



Modeling the Diffusion of Military Technology

Joseph Gehler (COL 2019)

Advisor: Michael Horowitz

As a prospective BBB major, I got a lot of strange looks when I told people that I was applying to do political science research over the summer. It makes a bit more sense when considering that the project was far more quantitative and interdisciplinary than what people assumed- the aim of the ongoing project is to model the diffusion of disruptive military technology in order to identify trends and patterns.

In order to do this, I, along with the other research assistants on the project, started by creating a comprehensive database of several key technologies, such as cruise missiles and unmanned aerial vehicles. We included the specifications of each system as well as the circumstances of each user's acquirement and deployment of the system. The database is being created almost exclusively using publically-available information, making results easily replicable and available to anyone interested in government and military transparency.

Working on the project was eye-opening, to say the least. Military opacity is a luxury that only the most powerful and wealthy countries, like the United States and China, can afford; smaller countries rely heavily on these larger countries for military accoutrement, and, under international law, the vast majority of arms sales must be logged with global regulatory bodies. As a result, tracking the military capabilities of most countries over time is relatively easy when sources like the Stockholm International Peace Research Institute's (SIPRI) arms transfer database are available. To me, these sources paint a revealing picture of the global arms trade, illustrating that the rhetoric of many governments belies a far more nuanced approach to foreign policy. For instance, during the period of rising tensions that precipitated the Falklands War, France sold Exocet missiles to both Argentina and the United Kingdom while publically supporting the UK and condemning the actions of the Argentine junta.

As the database takes shape, we are beginning to coordinate more closely with other universities, such as SUNY Albany. We are merging our work with theirs in order to create a more complete picture of technological diffusion between militaries. We are also beginning work to create a visual model.

My work on this project not only opened my eyes to a new layer of complexity in international security, but also enhanced my appreciation and understanding of research as a practice.