

Key Takeaways from “A Quantitative Assessment of Department of Defense S&T Publication Collaborations”

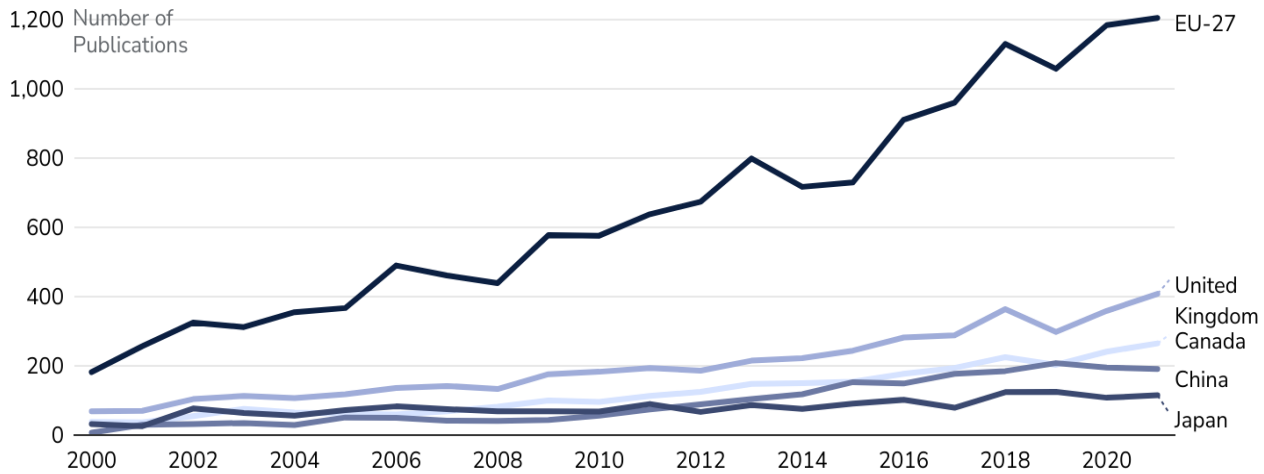
We reviewed 136,000 research papers from authors affiliated with the U.S. Department of Defense or one of its federally funded or university-affiliated research and development centers (FFRDC/UARCs) and found that:

- 86% of the papers included an author from the DOD, 12% had an author from a DOD FFRDC/UARC, but co-authorship by a DOD and FFRDC/UARC author represented only 2% of the papers.
- Whether it was with a DOD or FFRDC/UARC, papers co-authored with researchers from academia, another government lab, a private company, non-profit organization, or international organization represented 31% of the papers. Co-authorship with private industry was relatively low compared to its R&D efforts. While industry may be less inclined to publish basic research, given the size of this discrepancy, researchers should examine if the present rate of co-authorship is at an optimal level for U.S. strategic goals to benefit from private research.
- Half of the top 10 universities co-authoring papers with DOD-affiliated researchers are also home to an FFRDC/UARC. If the DOD wishes to further diversify its engagement with academia, it may consider how to replicate the FFRDC/UARC advantage on other campuses.

Table 1. Top Co-author Institutions, by Type

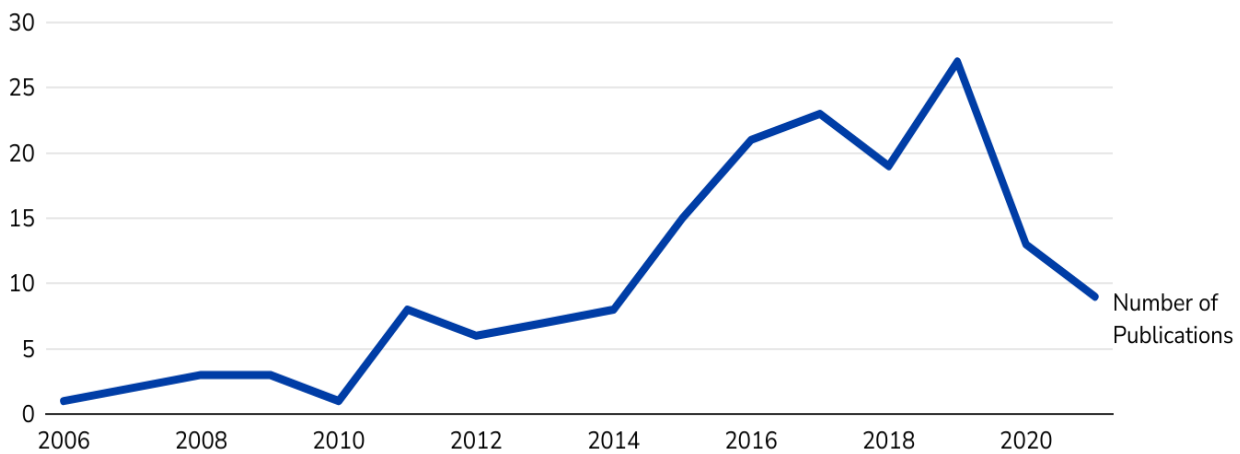
Academic Top 10	Other Governmental Top 10	Private Sector Companies
1. Massachusetts Institute of Technology	1. Goddard Space Flight Center	1. Science Applications International Corporation
2. University of Maryland, College Park	2. National Institutes of Health	2. UES
3. University of Washington	3. Jet Propulsion Laboratory	3. Leidos
4. Johns Hopkins University	4. Langley Research Center	4. Lockheed Martin
5. University of Michigan, Ann Arbor	5. National Institute of Standards and Technology	5. Sotera Defense Solutions
6. University of Dayton	6. Ames Research Center	6. General Dynamics
7. University of Colorado, Boulder	7. National Cancer Institute	7. University Surgical Associates
8. University of California, Los Angeles	8. United States Geological Survey	8. Boeing
9. George Mason University	9. Glenn Research Center	9. Northrop Grumman
10. Pennsylvania State University	10. National Institute of Allergy and Infectious Diseases	

- 4% of papers included an international co-author, most frequently from one of the 27 member states of the European Union. China is the fourth most frequent country listed among international co-authors, however, unlike other top collaborators the number of co-authored papers decreased between 2019 and 2021.



Source: OpenAlex

- While never a substantial number over the 11-year period, co-authorship between DOD-affiliated authors and authors affiliated with China’s Seven Sons of Defense has notably decreased since 2019.



Source: OpenAlex

For more information:

- Download the report: <https://cset.georgetown.edu/publication/a-quantitative-assessment-of-department-of-defense-st-publication-collaborations/>
- Contact us: cset@georgetown.edu