

Appendix table 4-14

Domestic and foreign R&D performed by the company, by industry and company size: 2008

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total performance			Domestic performance			Foreign performance		
		Total	Paid for by company	Paid for by others	Total	Paid for by company	Paid for by others	Total	Paid for by company	Paid for by others
All industries	21-23, 31-33, 42-81	352,156	289,404	62,752	290,681	232,505	58,176	61,475	56,899	4,576
Manufacturing industries	31-33	250,326	209,660	40,666	203,754	164,386	39,368	46,572	45,274	1,298
Food	311	2,101	2,659	D	2,100	2,063	37	1	596	*
Beverage and tobacco products	312	903	900	3	780	777	3	123	123	0
Textile, apparel, and leather	313-16	1,181	1,169	12	814	802	12	367	367	0
Wood products	321	277	274	3	273	270	3	4	4	0
Paper manufacturing	322	1,441	1,430	11	1,167	1,156	11	274	274	0
Printing and related support activities	323	D	321	D	349	312	37	*	9	*
Petroleum and coal products	324	D	D	D	D	D	D	D	D	0
Chemicals	325	72,239	68,591	3,648	58,249	55,042	3,207	13,990	13,549	441
Basic chemicals	3251	5,272	5,206	66	4,074	4,012	62	1,198	1,194	4
Resin, synthetic rubber, fibers, and filament	3252	985	950	35	761	726	35	224	224	0
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	D	1,311	D	D	941	D	D	370	1
Pharmaceuticals and medicines	3254	58,993	55,648	3,345	48,131	45,169	2,962	10,862	10,479	383
Soap, cleaning compound, and toilet preparation	3256	3,073	3,064	9	2,108	2,099	9	965	965	0
Paint, coating, adhesive, and other chemicals manufacturing	3255, 3259	D	2,412	D	D	2,095	D	D	317	53
Plastics and rubber products	326	2,158	2,052	106	1,817	1,713	104	341	339	2
Nonmetallic mineral products	327	D	1,615	D	1,555	1,509	46	*	106	*
Primary metals	331	D	768	D	696	654	42	*	114	*
Fabricated metal products	332	2,608	2,550	58	2,419	2,362	57	189	188	1
Machinery	333	12,033	11,764	269	10,104	9,846	258	1,929	1,918	11
Agricultural implement manufacturing	33311	1,583	1,580	3	1,184	1,181	3	399	399	0
Semiconductor machinery manufacturing	333295	2,538	2,475	63	2,172	2,113	59	366	362	4
Engine, turbine, and power transmission equipment manufacturing	3336	1,435	1,372	63	1,343	1,280	63	92	92	0
Other machinery manufacturing	other 333	6,477	6,337	140	5,405	5,272	133	1,072	1,065	7
Computer and electronic products	334	76,237	68,331	7,906	60,463	52,912	7,551	15,774	15,419	355
Communications equipment	3342	15,854	14,423	1,431	12,903	11,484	1,419	2,951	2,939	12
Semiconductor and other electronic components	3344	29,399	28,490	909	22,324	21,588	736	7,075	6,902	173
Navigational, measuring, electromedical, and control instruments	3345	17,768	12,666	5,102	15,460	10,463	4,997	2,308	2,203	105
Electromedical, electrotherapeutic, and irradiation apparatus manufacturing	334510, 334517	6,853	5,730	1,123	6,015	4,896	1,119	838	834	4
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing	334511	D	D	D	D	2,803	3,739	D	D	D
Other measuring and controlling device manufacturing	other 3345	D	D	D	D	2,764	139	D	D	D

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Computer and peripheral equipment and other computer and electronic products	3341, 3343, 3346	13,216	12,752	464	9,776	9,377	399	3,440	3,375	65
Electrical equipment, appliances, and components	335	4,305	4,099	206	3,143	2,947	196	1,162	1,152	10
Transportation equipment	336	60,819	32,835	27,984	50,552	23,039	27,513	10,267	9,796	471
Automobiles, bodies, trailers, and parts	3361, 3362, 3363	21,587	20,547	1,040	13,140	12,234	906	8,447	8,313	134
Aerospace products and parts	3364	38,757	11,850	26,907	36,941	10,371	26,570	1,816	1,479	337
Aircraft, aircraft engine, and aircraft parts manufacturing	336411-13	D	D	D	D	9,698	21,163	D	D	D
Guided missile, space vehicle, and related parts manufacturing	336414, 336415, 336419	D	D	D	D	673	5,407	D	D	D
Military armored vehicle, tank, and tank component manufacturing	336992	32	25	7	32	25	7	0	0	0
Other transportation	other 336	442	412	30	439	409	30	3	3	0
Furniture and related products	337	D	504	D	D	477	*	D	27	0
Miscellaneous manufacturing	339	D	D	D	D	D	D	D	D	7
Medical equipment and supplies manufacturing	3391	6,067	5,941	126	5,300	5,179	121	767	762	5
Other miscellaneous manufacturing	3399	D	D	D	D	D	D	D	D	3
Nonmanufacturing industries	21-23, 42-81	101,828	79,743	22,085	86,925	68,118	18,807	14,903	11,625	3,278
Mining, extraction, and support activities	21	D	1,676	D	D	1,478	24	D	198	D
Utilities	22	D	196	D	225	190	35	*	6	*
Construction	23	D	D	D	D	D	D	D	0	0
Wholesale trade	42	2,594	2,443	151	2,084	1,944	140	510	499	11
Retail trade	44-45	D	D	2	1,031	1,029	2	D	D	0
Electronic shopping and mail-order houses	4541	D	D	1	675	674	1	D	D	0
Other retail trade	other 44-45	355	354	1	355	354	1	0	0	0
Transportation and warehousing	48-49	D	136	D	D	134	*	D	2	0
Information	51	45,351	44,524	827	37,694	36,922	772	7,657	7,602	55
Publishing	511	34,728	34,126	602	28,427	27,871	556	6,301	6,255	46
Newspaper, periodical, book, and directory publishers	5111	232	232	0	205	205	0	27	27	0
Software publishers	5112	34,495	33,893	602	28,221	27,665	556	6,274	6,228	46
Telecommunications	517	1,859	1,776	83	1,684	1,601	83	175	175	0
Internet service providers, Web search portals, and data processing services	518	7,657	7,573	84	6,568	6,493	75	1,089	1,080	9
Other information	other 51	1,109	1,051	58	1,016	958	58	93	93	0
Finance and insurance	52	1,166	1,157	9	1,092	1,084	8	74	73	1
Real estate and rental and leasing	53	318	311	7	253	246	7	65	65	0
Professional, scientific, and technical services	54	44,104	23,493	20,611	37,954	20,539	17,415	6,150	2,954	3,196
Architectural, engineering, and related services	5413	3,622	1,495	2,127	3,422	1,378	2,044	200	117	83
Computer systems design and related services	5415	14,311	10,646	3,665	12,146	8,569	3,577	2,165	2,077	88

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Scientific research and development services	5417	21,457	9,272	12,185	17,913	8,708	9,205	3,544	564	2,980
Other professional, scientific, and technical services	other 54	4,715	2,080	2,635	4,474	1,884	2,590	241	196	45
Health care services	621-23	1,315	1,033	282	1,314	1,032	282	1	1	0
Other nonmanufacturing	55-56, 61, 624, 71-72, 81	D	D	D	D	D	D	D	D	D
All companies	21-23, 31-33, 42-81	352,156	289,404	62,752	290,681	232,505	58,176	61,475	56,899	4,576
Small companies (number of employees) ^a										
5-499	-	63,052	50,922	12,130	58,137	46,396	11,741	4,915	4,526	389
5-99	-	35,258	26,682	8,576	33,256	24,890	8,366	2,002	1,792	210
5-49	-	24,931	18,478	6,453	23,905	17,642	6,263	1,026	836	190
5-24	-	14,648	10,571	4,077	14,280	10,333	3,947	368	238	130
25-49	-	10,285	7,907	2,378	9,626	7,309	2,317	659	598	61
50-99	-	10,327	8,204	2,123	9,351	7,248	2,103	976	956	20
100-249	-	16,397	14,555	1,842	14,662	12,933	1,729	1,735	1,622	113
250-499	-	11,396	9,684	1,712	10,218	8,572	1,646	1,178	1,112	66
Medium and large companies (number of employees)										
500-999	-	13,639	11,353	2,286	11,886	9,673	2,213	1,753	1,680	73
1,000-4,999	-	57,687	49,638	8,049	46,337	39,010	7,327	11,350	10,628	722
5,000-9,999	-	31,764	24,923	6,841	24,764	20,358	4,406	7,000	4,565	2,435
10,000-24,999	-	60,522	54,272	6,250	48,737	43,049	5,688	11,785	11,223	562
25,000 or more	-	125,491	98,297	27,194	100,820	74,020	26,800	24,671	24,277	394

* = < \$500,000; D = data withheld to avoid disclosing operations of individual companies

BRDIS = Business R&D and Innovation Survey; NAICS = 2002 North American Industry Classification System

^aUpper bound based on U.S. Small Business Administration's definition of a small business; BRDIS does not include companies with fewer than five domestic employees.

NOTES: Detail may not add to total because of rounding. Industry classification based on dominant business code for domestic R&D performance where available. For companies that did not report business codes, classification used for sampling was assigned.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2008.

Science and Engineering Indicators 2012