Return on investment (ROI) and total factor productivity (TFP) for federal R&D funding:

- Building and operating particle physics experiments estimated ROI ≥ **1200%** [1]
  - Training STEM workers, accelerating new technologies (e.g. computing, superconducting magnets)
- Overall R&D has estimated ROI of **400–2000%** [2]
  - Federal nondefense R&D → 1/5 of TFP growth since WWII [3]
  - Decreasing public R&D spending → 1/3 of decline in TFP growth since WWII [4]

[1] J. Womersley, "Impact of the Tevatron on Technology and Innovation", Fermilab, 2012.
[2] B. F. Jones and L. H. Summers, "A Calculation of the Social Returns to Innovation", NBER (2020) 27863.
[3] A. J. Fieldhouse and K. Mertens, "The Returns to Government R&D: Evidence from U.S. Appropriations Shocks", Federal Reserve Bank of Dallas (2023) 2305.
[4] A. Dyèvre, "Public R&D Spillovers and Productivity Growth", London School of Economics, 2020.