

**Table 2****Annual changes in U.S. R&D expenditures and gross domestic product, by performing sector: 1990–2020**

(Percent and current and constant 2012 dollars)

Expenditures and gross domestic product	Longer-term trends			Most recent years									
	1990–2000	2000–10	2010–19	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20 <sup>a</sup>
Current \$													
Total R&D, all performers	5.8	4.3	5.7	4.8	1.8	4.7	4.8	3.9	5.5	6.2	9.2	10.3	6.2
Business	6.4	3.4	6.7	5.4	2.8	6.7	5.6	4.4	6.7	6.9	9.8	11.8	6.8
Federal government	1.9	5.9	2.4	5.4	-2.6	-2.0	3.1	0.3	-3.1	2.7	11.0	7.6	4.6
Federal intramural <sup>a</sup>	2.1	5.2	2.5	9.3	-2.7	-1.8	4.1	-1.7	-7.1	1.5	14.2	8.4	5.2
FFRDCs	1.7	7.3	2.2	-1.4	-2.4	-2.5	1.3	4.2	4.2	4.6	6.1	6.3	3.6
Nonfederal government <sup>b</sup>	NA	NA	-0.3	0.4	-4.2	-6.8	-5.9	2.0	4.3	1.9	1.7	5.0	3.1
Higher education	5.9	6.9	3.4	3.4	1.3	1.1	1.3	3.7	4.9	4.9	5.3	4.4	3.8
Nonprofit organizations <sup>c</sup>	8.8	6.6	4.6	-1.3	-0.3	4.1	6.1	5.0	9.6	6.0	6.0	6.7	5.5
Gross domestic product	5.6	3.9	4.0	3.7	4.2	3.6	4.2	3.7	2.7	4.2	5.4	4.1	-2.2
Constant 2012 \$													
Total R&D, all performers	3.7	2.1	3.8	2.7	-0.1	2.9	2.9	2.9	4.5	4.2	6.6	8.3	4.9
Business	4.3	1.2	4.8	3.3	0.9	4.9	3.7	3.4	5.6	4.9	7.2	9.8	5.5
Federal government	-0.1	3.8	0.6	3.2	-4.4	-3.7	1.2	-0.7	-4.1	0.8	8.5	5.7	3.3
Federal intramural <sup>a</sup>	0.0	3.0	0.7	7.1	-4.5	-3.5	2.2	-2.7	-8.0	-0.4	11.5	6.5	3.9
FFRDCs	-0.4	5.1	0.5	-3.4	-4.2	-4.1	-0.6	3.1	3.1	2.7	3.6	4.5	2.3
Nonfederal government <sup>b</sup>	NA	NA	-2.0	-1.7	-5.9	-8.4	-7.6	0.9	3.3	0.0	-0.7	3.2	1.9
Higher education	3.7	4.6	1.6	1.3	-0.5	-0.7	-0.6	2.6	3.8	2.9	2.9	2.5	2.5
Nonprofit organizations <sup>c</sup>	6.6	4.4	2.8	-3.3	-2.1	2.3	4.2	4.0	8.5	4.0	3.5	4.8	4.2
Gross domestic product	3.4	1.8	2.2	1.5	2.3	1.8	2.3	2.7	1.7	2.3	2.9	2.3	-3.4

NA = not available.

FFRDC = federally funded R&amp;D center.

<sup>a</sup> The R&D data for 2020 include estimates and are likely to later be revised.<sup>b</sup> Survey data on state internal R&D performance were not available prior to 2006; data for 2008 were not collected.<sup>c</sup> Some components of the R&D performed by nonprofit organizations are estimated and may later be revised.**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&amp;D Resources (annual series).