



TABLE 91

**Federal obligations for research, by detailed field of R&D: FYs 2013–22**

(Dollars in millions)

Field	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 (preliminary)
Chemical engineering	419	535	375	373	302	692	454	788	733	NA
Civil engineering	447	445	458	462	606	476	566	476	649	NA
Electrical, electronics, and communications engineering (formerly Electrical engineering)	1,163	1,240	897	1,063	1,103	1,010	971	881	887	NA
Industrial and manufacturing engineering	NA	NA	NA	NA	NA	NA	NA	NA	291	NA
Mechanical engineering	549	503	324	374	450	498	630	523	289	NA
Metallurgical and materials engineering (formerly Metallurgy and materials engineering)	1,729	1,769	1,757	1,975	1,941	1,915	1,843	704	811	NA
Other engineering	4,062	4,894	5,688	6,237	6,262	7,253	8,787	7,841	7,957	NA
Other fields	NA	NA	NA	NA	NA	NA	NA	NA	11,874	7,094
Business management and business administration	NA	NA	NA	NA	NA	NA	NA	NA	120	NA
Communication and communications technologies	NA	NA	NA	NA	NA	NA	NA	NA	12	NA
Education research	NA	NA	NA	NA	NA	NA	NA	NA	987	NA
Humanities, including History	NA	NA	NA	NA	NA	NA	NA	NA	*	NA
Law	NA	NA	NA	NA	NA	NA	NA	NA	7	NA
Social work	NA	NA	NA	NA	NA	NA	NA	NA	0	NA
Visual and performing arts	NA	NA	NA	NA	NA	NA	NA	NA	0	NA
All other fields	NA	NA	NA	NA	NA	NA	NA	NA	10,748	NA
Other sciences nec	1,999	2,218	3,299	3,461	4,521	3,812	4,405	5,773	NA	NA

\* = amount greater than \$0 but less than \$500,000. NA = not available; data were not collected at that level for that fiscal year.

nec = not elsewhere classified.

<sup>a</sup> As of volume 71 (FYs 2021–22), Other social sciences no longer includes Education research or Law; those categories were moved to Other fields.

**Note(s):**

Because of rounding, detail may not add to total. FYs 2020, 2021, and 2022 obligations include additional funding provided by supplemental COVID-19 pandemic-related appropriations (e.g., Coronavirus Aid, Relief, and Economic Security [CARES] Act). As of volume 71 (FYs 2021–22), the fields of R&D (formerly, "fields of science and engineering") were revised for consistency with other National Center for Science and Engineering Statistics surveys; some fields were added, merged, or split, and some fields were renamed. Therefore, the data are not directly comparable with totals reported in previous years. See technical table A-3 for additional notes associated with the taxonomy changes to the fields listed in this table.

**Source(s):**

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