



Preliminary Findings: Is the Ratio of Investment Between R&D to Production Experiencing Fundamental Change?

Rhys McCormick

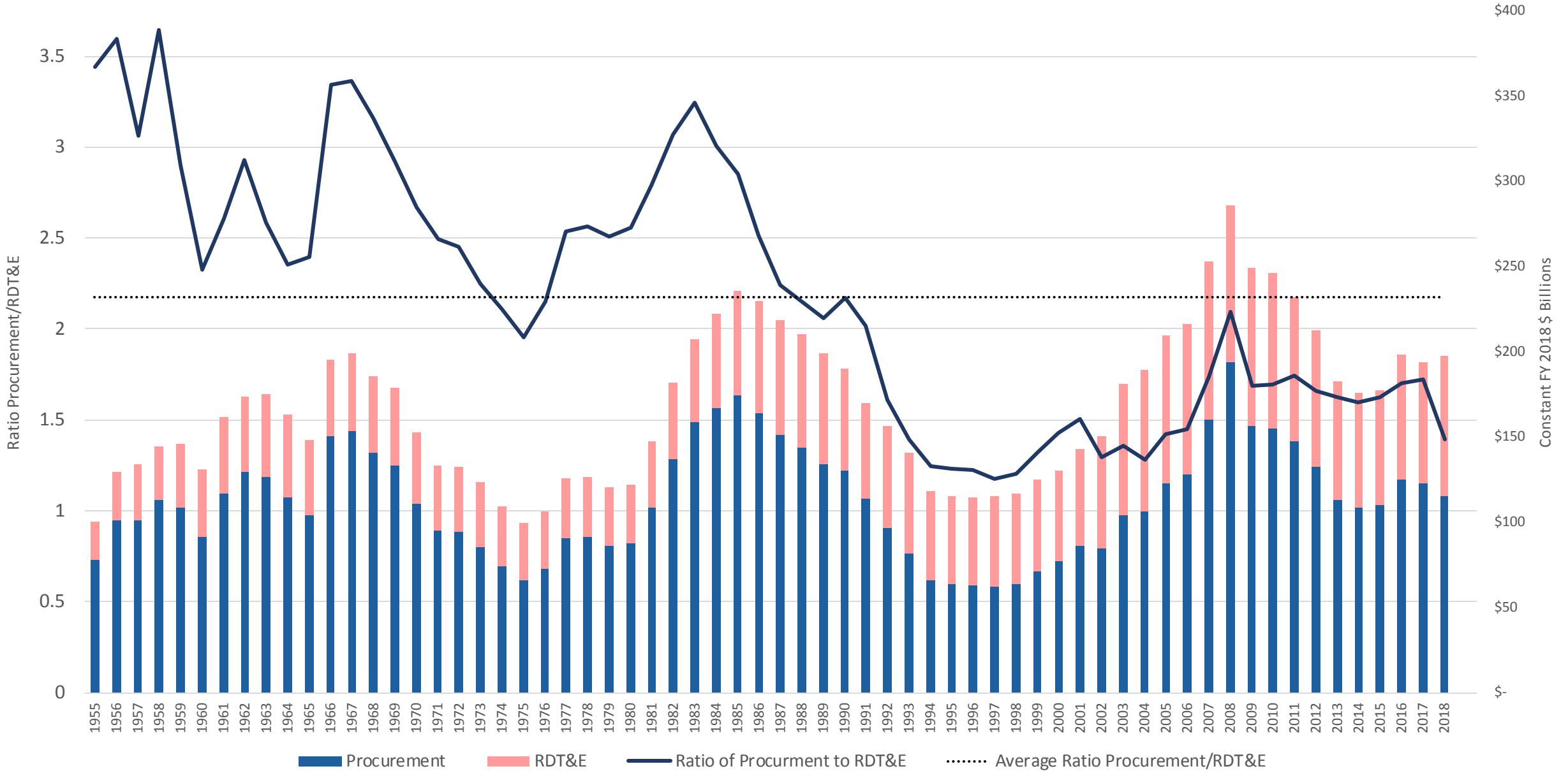
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Overall DoD Ratio of Procurement to RDT&E, 1955-2018



Research Approach

Research Questions:

- Has the relative importance of R&D changed across the broader economy over the past four decades?
- What are the historical trends in the ratio of procurement to R&D funding in the military Services? Are there significant differences between the military Services?
- What are the top-line historical trends in the ratio of procurement to RDT&E funding for the MDAP portfolio?

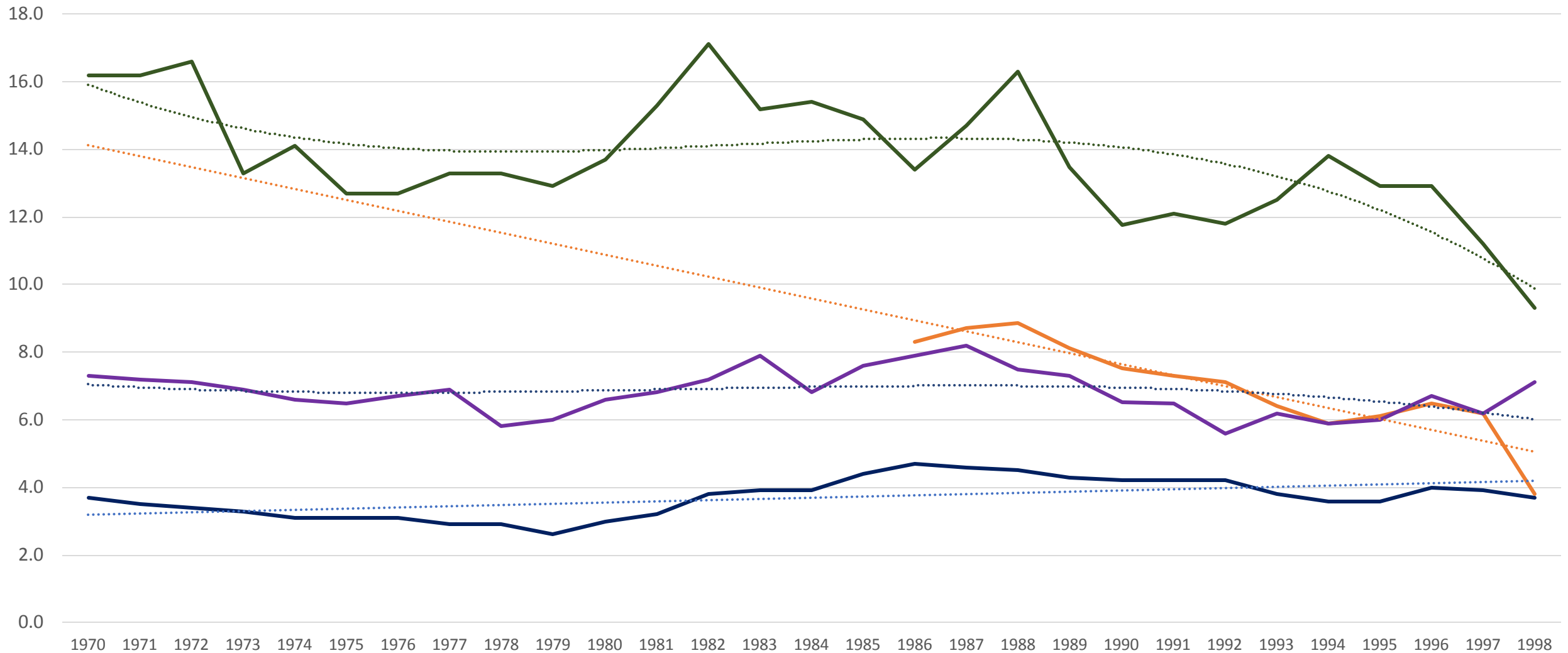
Data Sources:

- Selected Acquisition Reports (SAR)
- R&D Intensity Data: National Science Foundation
- DoD Greenbook

Research Question 1: Has the relative importance of R&D changed across the broader economy over the past four decades?

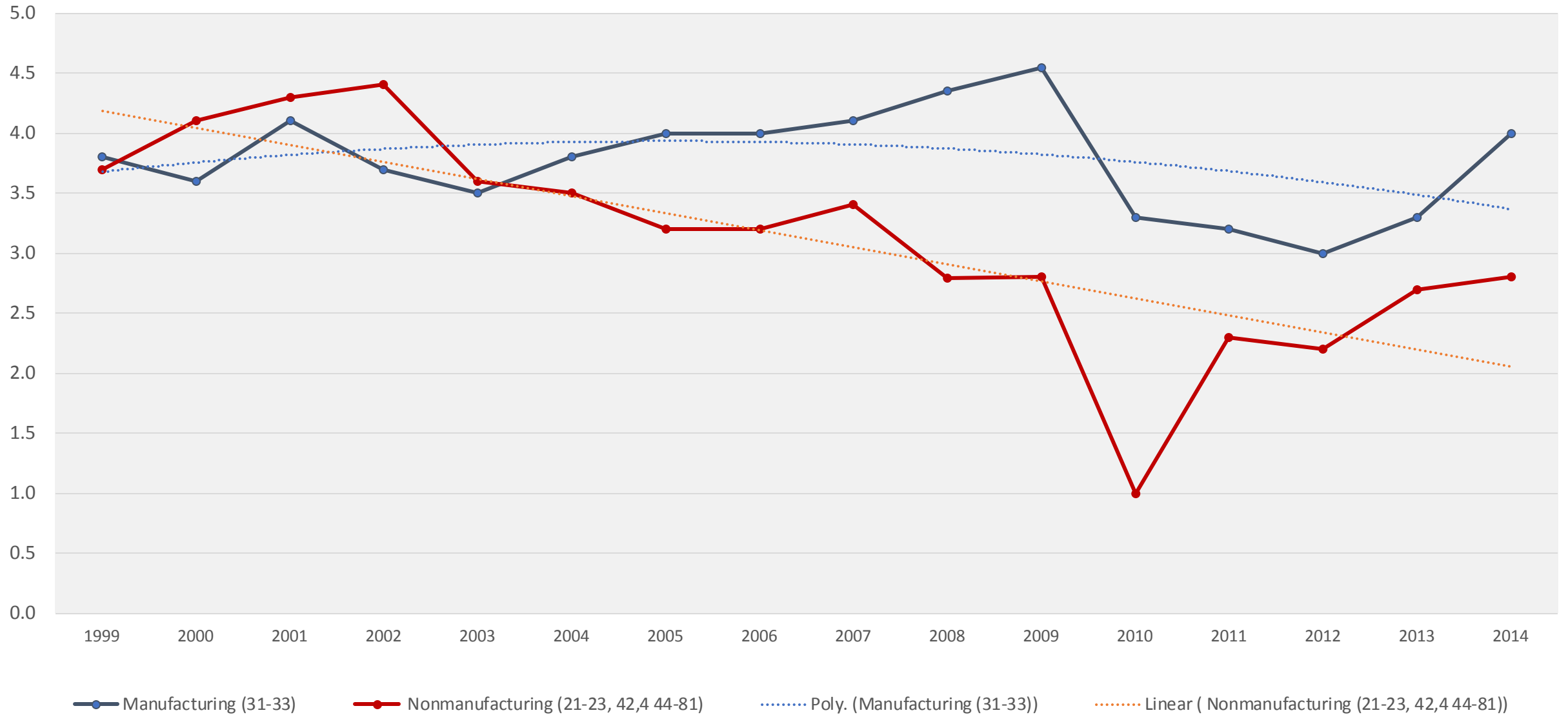


R&D Intensity in Manufacturing and Selected Industries, 1970-1998

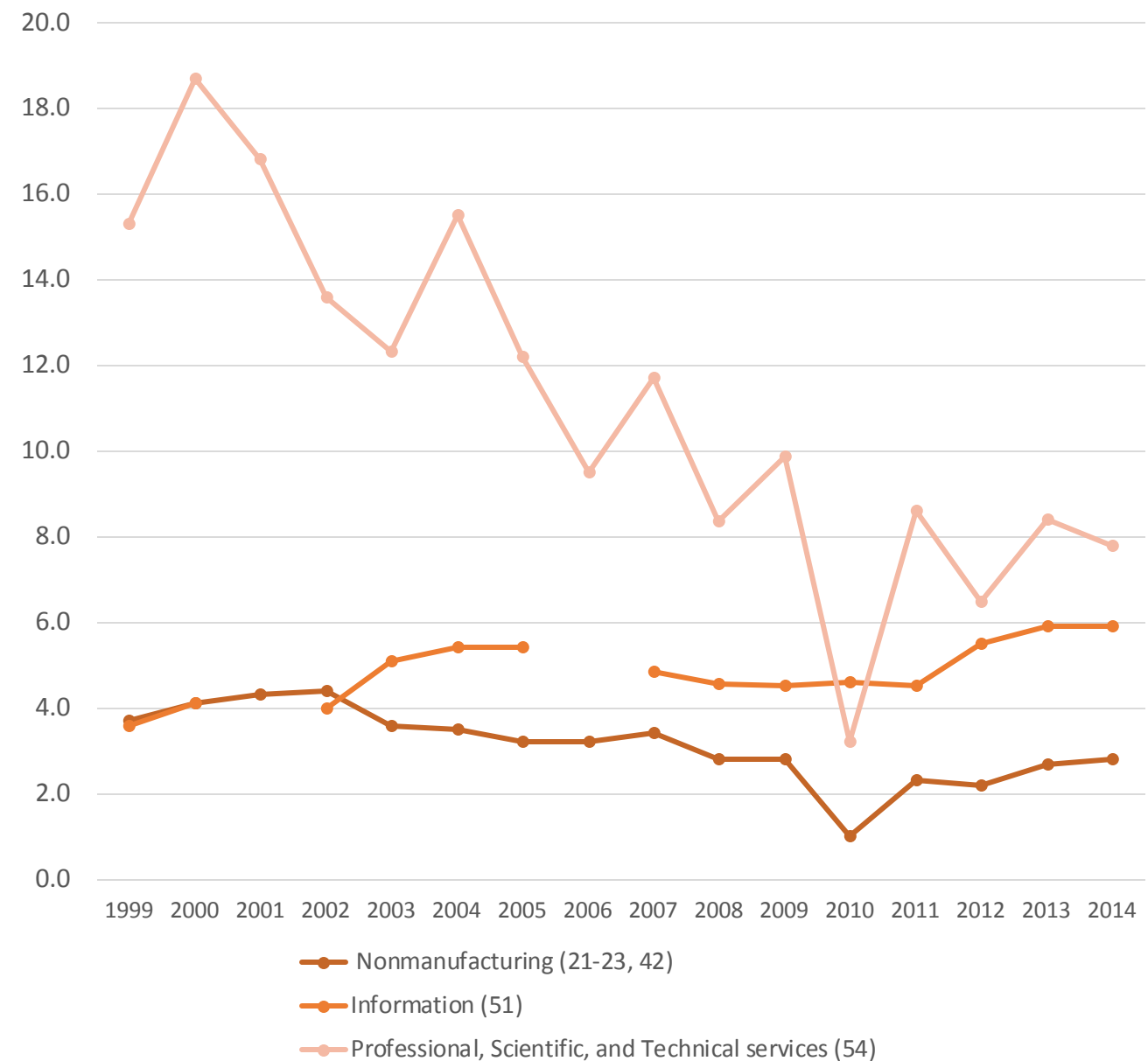
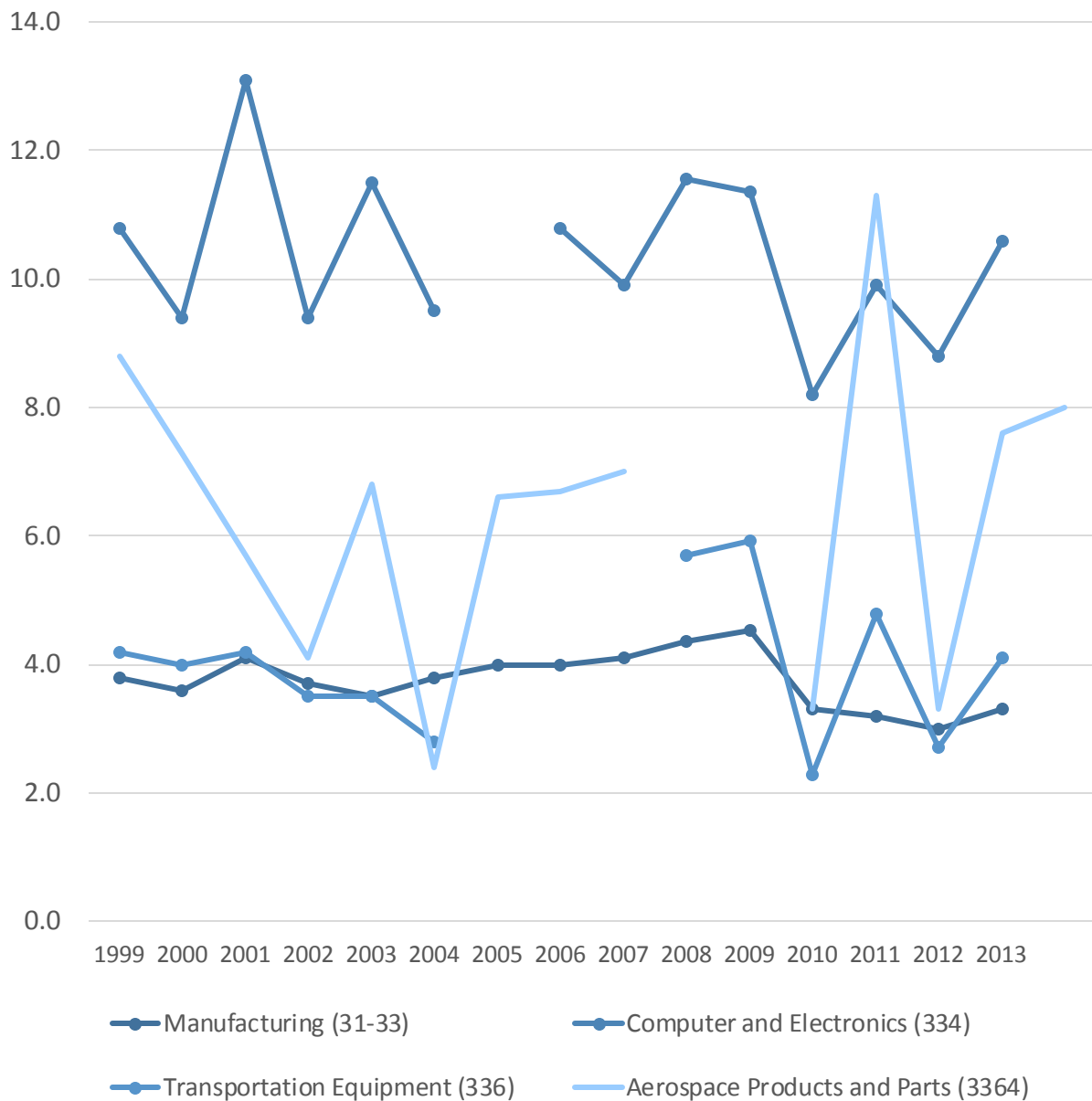


- Manufacturing
- Aircraft and Missiles (372,376)
- Transportation (37)
- Electrical Equipment (36)
- Linear (Manufacturing)
- Linear (Transportation (37))
- Poly. (Aircraft and Missiles (372,376))
- Poly. (Electrical Equipment (36))

Manufacturing and Non-Manufacturing R&D Intensity, 1999-2014



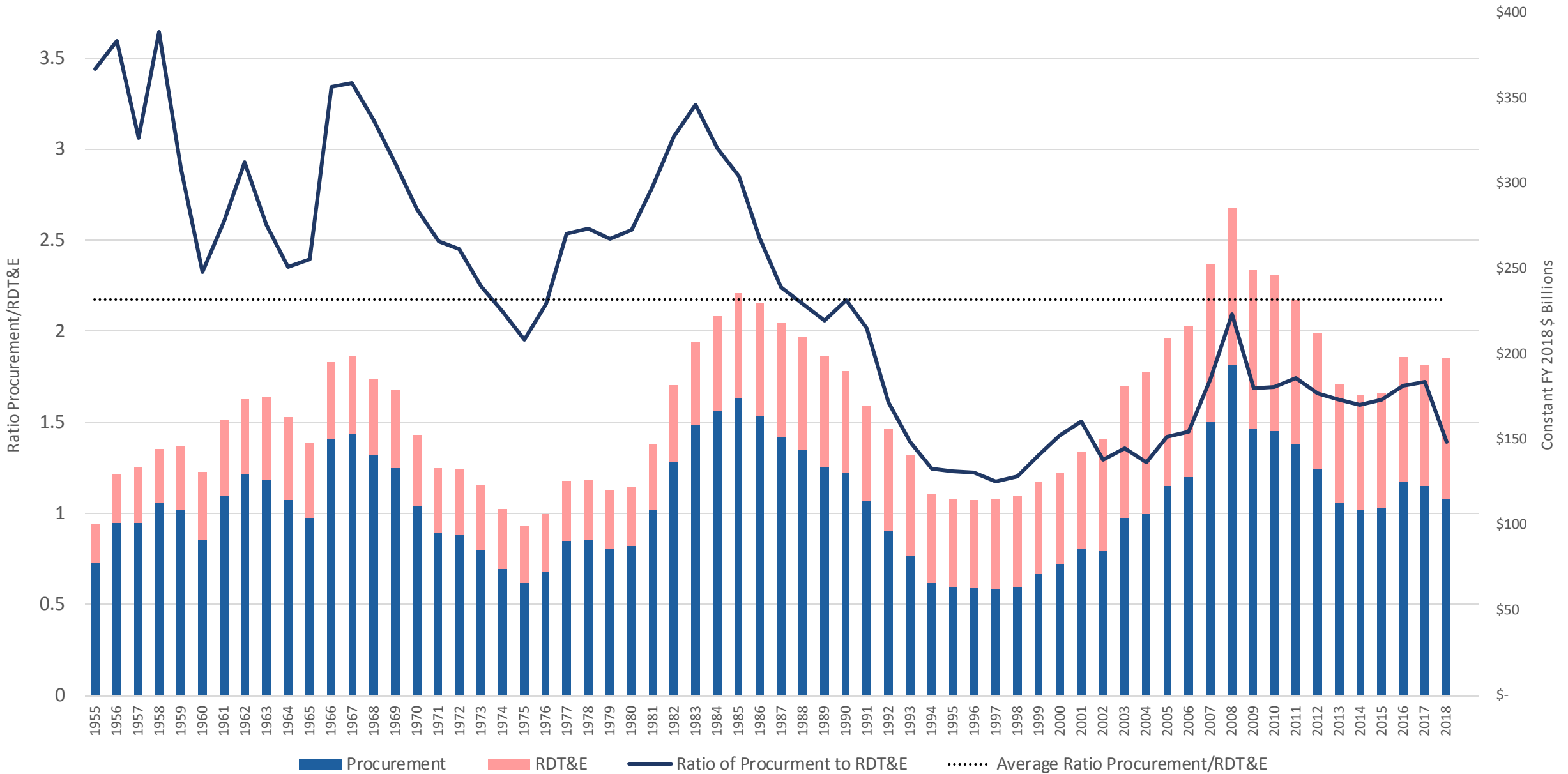
R&D Intensity in Select Industries, 1999-2014



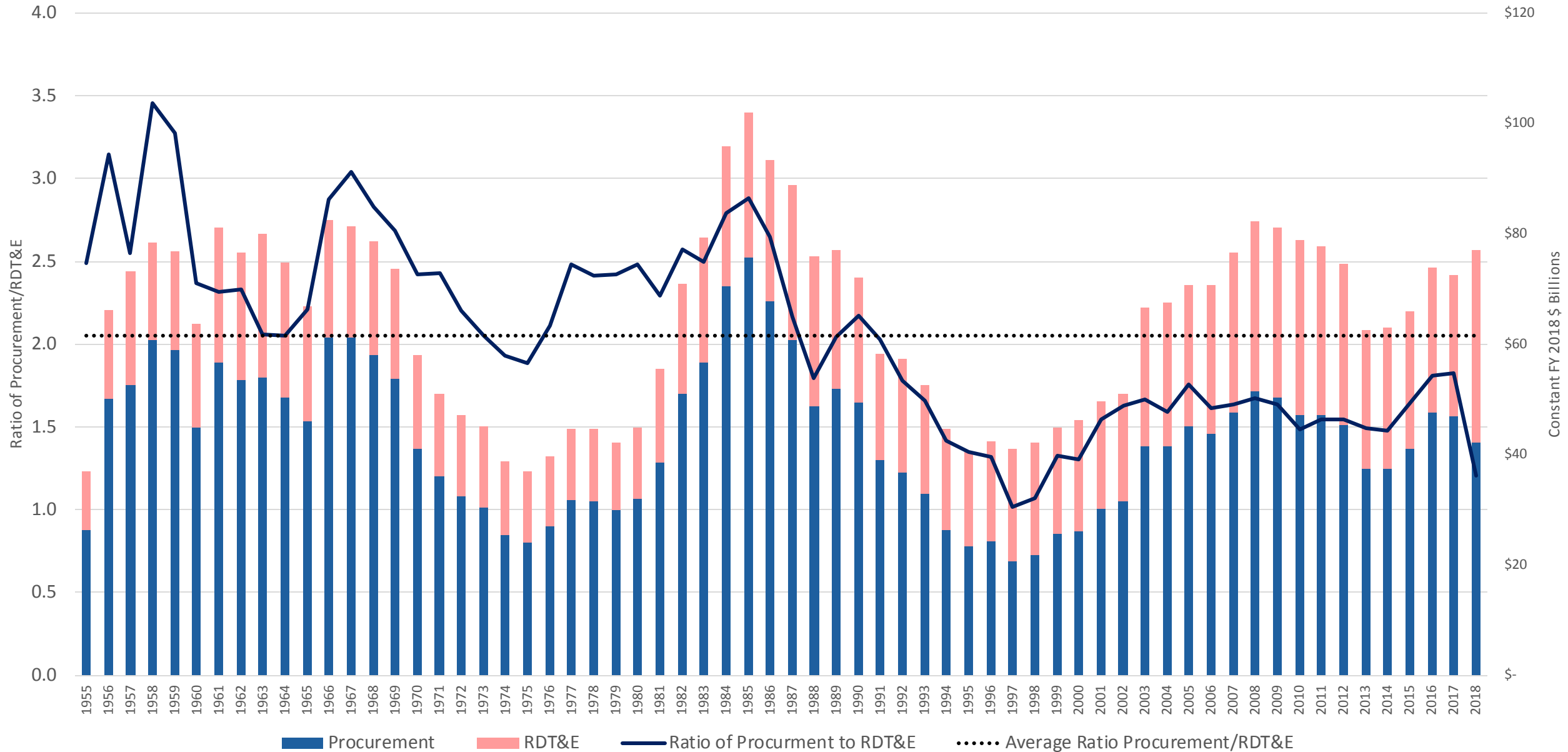
Research Question 2: What are the historical trends in the ratio of procurement to R&D funding in the military Services? Are there significant differences between the military Services?



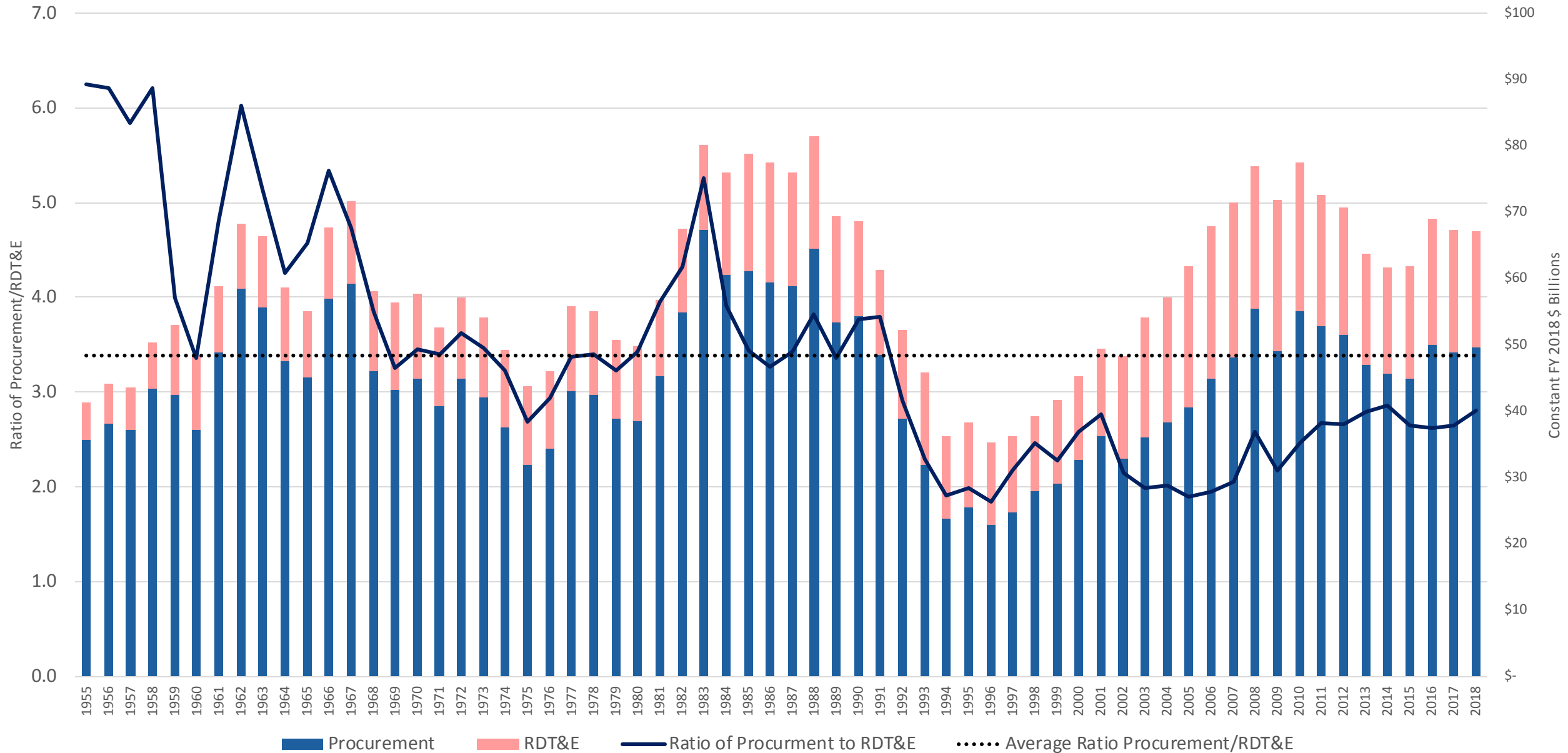
Overall DoD Ratio of Procurement to RDT&E, 1955-2018



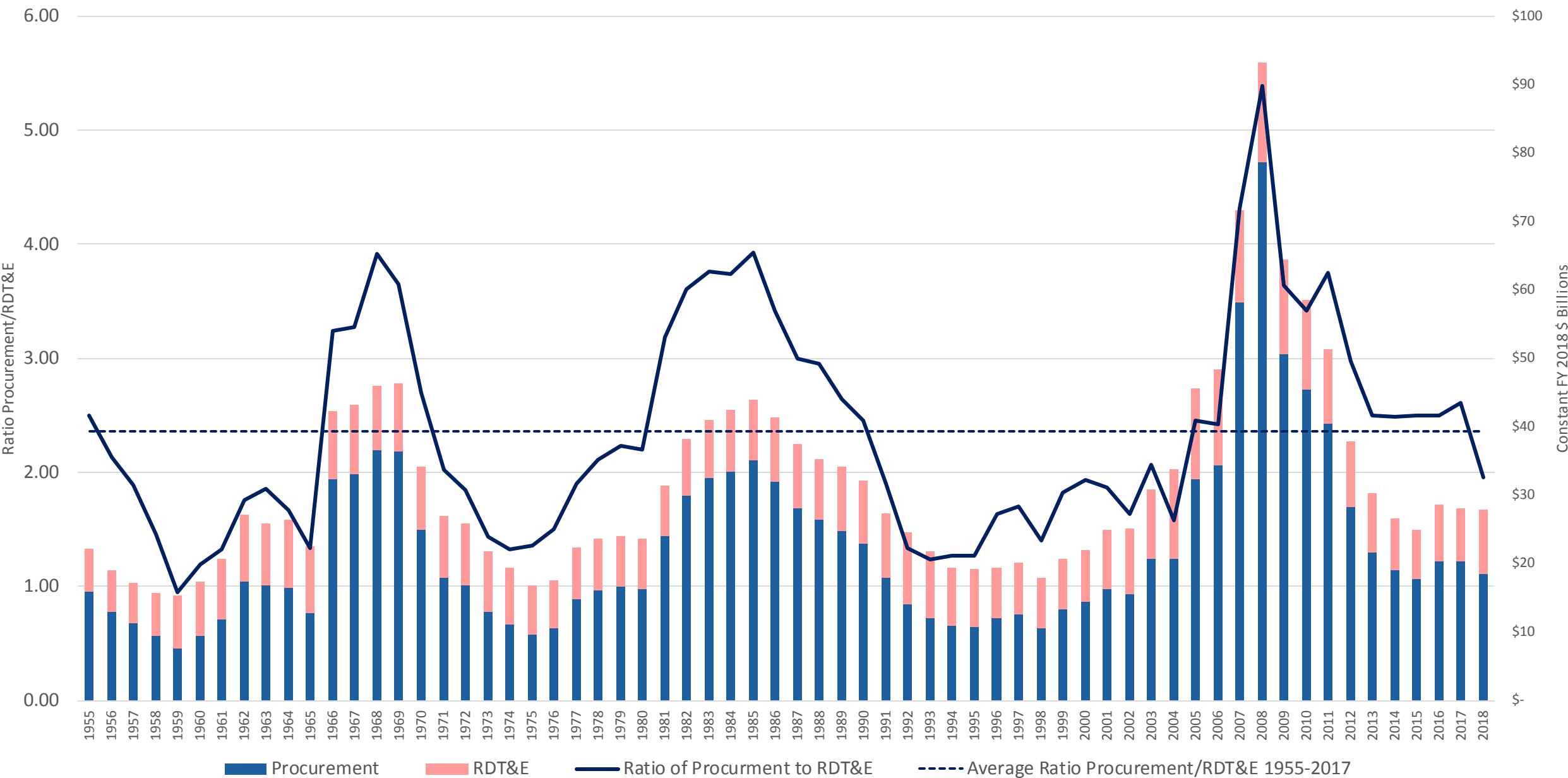
Air Force Ratio of Procurement to RDT&E, 1955-2018



Navy Ratio of Procurement to RDT&E, 1955-2018



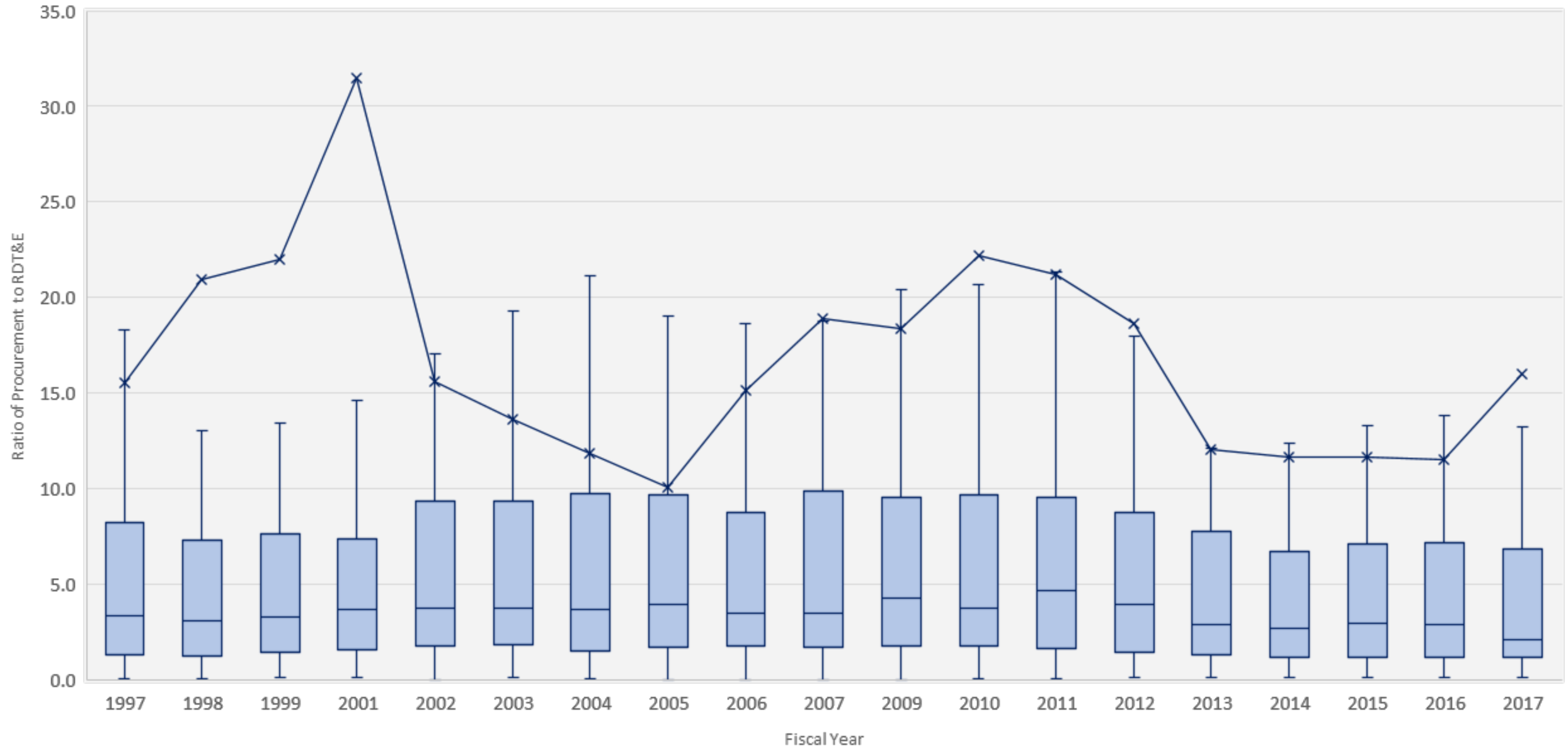
Army Ratio of Procurement to RDT&E, 1955-2018



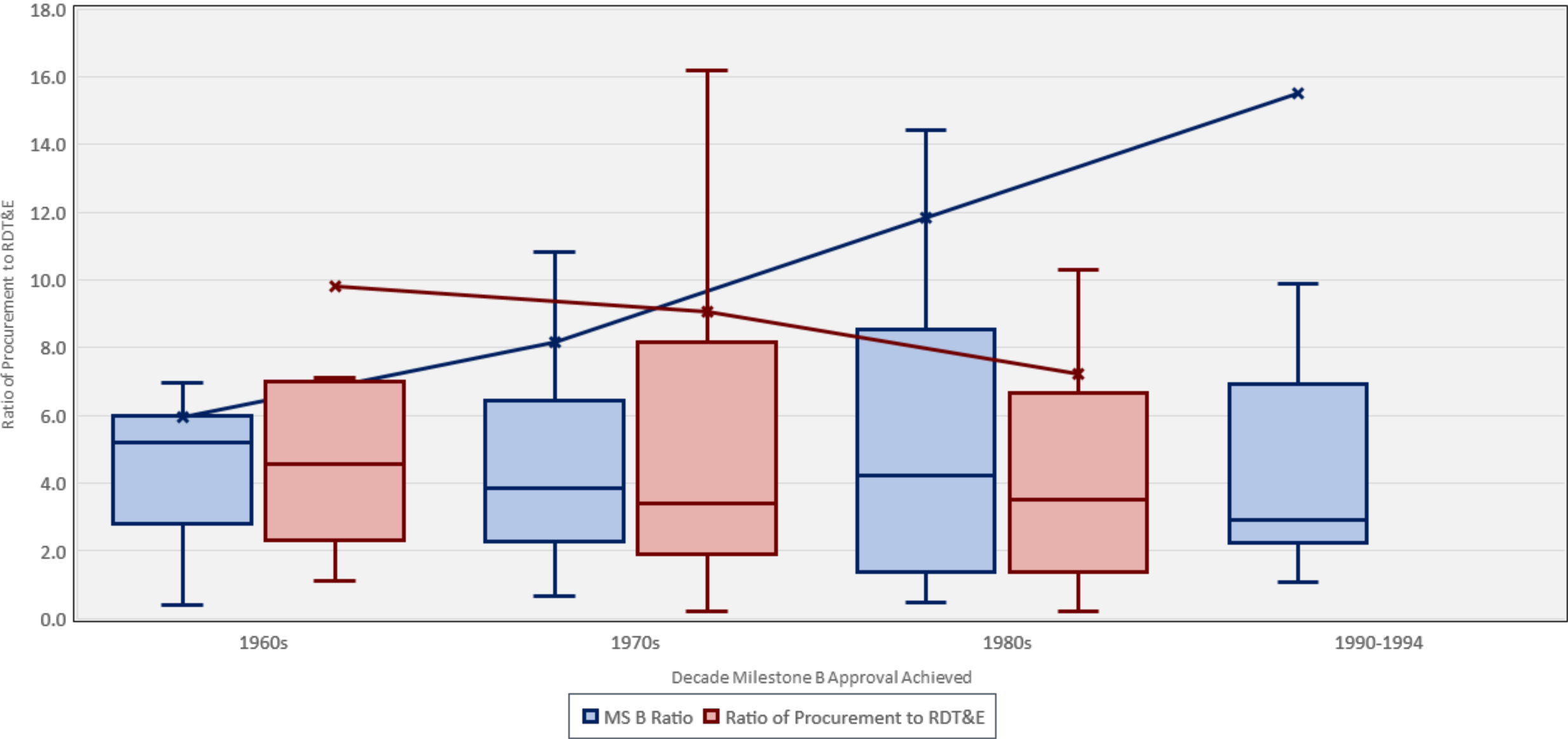
Research Question 3: What are the top-line historical trends in the ratio of procurement to RDT&E funding for the MDAP portfolio?



Ratio of Procurement to RDT&E Across the MDAP Portfolio, 1997-2017



Estimated Ratio of Procurement to RDT&E at Milestone B vs. Actual Ratio





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