than just personnel. The Pentagon estimated that total overseas basing in 2019 cost \$21 billion, with \$4 billion paid by the governments of Japan, Germany, and South Korea, according to a summary of the issues by Rick Berger: "Cost Plus 50' and Bringing US Troops Home: A Look at the Numbers," *War on the Rocks*, March 15, 2019. Jonathan Stevenson provides a cumulative annual cost of \$55 billion in "Chapter One: Overseas Bases and US Strategic Posture," International Institute for Strategic Studies, September 28, 2022.

29. Hyung-Jin Kim, "S. Korea, US Sign Deal on Seoul Paying More for US Military," Associated Press, March 8, 2019.

30. Stevenson, "Chapter One." For spending in Ukraine, see Jonathan Masters and Will Merrow, "How Much Aid Has the US Sent Ukraine? Here Are Six Charts," Council on Foreign Relations, last updated February 22, 2023.