

Table 8. International R&D expenditures (total and non-defense) in constant dollars and as a percentage of GDP: 1981–98

Year	United States	Japan ¹	Germany ²	France	United Kingdom	Italy	Canada	United States	Japan ¹	Germany ²	France	United Kingdom	Italy	Canada
	Total R&D expenditures							Total non-defense R&D expenditures						
	Billions of constant 1992 dollars ³													
1981.....	109.5	NA	23.4	16.6	17.3	6.9	5.3	81.7	NA	22.6	13.2	13.5	6.7	5.1
1982.....	115.2	36.9	24.2	17.7	17.1	7.1	5.7	82.8	37.4	23.4	14.3	NA	7.0	5.5
1983.....	123.1	40.0	24.7	18.3	16.9	7.6	5.8	86.5	40.3	23.8	15.1	13.0	7.4	5.6
1984.....	134.8	43.5	25.5	19.5	17.6	8.3	6.3	94.1	43.3	24.6	16.1	NA	8.0	6.1
1985.....	146.1	48.3	28.3	20.3	18.4	9.6	6.9	100.8	48.0	27.0	16.8	14.5	9.1	6.6
1986.....	149.3	49.0	29.1	20.6	19.3	9.9	7.2	102.2	48.6	27.9	16.9	15.6	9.4	6.9
1987.....	152.0	52.5	31.3	21.5	19.7	10.7	7.2	103.7	52.1	29.9	17.5	16.2	10.3	7.0
1988.....	155.5	56.6	32.4	22.5	20.3	11.4	7.4	108.1	56.1	31.0	18.3	17.1	10.8	7.2
1989.....	158.2	62.0	33.7	23.9	20.9	12.0	7.6	114.0	61.5	32.3	19.7	17.6	11.4	7.3
1990.....	162.4	67.3	34.1	25.4	21.3	12.8	8.0	121.2	66.7	32.5	20.5	18.0	12.4	7.8
1991.....	165.3	68.8	36.6	25.7	19.6	12.4	8.1	128.0	68.2	35.2	21.2	16.6	11.9	7.9
1992.....	165.2	69.2	36.8	26.4	20.6	12.3	8.3	129.5	68.4	35.5	22.3	17.8	11.9	NA
1993.....	161.2	67.4	35.5	25.8	20.7	11.2	8.8	126.4	66.6	34.4	22.0	17.9	10.7	8.6
1994.....	160.7	66.4	35.5	25.2	20.7	10.8	9.1	128.6	65.6	34.4	21.8	18.0	10.3	NA
1995.....	170.4	73.6	36.6	25.7	20.1	10.7	9.7	138.6	72.6	35.4	22.4	17.7	10.4	9.5
1996.....	179.4	77.9	36.4	25.4	20.4	11.0	9.9	147.7	77.1	35.0	22.2	18.0	10.9	NA
1997.....	189.4	80.9	37.6	25.0	20.3	11.9	10.3	157.2	NA	36.3	NA	17.9	11.7	10.1
1998 prelim.	201.6	NA	38.6	NA	NA	12.3	10.6	169.4	NA	NA	NA	NA	NA	10.4
As a percent of national GDP														
1981.....	2.32	NA	2.43	1.97	2.37	0.88	1.25	1.73	NA	2.34	1.57	1.84	0.85	1.21
1982.....	2.49	2.22	2.52	2.06	NA	0.91	1.40	1.79	2.21	2.44	1.66	NA	0.89	1.35
1983.....	2.56	2.35	2.52	2.11	2.19	0.95	1.37	1.80	2.34	2.43	1.74	1.69	0.93	1.32
1984.....	2.62	2.43	2.51	2.21	NA	1.01	1.41	1.83	2.41	2.42	1.82	NA	0.97	1.35
1985.....	2.74	2.58	2.72	2.25	2.23	1.13	1.45	1.89	2.56	2.60	1.87	1.76	1.07	1.40
1986.....	2.72	2.55	2.73	2.23	2.25	1.13	1.49	1.86	2.53	2.61	1.84	1.82	1.08	1.43
1987.....	2.69	2.62	2.88	2.27	2.19	1.19	1.44	1.83	2.60	2.75	1.85	1.79	1.15	1.38
1988.....	2.65	2.66	2.86	2.28	2.14	1.22	1.39	1.84	2.63	2.74	1.85	1.80	1.15	1.34
1989.....	2.61	2.77	2.87	2.33	2.15	1.24	1.39	1.88	2.75	2.75	1.92	1.81	1.18	1.34
1990.....	2.65	2.85	2.75	2.41	2.18	1.30	1.47	1.97	2.83	2.62	1.95	1.84	1.26	1.41
1991.....	2.72	2.82	2.61	2.41	2.11	1.24	1.53	2.11	2.79	2.51	1.98	1.79	1.19	1.48
1992.....	2.65	2.76	2.48	2.42	2.13	1.20	1.54	2.07	2.73	2.39	2.04	1.84	1.15	NA
1993.....	2.52	2.68	2.42	2.45	2.15	1.14	1.60	1.98	2.65	2.34	2.10	1.86	1.09	1.56
1994.....	2.43	2.63	2.32	2.38	2.11	1.06	1.60	1.95	2.60	2.25	2.05	1.84	1.01	NA
1995.....	2.52	2.77	2.31	2.34	2.02	1.01	1.58	2.05	2.73	2.23	2.04	1.78	0.98	1.55
1996.....	2.57	2.83	2.30	2.32	1.95	1.02	1.60	2.11	2.80	2.21	2.03	1.72	1.01	NA
1997.....	2.60	2.92	2.31	2.23	1.87	1.08	1.60	2.16	NA	2.23	NA	1.65	1.07	1.57
1998 prelim.	2.67	NA	2.33	NA	NA	1.11	1.60	2.24	NA	NA	NA	NA	NA	1.57

¹ Due to changes in methodology, data on Japanese R&D in 1996 and later years may not be consistent with data in earlier years.

² Germany's data for 1981-90 are for West Germany.

³ Conversions of foreign currencies to U.S. dollars are calculated with OECD purchasing power parity exchange rates. Constant 1992 dollars are based on the U.S. GDP implicit price deflator.

Key: GDP = Gross Domestic Product; NA = not available

SOURCES: Organisation for Economic Co-operation and Development, Main Science and Technology Indicators data base (Paris, August 1999) and National Science Foundation/SRS.