

# On the Military, Demography, and Human Capital

Responding to the rolling disaster requires reserves, robotics, rethinking strategies, and refinancing contracting.



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RESEARCH NOTE  
6 JULY 2023

Across the Atlantic alliance, and indeed in most industrialized countries, demography is producing long-term disaster for the military. In many of those countries, questionable human capital management is exacerbating the problem. I suggest a four-fold response: greater reliance on reserves, increased use of battlefield and rear-area robotics, rethinking strategies for more valuable utilization of people, and refinancing contracting by leveraging investments in labor-extending technologies.

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## Militaries: What Would You Say You Do Here?

It is most helpful that the Ukrainian Armed Forces have destroyed, in the estimation of British Intelligence, over half the fighting potential of the Russian land forces. This is because, in the estimation of Supreme Headquarters Allied Powers Europe (SHAPE), “most NATO countries can only field a single full-strength brigade... with one or two artillery battalions.” So said Major General Matthew Van Wagener, SHAPE’s Deputy Chief of Staff for Operations, at the recent Land Warfare Conference of the Royal United Services Institute in London. That is enough to fight off the now-freebooting Wagner Group and the reprobates who are increasingly staffing the new Russian ‘Z’ battalions, but it is unclear how much more.

In the estimation of its commander, Lieutenant General Sir Nick Norton, the Allied Rapid Reaction Corps (ARRC) is perhaps the only definitely ready large formation in Europe. Around NATO, the ARRC is generally pronounced as *the Ark*, though I think they get not the joke. Ben Wallace, the British State Secretary for Defence, thinks that the British Army similarly cannot field more than a single brigade, though he did not specify whether that would included the British-led ARRC. If not, then we might ask just what is the point of that 70,000-strong British Army. Such a number should generate a corps, not a brigade!

At RUSI, General Pierre Schill, the French Army Chief of Staff, articulated his “basic contract” with his government: four brigades for immediate service, and a full corps later, from what he called a “medium-weight, balanced army”. Even so, just a division now from an *Armée de Terre* of 118,000 hardly matches the readiness of the Massachusetts Minutemen of 1776.

As General Wagener continued, NATO forces have far too many people in headquarters functions, and far too few in actual field forces. Perhaps the PowerPoint rangers are just not in shape for field service. Major General John Kline, who leads initial training for the US Army, noted at the event that fully 17 percent of the Regular Army and 25 percent of the National Guard are technically obese. Even then, the Regular Army is about 20,000 troops short of its authorized end strength. The government would pay for that many more soldiers, if only it could find them (reporting by Davis Winkie).

The problem afflicts not just the land forces. The Royal New Zealand Navy has been tying ships to piers for lack of sailors (reporting by Nick Lee-Frampton). The US Navy is 9,000 sailors short in actually sea-going billets (reporting by Diana Stancy Correll). On land in particular, as the force densities along the Russian front indicate, the so-called empty battlefield is already a reality. All this is likely to get worse, as most military forces around the more developed world are still contracting in staff. The reason is the destiny of demographics.

## **Demography: in the long run, fewer forces will be available.**

As I wrote more briefly in my recent note [On Brilliant Munitions](#), demography shows that the battlefields will be yet more empty:

*Fighting the Chinese, allied forces should always expect to be outnumbered, at least at the start of any big war. The same applies to any local battle by a small NATO state against the Russians. At the same time, every country preparing for that war suffers from acute demographic challenges. Across the United States, fertility stands at 1.70 live births per woman. In 2021, across the entire European Union fertility averaged 1.53, from 1.13 in Malta to 1.84 in France. In Canada, it is 1.48; Japan, 1.34; Taiwan, 1.24; and South Korea, 0.84—the lowest in the world. Of course, in Russia, the rate is but 1.5; and in China, but 1.2. In Ukraine, before the war, it stood at 1.16. Almost nothing anywhere has proved useful in reversing this long-term secular decline. This means that every side of a big-and-future war will face a declining base of young people amongst whom to recruit soldiers.*

More practically, in the United States, this translated into a 1.1 percent decline in the decade from 2010 to 2020 in the age cohort of 15 to 24 years, and a very slight increase in the cohort under 15 years old (see the essay by William H. Frey at Brookings). In 2017, by the Pentagon's Qualified Military Available Study, only 29 percent of young Americans were considered fit for military service, for physical, mental, or legal reasons (reporting by Thomas Novelly). Last year, according to Stephen Cheney and Stephen Xenakis, two retired brigadiers at the American Security Project, only 24 percent of Americans were considered eligible. This year at RUSI, General Kline lowered that estimate to 23 percent. That is a remarkable and sobering trend.

Raw numbers are less problematic in the lesser developed parts of the world. As I heard a former Italian defense minister put it last year, in 1945, the population of Europe was 500 million. Today, the population of Europe is still 500 million, but only 75 million are under 25 years of age. In Egypt alone, 70 million people under 25 years of age. In short, as he put it, “we are not the future.” That matters when trying to influence events. If wading into counterinsurgency, the shortage of troops will get more embarrassing. Meanwhile, the developing world is increasingly urbanized, and the Russo-Ukrainian War has shown that cities can make impressive defensive positions. Sun Tzu’s famous admonition about walled cities may be strategically useful here.

## **Human capital: military forces are mostly bad at it.**

As Brian Nichiporuk wrote for RAND in 2000, we have seen these trends coming for decades. So we might do something about them, now. Money may be tight, even in wealthy countries. “Global graying” in all the more developed countries puts constraints on capital, with falling asset prices, more older people seeks to support themselves by liquidating investments. It limits room in government spending, from rising pension liabilities, the cost of long-term health care, and that increasing share of retirees who are generating less income (see the essay by David Bloom).

Labor is a larger and more direct problem, as very low unemployment rates create competition for talent. In the US, Air Force Secretary Frank Kendall expects recruiting to pick up when the economy tanks again, whenever that might be. Declining demographics and insanely tight immigration policies suggest that low unemployment may be a long-standing reality. The widely reported malaise of the young broadly matches their workforce participation. Only nine percent of eligible people in the US are even interested in military service.

Then again, why should they be? The entire recruiting class of 2001 joined up, shipped out, and eventually retired just as Joe Biden was surrendering Afghanistan to the Taliban. That is far too harsh an assessment, as the Afghans themselves are foremost to blame for their serial failures. Even so, the reality remains: American and other troops who joined that fight saw their life’s work evaporate in a week. Much of US recruiting is amongst the families of veterans, but today, an alarmingly high fraction of veterans is discouraging their family members from signing up (see reporting by Ben Kesling). Besides, your on-base housing is overrun with mold.

There are managerial problems too. At RUSI, General Kline lamented that his service is doubly bad at managing human capital: with recruiters unskilled at recruiting, the Army cannot recruit the right recruits. Meanwhile, too many recruiting stations sit in abandoned strip malls on fifty-year leases, with recruiters lacking the tools to sign and process documents electronically. This is hardly modern and conscientious talent management.

In contrast, as a team from McKinsey & Company wrote 25 years ago, in a war for talent, talent management must be a “burning corporate priority” (see the 1998 article by Elizabeth Chambers *et alia*). Subsequent research made clear that corporate context and institutional

support matter greatly: much of the value that individuals deliver depends on the network of people around them (see the notable 2011 book by Boris Groysberg of Harvard Business School). As Gary Becker classically observed, hubris helps not at all, in that “the typical investor in human capital is more impetuous and thus more likely to err than is the typical investor in tangible capital.” Military organizations tend to excel at putting people in context and leveling hubris—if sometimes up as well as down. Regardless, as Dominic Barton and his partners at McKinsey countered in a 2018 book, in many organizations, disproportionate value can flow from a small set of properly supported top performers. Just consider the importance of Ukraine’s software developers and drone builders in the present war. All these considerations rather show how the problem is complex, but the solutions may be rewarding. They just may require some radical rethinking of the military and its supporting enterprises.

## Responses: what would smarter look like?

As I continued in that earlier essay, “whether defending localities against the smash-and-grab aggressions of autocrats, or fighting for reconquest, the allies must plan for fewer soldiers, and more automation, than they have today.” I offer four further ideas.

**Reserves.** At RUSI, General Schill argued that today’s “hyper-professionalized and exquisite training requirements,” coupled with a shortage of full-time staff, point to the value of a wider employment of reservists and auxiliaries in specialist roles. The Ukrainian war effort has been hugely enabled by semi-militarized, highly connected civilians on, behind, and in front of the front lines (see the essay by Shashank Joshi). The US Space Force is holding discussions about fluidity in movement between active, reserve, and semi-affiliated service, so that talent can flow to where people can garner the experiences most useful to future service. As a retired American four-star argued to me over beers some years ago, we need to find that high-performing top talent, and find ways to help them serve, perhaps as temporary officers entering beyond the most junior ranks. Did not [Bill Knudsen](#) do a fine job in the Big One?

**Robotics.** On the battlefield, more technology is needed to leverage fewer people. General Schill observed at the RUSI conference that net-centricity may be returning from twenty years ago, as yet another important military innovation ballyhooed too soon. Retired Major General Mick Ryan has written about the the importance of further human-machine integration, in which “robotic systems, big data, high-performance computing, and algorithms will be absorbed into military organizations in larger numbers to augment human physical and cognitive capabilities, to generate greater mass, more lethal deterrent capabilities, more rapid decision-making, and more effective integration.” That’s a lot, but it’s important, and increasingly available. Daron Acemoglu of MIT and Pascual Restrepo of Boston University have found that faster aging in the population leads to faster robotization in the civilian economy. As I noted in my [earlier essay](#), that can help make robotics more available to the rear. [Rob Bassett Cross](#), CEO of the startup artificial intelligence firm Adarga, argued at RUSI that the marketing pitch to necessarily conservative military customers is easier when the functions are supporting or even just administrative. Some easy victories may come with robotic process automation of headquarters functions, which could free up more fit soldiers for the field forces.

**Rethinking strategy.** As General Schill noted, training for the big war does not fully help one fight the small war, but few countries can afford two armies. (The United States has that huge Marine Corps, but it is reconfiguring as an actual naval force.) Fifteen years ago, we might have properly wondered why the United States, with some of the highest labor costs in the world, chose to spend so much money on sending its own troops around the world in counterinsurgency, a fundamentally labor-intensive military mission. Ten years ago, I wrote that after the Afghan War concluded, the United States government might chose a much smaller Regular Army in favor of a much larger National Guard. On the other hand, as Jeffrey Friedman of Dartmouth University found in his 2011 study of 171 counterinsurgent campaigns, there is “no discernible empirical support” for any rule of thumb in how many troops are enough to win. Moreover, as Lawrence Kapp and his colleagues at the US Congressional Research Service wrote in 2016, “the U.S. has a somewhat precarious track record when attempting to predict the type and character of future conflicts.” This prompted their question of “what might an agile Army force structure, capable of more rapidly adapting to future security challenges, look like?” (I will consider that myself in a future research note.)

**Refinancing contracting.** As Jacques Bughin and a team of McKinsey wrote in 2018, plenty of corporate managers in North America and Europe expect automation to greatly enhance the productivity of their people without actually decreasing their headcount. Rather, they expect automation to “amplify superstar dynamics” amongst those exceptionally valuable. Again, the problem may be money. As Charles Atkins and another team at McKinsey more recently wrote,

*Investment supports labor productivity by adding tangible capital (such as land or equipment) and intangible capital (such as R&D, software, human capital, and brands). Since 2005, investment of all kinds slowed despite record low interest rates, even as firm profitability and foreign investment grew. Investment has grown since then but has yet to return to pre-2005 levels... Since 2005, US labor productivity has grown at a lackluster 1.4 percent. At the same time, real wages have slowed and workforce participation has declined.*

The situation is yet worse amongst suppliers to the military, and particularly in the US, because the federal government's procurement bureaucracy largely does not reward financial initiative (see reporting in this week's *Wall Street Journal* by Daniel Michaels). This is one of the reasons that led Byron Callan of Capital Alpha Partners to write last November in a research note that “we don't yet see a stand-out contractor in terms of new manufacturing facilities, supply chain de-bottlenecking, and workforce development that is leading to sustained competitive advantage.”

Now what would that look like? Perhaps there is no standout, but there is a long list of venture-backed firms aspiring to such success, in new ways that throughly leverage modern information technologies. The influential Silicon Valley Defense Group has compiled [a list of 100 such firms](#), and will hold a [video seminar](#) to discuss the firms, on LinkedIn on 17 July. I plan to tune in.

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