

TABLE 36

## Domestic R&amp;D paid for by others and performed by the company, by type of R&amp;D, industry, and company size: 2016

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Basic research	Applied research	Development
All industries	21-23, 31-33, 42-81	56,954	5,501 i	12,213	39,239
Manufacturing industries	31-33	38,893	4,041 i	6,599	28,253
Food	311	217	8	72	138
Beverages and tobacco products	312	D	11	D	D
Textiles, apparel, and leather products	313-16	9	* i	3 i	6 i
Wood products	321	7 i	*	2 i	5
Printing and related support activities	323	* i	* i	* i	*
Chemicals	325	9,410	2,089	1,481	5,840
Pharmaceuticals and medicines	3254	8,644	1,961	1,117	5,567
Other chemicals	other 325	766	128	364	273
Plastics and rubber products	326	169	5	6	158
Nonmetallic mineral products	327	14	*	4	10
Primary metals	331	10	* i	* i	9 i
Fabricated metal products	332	112 i	2 i	14	96 i
Machinery	333	886	16	130	740
Computer and electronic products	334	8,869	365 i	1,332	7,172
Semiconductors and other electronic components	3344	2,215	25 i	276	1,914
Navigational, measuring, electromedical, and control instruments	3345	4,753	87 i	687	3,980
Other computer and electronic products	other 334	1,901 i	253 i	369 i	1,278 i
Electrical equipment, appliances, and components	335	469 i	3	30 i	436 i
Transportation equipment	336	18,371	1,533 i	3,446	13,392
Aerospace products and parts	3364	14,373	1,077 i	1,908 i	11,388
Other transportation equipment	other 336	3,997 i	456 i	1,538	2,003 i
Furniture and related products	337	*	*	*	*
Miscellaneous manufacturing	322, 324, 339	D	8	D	D
Nonmanufacturing industries	21-23, 42-81	18,061	1,460	5,615	10,986 i
Information	51	674	86	110	478
Publishing	511	400	20	26	354
Telecommunications	517	D	0	D	D
Data processing, hosting, and related services	518	138	D	D	93
Other information	other 51	D	D	D	D
Professional, scientific, and technical services	54	16,750	1,339	5,420	9,992 i
Architectural, engineering, and related services	5413	1,596	99	823	674
Computer systems design and related services	5415	2,492 i	208 i	913	1,371
Scientific research and development services	5417	12,031	967	3,474 i	7,590 i
Biotechnology research and development	541711	3,714	472	376	2,865 i
Physical, engineering, and life sciences (except biotechnology) research and development	541712	7,630	443 i	2,653 i	4,534 i
Social sciences and humanities research and development	541720	687	52 i	445 i	191 i
Other professional, scientific, and technical services	other 54	632	65	210 i	357
Other nonmanufacturing	21-23, 42-49, 52, 53, 55-81	637	35	85	516
All companies (number of domestic employees)	-	56,954	5,501 i	12,213	39,239
Micro companies <sup>a</sup>					
5 - 9	-	536 i	65 i	177 i	294 i
Small companies					
10 - 19	-	1,071 i	97 i	388 i	586 i
20 - 49	-	2,189	230 i	435	1,524

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(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Basic research	Applied research	Development
Medium companies					
50 – 99	–	1,570	169 i	262	1,140
100 – 249	–	3,153	329	719	2,105
Large companies					
250 – 499	–	1,654	114	533	1,007
500 – 999	–	924	28	218	678
1,000 – 4,999	–	10,666	1,785	3,804	5,077
5,000 – 9,999	–	4,746	83 i	1,077 i	3,586
10,000 – 24,999	–	12,210	753 i	1,496	9,961
25,000 or more	–	18,232	1,847 i	3,104 i	13,281

\* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

<sup>a</sup> Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

**Note(s)**

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded R&D.

**Source(s)**

National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2016.