

Appendix table 4-31

**Business expenditures for R&D, by industry and selected country/economy: 2010 or most recent year**

(Millions of current PPP dollars)

Industry	ISIC, Revision 3.1	United States (2009)	China (2009)	Japan (2010)	Germany (2008)	France (2007)	South Korea (2010)	United Kingdom (2009)
Total business enterprise	01–99	282,393	112,785	107,853	56,765	27,718	39,826	23,688
Total manufacturing	15–37	195,824	94,790	93,985	50,516	23,163	34,926	17,511
Food products, beverages, and tobacco	15, 16	4,669	4,005	2,133	349	580	369	446
Textiles, textile products, leather, and footwear	17–19	428	2,865	1,094	246	190	203	16
Wood, paper, printing, and publishing	20–22	2,639	1,543	765	270	113	94	39
Paper and paper products	21	1,249	977	NA	NA	57	43	NA
Publishing, printing, and reproduction of recorded media	22	878	291	NA	NA	23	43	NA
Coke, refined petroleum products, and nuclear fuel	23	606	985	469	116	257	280	428
Chemicals and chemical products	24	53,328	11,590	18,139	8,188	5,555	3,001	7,655
Chemicals (except pharmaceuticals)	24, except 2423	8,392	8,019	6,680	3,981	1,586	2,105	935
Pharmaceuticals	2423	44,936	3,572	11,459	4,207	3,969	896	6,720
Rubber and plastic products	25	2,468	2,273	2,459	1,112	850	615	88
Other nonmetallic mineral products	26	1,100	2,165	1,293	341	318	253	75
Basic metals	27	837	11,332	2,811	532	336	678	71
Fabricated metal products (except machinery and equipment)	28	2,040	1,748	703	741	272	314	141
Machinery and equipment nec	29	9,138	13,864	9,308	6,212	1,271	2,239	1,351
Office, accounting, and computing machinery	30	8,095	NA	3,740	876	192	295	161
Electrical machinery and apparatus nec	31	3,334	10,627	8,910	1,759	1,211	901	893
Radio, TV, and communication equipment	32	33,482	NA	16,451	4,021	2,883	19,025	975
Electronic valves, tubes, and components	321	19,983	NA	NA	NA	1,481	14,827	NA
Radio, TV, and communication equipment nec	32, except 321	13,499	NA	NA	NA	1,402	4,198	NA
Instruments, watches, and clocks	33	22,556	NA	5,277	4,042	1,737	974	762
Motor vehicles	34	11,397	NA	18,484	18,629	3,871	4,856	1,726
Other transportation equipment	35	36,940	NA	795	2,880	3,299	705	2,528
Aircraft and spacecraft	353	34,554	NA	390	NA	2,993	85	2,226
Railroad and other transportation equipment nec	352, 359	NA	NA	283	NA	207	95	41
Furniture, manufacturing nec	36	2,767	NA	1,140	198	213	97	148
Furniture	361	396	184	94	NA	146	54	NA
Manufacturing nec	369	2,371	NA	1,047	NA	67	43	NA
Recycling	37	NA	NA	NA	5	14	25	8
Total nonmanufacturing		86,569	17,995	13,868	6,249	4,555	4,900	6,177
Agriculture, hunting, forestry, and fishing	01–14, 40–99	NA	897	41	123	392	32	169
Mining and quarrying	10–14	1,489	4,520	90	34	203	23	169
Electricity, gas, and water	40, 41	246	2,853	597	162	450	357	114
Construction	45	115	1,436	1,026	70	110	905	27
Total services	50–99	84,719	8,288	12,114	5,860	3,401	3,583	5,698
Wholesale and retail trade, repairs	50–52	3,115	NA	362	NA	NA	655	116
Hotels and restaurants	55	NA	NA	NA	NA	NA	1	NA
Transport, storage, and communications	60–64	1,674	NA	2,712	307	906	511	1,690

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(Millions of current PPP dollars)

Industry	ISIC, Revision 3.1	United States (2009)	China (2009)	Japan (2010)	Germany (2008)	France (2007)	South Korea (2010)	United Kingdom (2009)
Telecommunications	642	1,496	NA	NA	NA	878	421	1,658
Financial intermediation	65–67	1,911	NA	23	NA	NA	2	906
Computer and related activities	72	44,186	NA	2,445	NA	1,928	1,395	2,205
Software consultancy and supply	722	38,954	NA	NA	NA	1,322	1,106	NA
Other computer and related activities nec	72, except 722	5,232	NA	NA	NA	606	289	NA
Research and development	73	17,270	NA	6,123	1,515	52	207	666
Other business activities	74	15,117	NA	450	1,451	458	647	NA
Community, social, and personal services	75–99	1,182	NA	NA	NA	56	70	116

NA = not available; nec = not elsewhere classified.

ISIC = International Standard Industrial Classification, Revision 3.1; PPP = purchasing power parity.

NOTES: U.S. business R&D data in ANBERD are for 2009; U.S. Business R&D and Innovation Survey 2010 statistics were used elsewhere in this chapter. Detail may not add to total. Industry classifications for France and South Korea are based on product field. For all other countries, data are based on main activity.

SOURCE: Organisation for Economic Co-operation and Development (ANBERD), Statistical Analysis Database (STAN), R&D Expenditures in Industry, [http://stats.oecd.org/Index.aspx?DataSetCode=ANBERD2011\\_REV3](http://stats.oecd.org/Index.aspx?DataSetCode=ANBERD2011_REV3), accessed 7 February, 2013.

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