

Appendix table 5-54.

U.S. patent citations to scientific literature, by field and by country/region: 1987–2000

(Percent share)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Cited field														
Total (number)	13,459	15,138	19,417	19,422	23,390	28,077	38,493	40,266	46,961	66,129	102,111	143,541	143,215	142,008
Total (percentage)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Clinical medicine	23.1	23.4	22.7	24.1	23.8	24.7	25.9	24.3	26.8	27.7	29.9	30.5	30.0	29.2
Biomedical research	24.2	25.1	26.8	25.7	29.3	32.0	35.9	34.0	34.9	40.1	44.3	47.4	47.0	45.3
Biology	2.5	2.6	2.7	2.8	3.2	2.5	2.3	2.9	2.8	3.1	2.2	2.6	3.2	2.9
Physics	15.9	17.0	19.3	17.6	16.8	15.0	12.8	14.1	11.6	8.4	6.6	5.4	5.8	6.5
Chemistry	19.3	17.7	16.3	17.8	16.7	17.0	15.5	15.4	15.1	12.7	11.4	9.1	9.1	10.6
Earth and space	1.0	0.7	0.8	0.7	0.7	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3
Engineering and technology	13.9	13.5	11.3	11.3	9.4	8.4	7.2	8.8	8.5	7.6	5.3	4.8	4.7	5.3
Mathematics	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Cited country/region														
Total (number)	13,459	15,138	19,417	19,422	23,390	28,077	38,493	40,266	46,961	66,129	102,111	143,541	143,215	142,008
Total (percentage)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States	55.9	55.7	58.6	58.4	58.7	59.0	59.0	58.0	58.7	59.4	60.0	61.1	59.9	59.1
Canada	2.8	2.6	2.6	2.8	2.7	3.0	2.9	3.2	3.4	3.5	3.3	3.4	3.5	3.5
Western Europe	24.4	23.3	22.2	22.5	21.9	22.4	22.8	22.5	22.8	22.9	23.4	23.2	23.8	24.6
United Kingdom	8.5	7.4	7.3	7.7	7.1	6.9	7.0	6.7	7.1	7.1	7.0	7.1	7.0	7.2
France	3.5	3.5	2.7	2.8	2.9	2.9	3.0	3.1	3.2	3.3	3.3	3.5	3.5	3.6
Germany	4.2	4.2	4.1	4.0	3.8	4.3	4.3	4.2	4.3	4.1	4.6	4.2	4.3	4.6
Asia	11.0	13.1	12.2	12.4	12.7	11.5	11.2	12.0	11.2	10.1	9.1	8.5	8.9	9.0
Japan	10.1	11.8	11.3	11.4	11.6	10.4	10.1	10.7	9.9	9.0	8.1	7.5	7.8	7.7
Pacific	1.3	1.4	1.5	1.3	1.3	1.5	1.5	1.6	1.6	1.6	1.8	1.6	1.7	1.6
Eastern Europe	2.8	2.3	1.6	1.3	1.4	1.2	1.3	1.3	1.2	1.1	1.0	1.0	0.9	0.9
Near East	1.2	1.1	0.9	0.9	1.0	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9
Latin America	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
Sub-Saharan Africa	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1

NOTES: The number of citations is based on a three-year lag with a 12-year window of articles in a comprehensive set of journals numbering approximately 5,000 covered by the Institute for Scientific Information. For example, the 2000 citations would be patents issued in 2000 citing papers between 1997 and 1986, and so forth. Percent share refers to the share of the cited paper's scientific field and its nationality based on the institutional address of the cited paper. Science field and country region is determined by CHI's field classification of the journal and the institutional address of the cited publication.

SOURCES: U.S. Department of Commerce, Patent and Trademark Office; Institute for Scientific Information, Science Citation index; CHI Research, Inc., Science Indicators and patent databases; and National Science Foundation, Division of Science Resources Statistics (NSF/SRS).

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