Since 2005, The Congressional Budget Office (CBO) has been responsible for more than $500 billion dollars in defense spending alone. Each year highly scrutinized budget requests are processed, refined, and settled on by congress. My goal for this research project was to model spending over a twenty-year period and try to determine what the following year’s spending would look like. The first cut I made to my project was to shorten the time frame, first to ten years and then to five. For this essay, I will use primarily the 2020 defense budget document, which contains an overview of the last five years and a forecast two years ahead. In this essay I will break down a five-year expenditure model for the United States Department of Defense.

The data was collected from the Office of the Comptroller General, so there would be as little data bias as possible, although the budget release states that the numbers are estimates. Each year’s budget data is split into expenses for

* Army
* Navy
* Air Force
* Defense Wide

Each of these divided into 8 appropriation titles:

* Military Personnel
* Operation and Maintenance
* Procurement
* RDT&E (Research, Development, Test and Evaluation)
* Military Construction
* Family Housing
* Revolving Management Funds

A simple graph of these subcategories across five years shows the growth of expenditure across the three major branches: Army, Navy, and Air Force. My initial assumptions were correct, that each branch showed growth in spending. The appropriation titles which showed the most spending was operational and personnel costs, whereas infrastructure costs were significantly less. The totals for each of these three branches added up to the totals suggested by both the defense budget request and the defense budget overview, give or take a few thousand dollars. This was where I hit my first roadblock, in that there really seemed not much else to show.

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The first thing I learned from these graphs alone was that the Army spends less on procurement and

research and development. Of the three major branches, the army is the one most focused on land warfare, meaning the least amount of high dollar equipment. The Air Force cannot fly without airplanes and the Navy cannot sail without ships. The Air Force paved the way for US Cyber warfare command, unmanned aerial vehicles, and precision guided weapons, to name only a handful of things. From 2019 onward, their research and development programs have totaled more than the Army and Navy combined. The Navy leads expenses in procurement, using both ships and airplanes.

Some shortcomings in the collection of the data were apparent from the beginning: expenditure reports can be backlogged, and the documents presented deal in rounded numbers.

United States. Office of the Under Secretary of Defense (Comptroller). Defense Budget Overview: United States Department of Defense Fiscal Year 2021 Budget. Beach, John W Mr OSD COMPT. Revised May 13th, 2020. Washington D.C.: Government Publishing Office, May 13 2020.

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