Talent Shortage Could Undermine U.S. Strength in Artificial Intelligence

Current immigration policies would make it worse

Washington, DC - A prolonged talent shortage could undermine U.S. strength in artificial intelligence, which is increasingly important to national security, and current immigration policies would only make it worse, according to a report released today by a new think tank, the Center for Security and Emerging Technology (CSET).

The report, "Strengthening the U.S. AI Workforce: A Policy and Research Agenda," lays out what is currently known about domestic and global AI talent, identifies priorities for U.S. policymakers and describes policy-relevant knowledge gaps that researchers should fill.

Among its findings:

- There is a significant talent shortage in AI, both domestically and globally.
- One consequence of U.S. talent shortages is that U.S. companies are moving AI research and development (R&D) abroad.
- The United States relies heavily on foreign-born talent. For example, more than 50 percent of computer scientists with graduate degrees employed in the country today were born abroad, as were nearly 70 percent of enrolled computer science graduate students.
- The vast majority of foreign-born talent wants to stay in the United States.
- The United States’ established strength in top AI talent recruitment and retention is at risk due to adverse trends in U.S. immigration policy and efforts by other countries to open up new immigration pathways and launch talent-attraction programs.

The report’s policy recommendations include:

- Adopting immigration policies that eliminate existing barriers to recruiting and retaining foreign-born AI talent and halting the implementation of ongoing immigration reforms that reduce U.S. competitiveness.
- Formulating targeted policies that counter the harmful transfer of AI technologies and know-how. In so doing, ensuring against overly-broad restrictions that could make the United States inhospitable to foreign researchers and workers, which would worsen talent shortages.
- Launching education and R&D initiatives that simultaneously address domestic workforce shortages and fund neglected but important research areas.
- Developing strategies for government AI workforce development based on agency-led investigations of AI talent demand and potential supply.

“Strengthening the U.S. AI Workforce” is available online and will be discussed at the upcoming Kalaris Intelligence Conference, which is being co-hosted this year by CSET and Georgetown University’s Center for Security Studies.

Established in January 2019 at Georgetown’s Walsh School of Foreign Service, CSET studies the security impacts of emerging technologies, supports academic work in security and technology studies, and delivers nonpartisan analysis to the policy community. CSET aims to prepare a generation of policymakers, analysts and diplomats to address the challenges and opportunities of emerging technologies. During its first two years, CSET is focusing on the effects of progress in artificial intelligence and advanced computing.