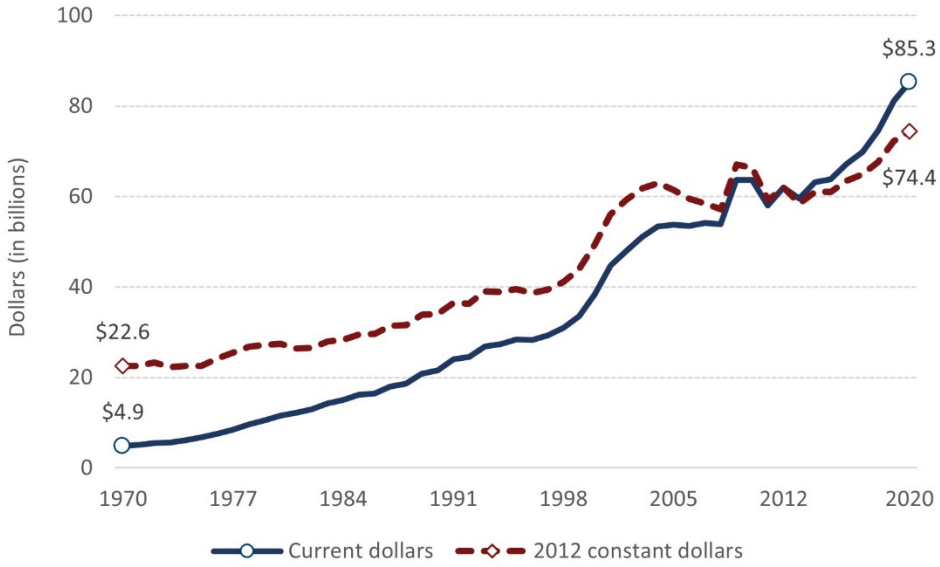
Growth in Federal Research Obligations for Life Sciences Between 1970 and 2020

InfoBytes

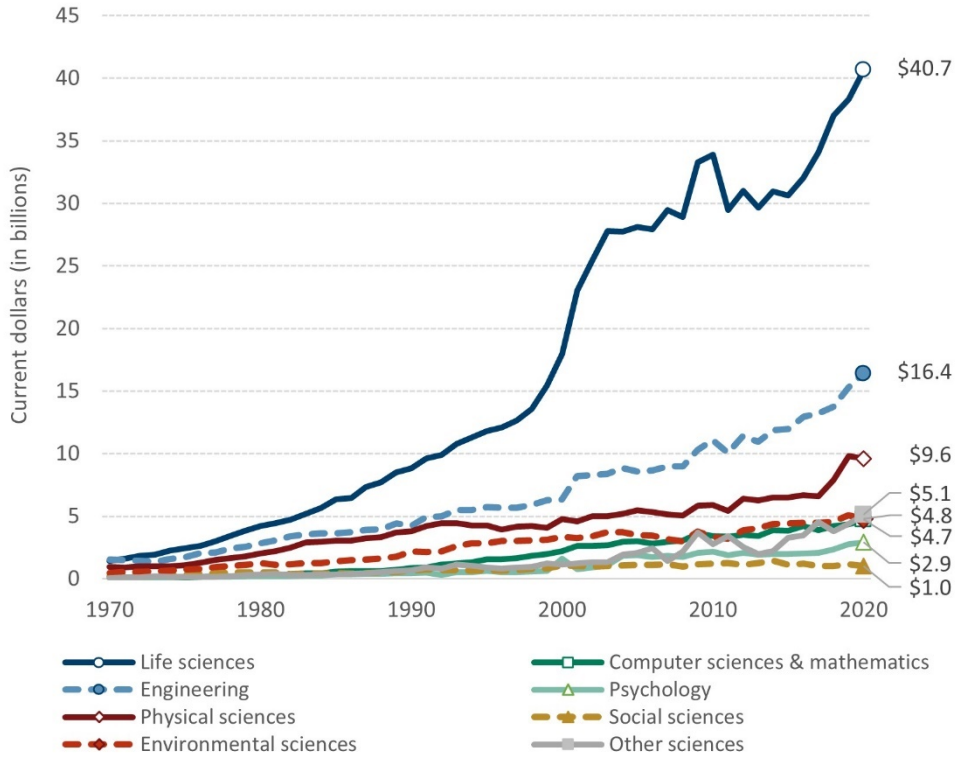
Federal obligations for research in all fields of science and engineering: 1970 to 2020



On a current dollar basis, federal obligations for all fields of science and engineering research increased from $4.9 billion in 1970 to $85.3 billion in 2020. When adjusted for inflation, federal obligations for all research more than tripled during the same period, from $22.6 billion to $74.4 billion.

Note: Years are fiscal years. 2020 data are preliminary estimates. Research obligations include both basic research and applied research. Development obligations are not included. For more information, see https://ncses.nsf.gov/pubs/nsf21328.
Source: National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.

Federal obligations for research in science and engineering, by broad field: 1970 to 2020



By field, federal obligations were highest for life sciences research ($40.7 billion) followed by engineering ($16.4 billion) and physical sciences ($9.6 billion).

The increase in federal obligations for life sciences in the late 1990s and early 2000s can be attributed largely to the "NIH doubling" – a 5-year plan (1998 to 2003) between the Congressional and Executive branches to stimulate biomedical research.

(See: https://fas.org/sgp/crs/misc/R43341.pdf)

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Source: National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.

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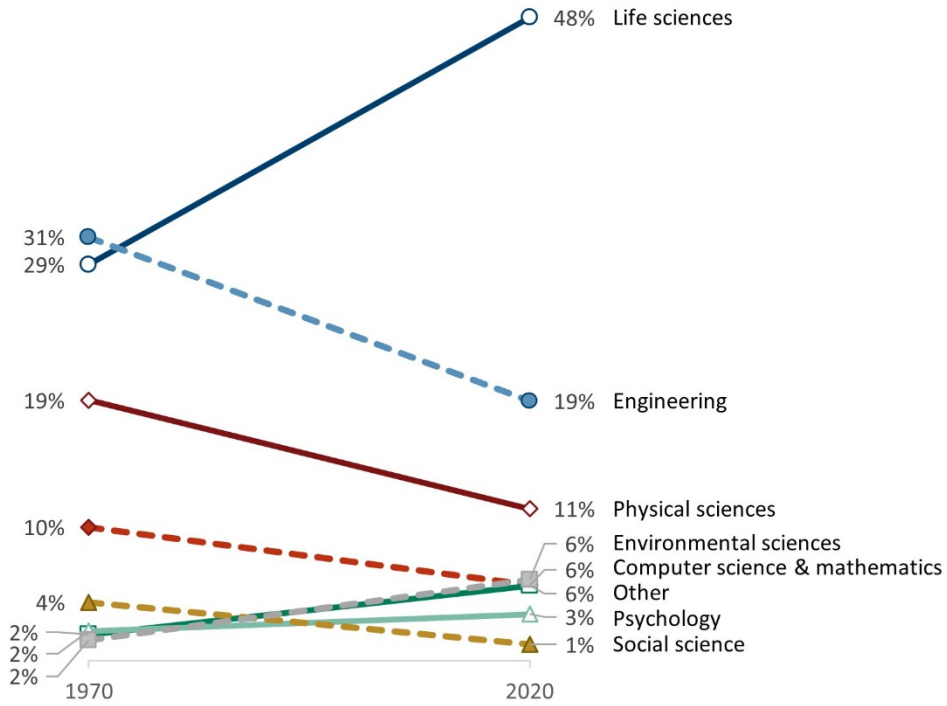
Percent of total federal obligations for research in science and engineering, by broad field: 1970 and 2020

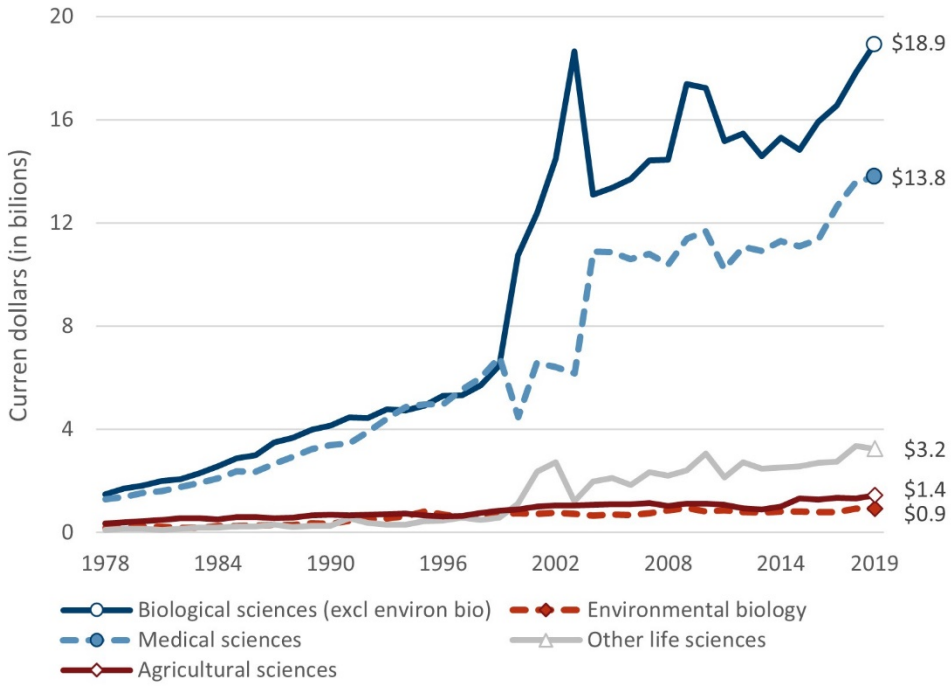


Although today life sciences constitute the largest share of all federal obligations for research, this was not always the case.

While life sciences amounted to 48% of all federally funded research dollars in 2020, it constituted only 29% in 1970. By comparison, obligations for engineering in 1970 constituted 31% of federal research dollars compared with 19% in 2020.

Note: Years are fiscal years. Because of rounding, detail may not add to total. Percentages are computed using actual dollars reported. Research obligations include both basic and applied research. Development obligations are not included.
Source: National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.

Federal obligations for research in life sciences, by detailed field: 1978 to 2019



Federal research obligations for life sciences are distributed among multiple detailed fields, including biological, medical, and agricultural sciences, and environmental biology.

In 2019, biological and medical sciences totaled $18.9 billion and $13.8 billion in obligations, respectively. Considerably less were obligated to agricultural sciences ($1.4 billion) and environmental biology ($0.9 billion).

Note: Years are fiscal years. Prior to 1978 data for agricultural sciences, biological science, and environmental biology were collected under a single category, biological and agricultural sciences. In 2004 NIH revised its financial database; as a result, NIH data for 2004 and later years are not directly comparable with data for 2003 and earlier years. Detailed Fields of Science and Engineering are not available for 2020 preliminary estimates. Research obligations include both basic research and applied research.
Source: National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.

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