



Introduction

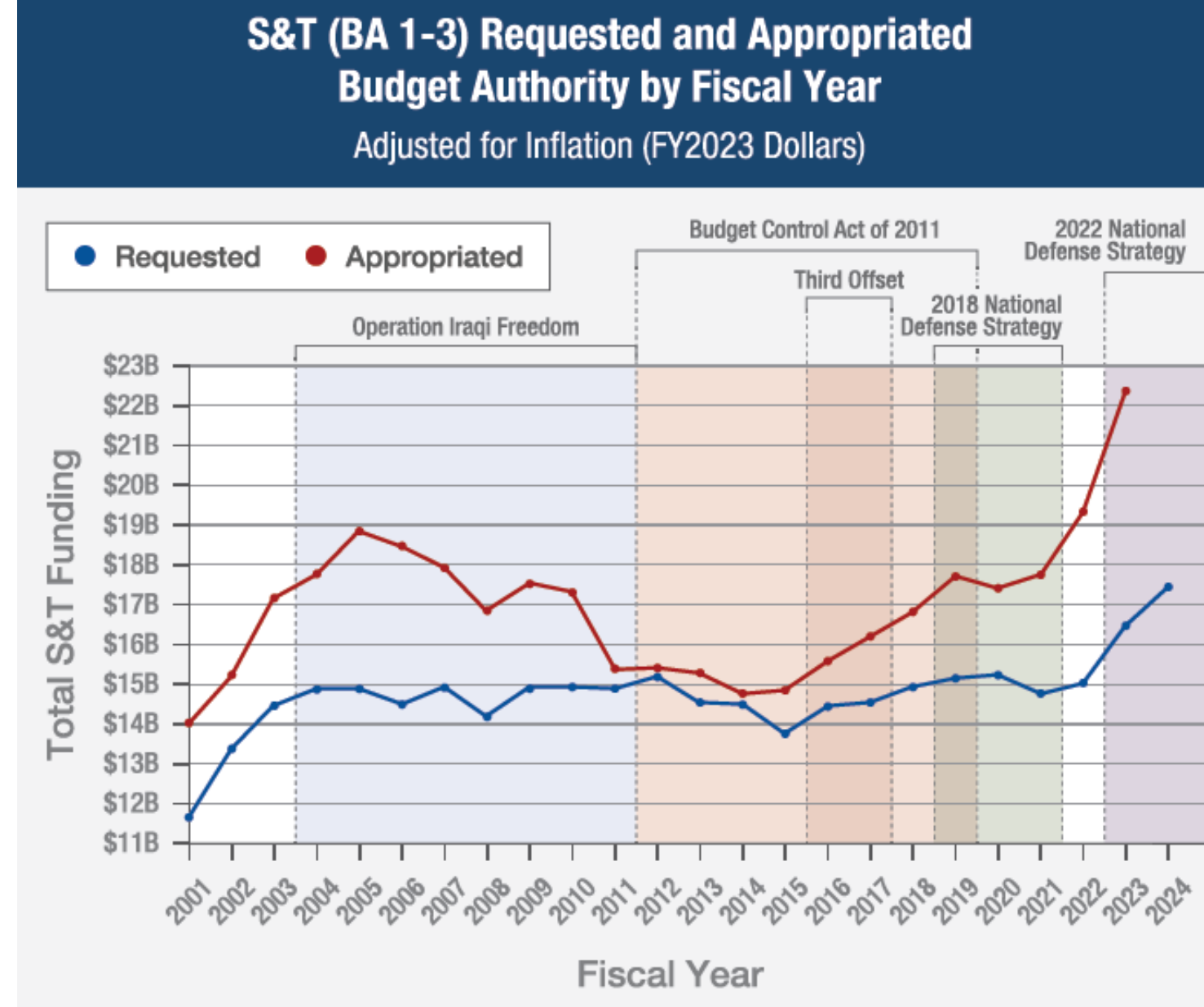
- NDIA ETI analyzes DoD research and development funding data to help stakeholders throughout the policy, research and engineering, and business communities understand how the government is prioritizing cutting-edge emerging technologies.
- This paper reviewed Budget Requests and Appropriations data for the following eras: Operation Iraqi Freedom, the Budget Control Act (BCA) of 2011, the Third Offset, the 2018 National Defense Strategy, and the 2022 National Defense Strategy.

What is S&T Funding?

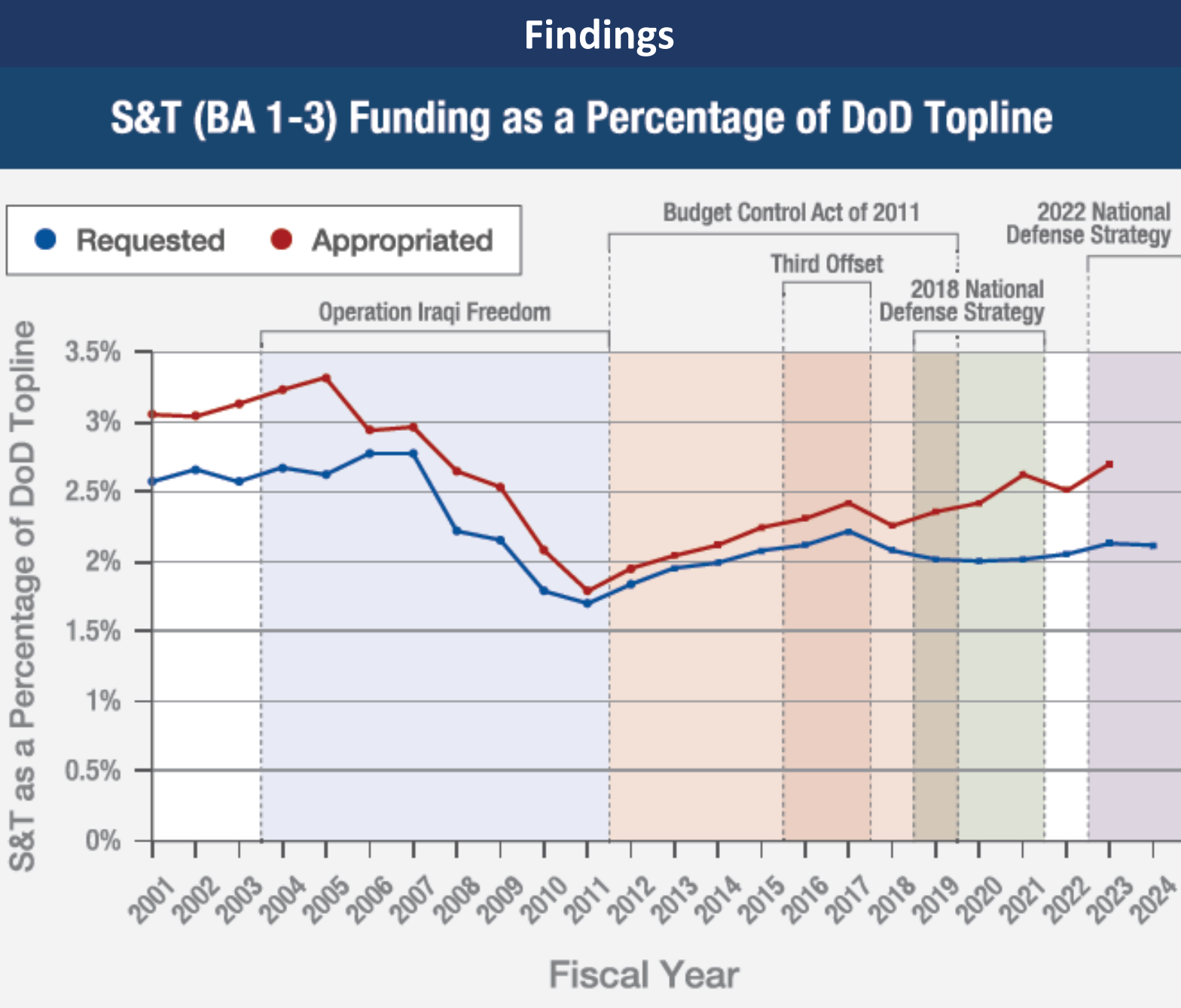
RDT&E Budget Activity Name	Description of Funding	FY23 Appropriations
Basic Research ("6.1"/"BA1")	Funds fundamental science research	\$2.9B
Applied Research ("6.2"/"BA2")	Funds scientific or technical research for a particular military need	\$7.8B
Advanced Technology Dev. ("6.3"/"BA3")	Funding for early R&D on subsystems and components that could become prototypes	\$11.6B

What is NOT S&T Funding?

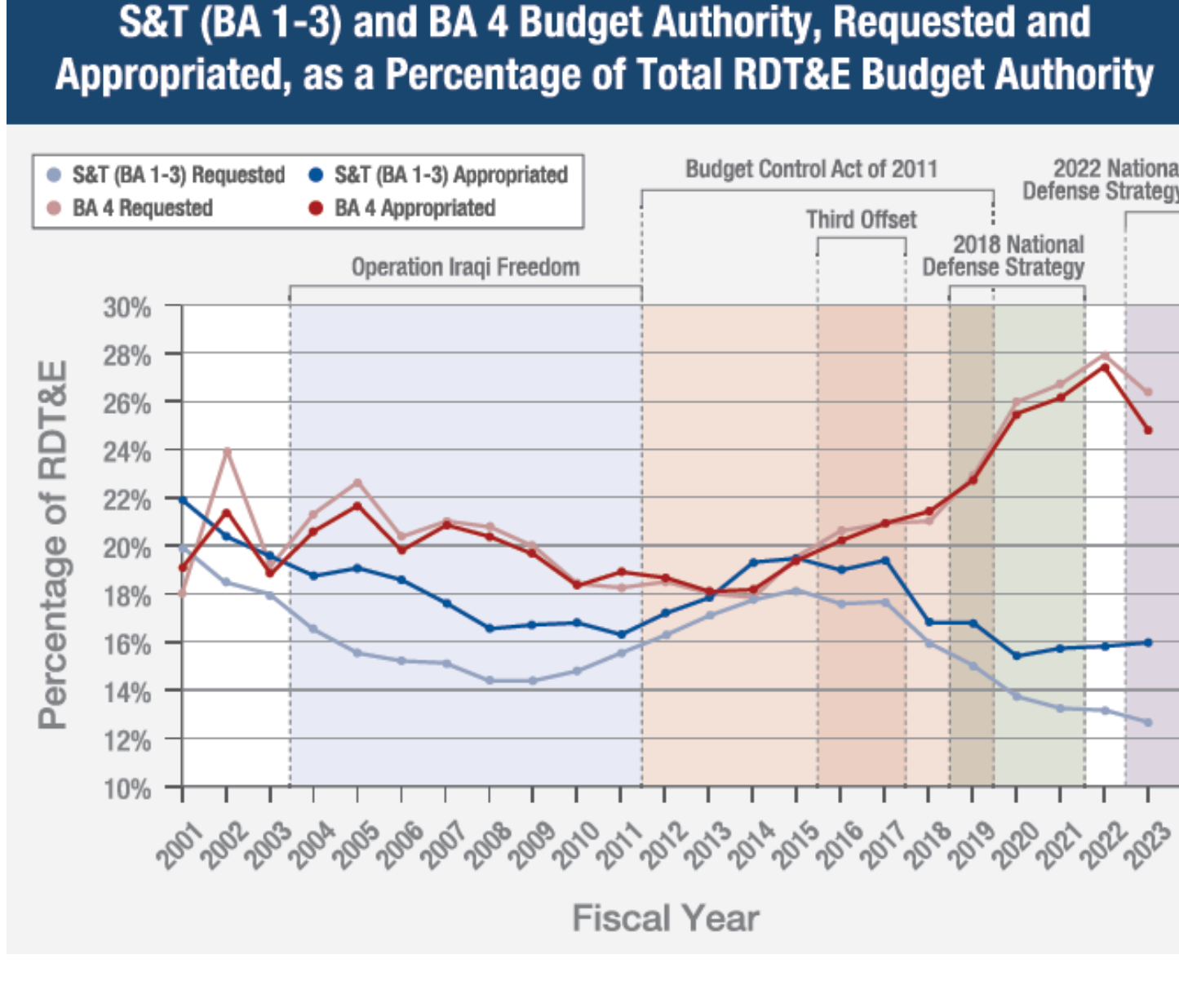
- RDT&E Budget Activities 4-8
- The Defense Health Program
- SBIR/STTR
- Military Construction
- Independent Research and Development (IRAD).



- FY2001 to FY2004: S&T funding rapidly rises, consistent with DoD topline growth.
- OIF/GWOT: Steady-state long-term investments during high operational tempo.
- FY2015: Appropriations begin to grow sharply as earmark moratorium ends.
- FY2022: Budget requests rise sharply, matching guidance in 2018 and 2022 NDS.



- As procurement and operational needs grew during OIF, S&T shrunk as a share of topline.
- S&T's share of the budget was protected during the BCA years, even as other areas were cut.
- S&T requests rise less when topline grows, possibly reflecting little change in priority for S&T by administrations when requesting higher topline.
- S&T requests shrink more slowly when toplines shrink, possibly due to perceived guidance on maintaining a minimum level of investment.



- S&T has grown in real terms, but has been outpaced by growth in broader RDT&E portfolio.
- Growth in later Budget Activities for prototyping, system development, and upgrading fielded systems has been faster.

Conclusions

- Overall, while S&T has grown over the past four years in requested and (especially) appropriated funding, the time periods analyzed in this paper do not appear to correlate with significant changes in spending decisions.
- True even while several of eras were characterized by rhetoric regarding defense modernization.
- It is notable that despite pronouncements on the importance of S&T funding, from DoD throughout the Third Offset and 2018 National Defense Strategy, it appears to have been Congressional actions that push S&T to dramatically higher levels.
- S&T funding has been remarkably consistent in real terms since 2000: Approximately \$14.5 billion per year from FY2004 to FY2021. \$16 to \$17 billion could be a new equilibrium, possibly due to perceived 'rise' of near-peer competitors.
- However, the current growth in the level of S&T spending is unlikely to last if the DoD topline begins to flatten, or if government-wide budget discussions result in a new sequestration mechanism and/or BCA-like era.