

TABLE 38

**Federal obligations for experimental development, by detailed field of R&D: FYs 2021–22**

(Dollars in thousands)

Field	2021	2022 (preliminary)
All fields	103,907,229	100,594,656
Computer and information sciences	3,174,544	3,665,177
Geosciences, atmospheric sciences, and ocean sciences	2,054,665	823,525
Atmospheric science and meteorology	1,603,092	NA
Geological and earth sciences	88,122	NA
Ocean sciences and marine sciences	115,932	NA
Other geosciences, atmospheric sciences, and ocean sciences	247,519	NA
Life sciences	39,393,808	31,701,993
Agricultural sciences	62,072	NA
Biological and biomedical sciences	36,941,024	NA
Health sciences	2,199,623	NA
Natural resources and conservation	53,798	NA
Other life sciences	137,290	NA
Mathematics and statistics	291,595	269,168
Physical sciences	2,122,091	3,608,794
Astronomy and astrophysics	69,107	NA
Chemistry	528,513	NA
Materials science	107,667	NA
Physics	715,412	NA
Other physical sciences	701,393	NA
Psychology	363,912	401,193
Biological aspects	0	NA
Social aspects	0	NA
Other psychological sciences	363,912	NA
Social sciences	139,135	133,015
Anthropology	686	NA
Economics	13,905	NA
Political science and government	12,149	NA
Sociology, demography, and population studies	1,518	NA
Other social sciences	110,877	NA
Engineering	43,218,196	48,022,467
Aerospace, aeronautical, and astronautical engineering	17,845,476	NA
Bioengineering and biomedical engineering	500,892	NA
Chemical engineering	564,991	NA
Civil engineering	524,262	NA
Electrical, electronics, and communications engineering	2,022,922	NA
Industrial and manufacturing engineering	773,775	NA
Mechanical engineering	686,038	NA
Metallurgical and materials engineering	830,883	NA
Other engineering	19,468,957	NA
Other fields	13,149,281	11,969,324
Business management and business administration	2,233,179	NA
Communication and communications technologies	533,196	NA
Education research	108,016	NA
Humanities	0	NA
Law	135	NA
Social work	0	NA
Visual and performing arts	0	NA
All other fields	10,274,754	NA

NA = not available; data were not collected at that level for that fiscal year.

**Note(s):**

Because of rounding, detail may not add to total. FYs 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, FYs 2021–22.