Executive Summary from "Pulling Back the Curtain on China's Military-Civil Fusion"

Over the past several years, China has worked to transform the People's Liberation Army into a sophisticated, highly capable force that can compete with the U.S. military. In so doing, Beijing has reformed the PLA and rolled out various policies to fast-track military modernization. Key to the Chinese government's aims is the use of artificial intelligence (AI) and related technologies to boost the Chinese military's development and adoption of advanced capabilities to outmatch rivals in future conflicts. To accelerate military modernization, Beijing has encouraged the PLA and state-owned defense conglomerates to work more closely with the civilian sector under its military-civil fusion (MCF) strategy. By fostering closer coordination between the defense and civilian sectors, China's top leaders believe that the PLA can match and eventually surpass U.S. military capabilities.

This report leverages a novel dataset of 2,857 AI-related contract award notices published by the PLA between January 2023 and December 2024. From these documents, we identified 1,560 different organizations that won at least one such AI-related contract. We focus our analysis on the 338 entities awarded at least two AI-related contracts, collecting open-source information on each to shed light on China's AI-related defense industrial base. Furthermore, we assign each entity to one of three categories: state-owned enterprises (SOEs), research institutions, and nontraditional vendors.

Our analysis shows that SOEs and research institutions with longstanding ties to the PLA continue to lead AI-related military procurement. Of the fifteen top awarded entities in the dataset, eleven were either SOEs or defense-affiliated research institutions. The SOEs that won the most contracts were China Electronics Technology Group Corporation (CETC), China Aerospace Science and Technology Corporation (CASC), and China North Industries Group Corporation (NORINCO). The Seven Sons of National Defense—a group of universities closely affiliated with China's defense sector—and various affiliates of the Chinese Academy of Sciences were also among the top awarded entities in the dataset, reflecting their importance in supporting China's military modernization efforts. In short, many of the same organizations that have historically driven Chinese defense technology advancements are also the top suppliers of AI-related goods and services within our dataset.

Nonetheless, the dataset reveals that an emerging class of firms and universities appears to also play a consequential role in China's AI-related military procurement. Close to three-quarters of the 338 entities analyzed in this report are nontraditional vendors (NTVs), or firms with no self-reported state ownership ties. NTVs won 764 contracts, the most of any of the three categories. Most NTVs

were established relatively recently, with two-thirds founded after 2010. On their websites, NTVs often highlight their focus on developing dual-use technologies, indicating that these firms see both the civilian and defense sectors as avenues for growth. Finally, the dataset reveals that some research institutions without well-documented linkages to China's defense sector actively bid on and win contracts to supply the PLA with AI-related products with clear military applications.

Several implications merit mention.

SOEs continue to lead AI-related defense procurement in China, but our findings suggest that while barriers remain for smaller, newer NTVs, these entities appear to be playing a substantial role in providing AI-related technologies to the PLA, potentially accelerating technological development and AI diffusion throughout the Chinese military. Although it is unclear whether Beijing's efforts to promote its MCF strategy are responsible for these trends, this report indicates that NTVs and research institutions are active participants in China's military procurement for AI-related goods and services.

The apparent diversification of China's AI-related defense industrial base presents several challenges. First, it may complicate the United States' ability to hamstring China's military modernization by restricting certain legacy defense players' access to critical technologies and funding. Moreover, our findings could indicate that China has, to some degree, succeeded in fostering competition within its historically inefficient defense sector. If so, these findings may have implications for our understanding of China's ability to incorporate dual-use technologies developed in the civilian sector for military end uses. Finally, this dynamic complicates U.S. due diligence for research funding, export licensing, and outbound-investment screening.

The vast majority of NTVs and research institutions in the dataset are not subject to U.S. sanctions. As the boundaries between civilian and defense technologies blur, the United States will face difficult trade-offs between preserving the openness necessary for innovation while mitigating national security risks. Accordingly, the United States should develop a sophisticated, evidence-based approach to safeguarding research and economic security to both impede the PLA's acquisition and adoption of advanced technologies and ensure that benign and beneficial collaborations with Chinese entities are able to continue.

For more information:

- Download the report: https://cset.georgetown.edu/publication/pulling-back-the-curtain-on-chinas-military-civil-fusion/
- Contact us: cset@georgetown.edu