

Table 1**Annual change in U.S. R&D expenditures and gross domestic product, by performing sectors: 1992–2023**

(Percent)

R&D expenditures and gross domestic product	Longer-term trends			Most recent years												
	1992–2002	2002–12	2012–22	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22 ^a	2022–23 ^b
Current dollars																
Total R&D, all performers	5.3	4.6	7.5	4.8	1.8	4.7	4.8	3.9	5.5	6.1	9.1	10.2	7.7	10.1	13.1	5.4
Business	5.2	4.5	8.7	5.4	2.8	6.7	5.6	4.4	6.7	6.9	9.8	11.8	9.0	12.0	14.6	5.4
Federal government	3.9	3.9	3.2	5.4	-2.6	-2.0	3.1	0.3	-3.1	2.7	11.0	7.6	3.6	2.4	7.3	2.9
Federal intramural	4.1	3.6	2.8	9.3	-2.7	-1.8	4.1	-1.7	-7.1	1.5	14.2	8.4	3.4	0.6	7.8	-1.2
FFRDCs	3.4	4.5	4.0	-1.4	-2.4	-2.5	1.3	4.2	4.2	4.6	6.1	6.3	4.1	5.6	6.5	9.8
Nonfederal government ^c	NA	NA	0.8	0.4	-4.2	-6.8	-5.9	2.0	4.3	1.9	1.7	4.9	1.2	0.3	5.0	3.1
Higher education	6.6	5.2	4.5	3.4	1.3	1.0	1.3	3.7	4.9	4.9	5.3	4.3	3.4	6.1	10.0	8.2
Nonprofit organizations	9.1	4.1	4.7	-1.3	-0.3	4.1	6.1	5.0	9.6	3.9	4.2	4.4	4.7	1.2	3.8	0.5
Gross domestic product	5.3	4.0	4.8	3.7	4.2	3.9	4.3	3.9	2.8	4.3	5.3	4.3	-0.9	10.9	9.8	6.6
Constant 2017 dollars																
Total R&D, all performers	3.4	2.4	5.0	2.7	-0.1	3.0	3.0	2.9	4.5	4.2	6.6	8.4	6.3	5.3	5.5	1.7
Business	3.3	2.4	6.2	3.3	0.9	4.9	3.8	3.5	5.7	5.0	7.3	10.0	7.6	7.1	6.9	1.7
Federal government	2.0	1.8	0.8	3.2	-4.4	-3.7	1.4	-0.6	-4.1	0.9	8.6	5.9	2.3	-2.1	0.2	-0.7
Federal intramural	2.2	1.5	0.4	7.1	-4.5	-3.4	2.3	-2.6	-8.0	-0.3	11.6	6.6	2.0	-3.8	0.6	-4.6
FFRDCs	1.5	2.3	1.6	-3.3	-4.2	-4.1	-0.5	3.2	3.2	2.8	3.7	4.6	2.7	0.9	-0.6	6.0
Nonfederal government ^c	NA	NA	-1.6	-1.6	-5.9	-8.3	-7.5	1.0	3.3	0.1	-0.6	3.2	-0.2	-4.0	-2.0	-0.5
Higher education	4.6	3.0	2.0	1.4	-0.5	-0.6	-0.4	2.7	3.9	3.1	2.9	2.6	2.1	1.5	2.7	4.5
Nonprofit organizations	7.0	1.9	2.2	-3.3	-2.1	2.3	4.3	4.0	8.5	2.0	1.8	2.7	3.4	-3.2	-3.1	-3.0
Gross domestic product	3.4	1.9	2.4	1.6	2.3	2.1	2.5	2.9	1.8	2.5	3.0	2.6	-2.2	6.1	2.5	2.9

NA = not available.

FFRDC = federally funded research and development center.

^a Some data for 2022 are preliminary and may be revised later.^b The R&D data for 2023 include estimates and are likely to be revised later.^c Survey data on state internal R&D performance were not available prior to 2006; data for 2008 were not collected.**Note(s):**

The longer-term trend rates are calculated as compound annual growth rates.

Source(s):

National Center for Science and Engineering Statistics, National Patterns of R&D Resources (annual series).