

TABLE 23

For companies that performed foreign R&D, domestic and foreign R&D paid for by the company and others and performed by the company, by type of R&D and selected industry: 2018

(Millions of U.S. dollars)

Industry	NAICS code	Total	Paid for by company	Paid for by others	Research (basic and applied)			Development			
					Total	Paid for by company	Paid for by others	Total	Paid for by company	Paid for by others	
Total domestic R&D performance											
All industries	21-23, 31-33, 42-81	327,713	291,002	36,711	62,669	52,085	10,584	265,044	238,917	26,127	
Manufacturing industries	31-33	204,693	181,623	23,070	46,536	40,102	6,434	158,157	141,521	16,636	
Chemicals	325	52,368	50,474	1,894	19,718	19,134	584	32,650	31,341	1,310	i
Pharmaceuticals and medicines	3254	45,962	44,402	1,560	17,534	17,277	257	28,429	27,125	1,303	i
Other chemicals	other 325	6,406	6,072	334	2,184	1,857	327	4,222	4,215	7	
Computer and electronic products	334	72,231	66,425	5,806	10,615	9,674	940	61,616	56,751	4,865	
Semiconductor and other electronic components	3344	27,158	26,765	393	3,494	3,469	25	23,664	23,295	368	
Other computer and electronic products	other 334	45,073	39,660	5,413	7,121	6,205	916	37,952	33,455	4,497	
Nonmanufacturing industries	21-23, 42-81	123,020	109,379	13,641	16,133	11,983	4,150	106,887	97,396	9,491	i
Information	51	79,876	79,501	375	7,679	7,601	78	72,197	71,900	297	
Software publishers	5112	29,665	29,310	355	4,265	4,191	74	25,401	25,119	281	
Other information	other 51	50,210	50,190	20	3,414	3,410	5	46,796	46,780	16	i
Professional, scientific, and technical services	54	24,150	10,942	13,208	6,353	2,286	4,067	17,797	8,656	9,141	i
Scientific research and development services	5417	12,722	468	12,254	3,540	143	3,396	9,182	324	8,858	i
Other professional, scientific, and technical services	other 54	11,428	10,474	954	2,813	2,143	670	8,615	8,331	283	i
Total foreign R&D performance											
All industries	21-23, 31-33, 42-81	100,376	90,429	9,947	19,788	17,520	2,268	80,589	72,909	7,680	
Manufacturing industries	31-33	64,878	63,400	1,478	13,594	13,291	303	51,284	50,109	1,175	
Chemicals	325	16,749	16,459	289	4,590	4,486	104	12,159	11,973	185	
Pharmaceuticals and medicines	3254	13,945	13,679	265	4,004	3,922	81	9,941	9,757	184	
Other chemicals	other 325	2,804	2,780	24	586	564	23	2,218	2,216	1	i
Computer and electronic products	334	28,322	27,744	578	5,084	4,970	115	23,238	22,775	463	
Semiconductor and other electronic components	3344	14,487	14,263	224	2,266	2,253	14	12,221	12,010	210	
Other computer and electronic products	other 334	13,835	13,481	354	2,818	2,717	101	11,017	10,764	253	
Nonmanufacturing industries	21-23, 42-81	35,498	27,029	8,469	6,194	4,230	1,964	29,304	22,800	6,505	
Information	51	17,156	17,125	31	1,634	1,628	6	15,522	15,497	25	i
Software publishers	5112	7,175	7,162	13	1,124	1,121	3	6,052	6,042	10	
Other information	other 51	9,981	9,963	18	511	508	3	9,470	9,455	15	i
Professional, scientific, and technical services	54	13,307	4,873	8,435	2,872	914	1,958	10,435	3,958	6,477	
Scientific research and development services	5417	8,370 - 8,379	63	8,307 - 8,316	1,886 - 1,896	12	1,875 - 1,884	6,483	51	6,432	i

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Other professional, scientific, and technical services	other 54	4,928 - 4,938	4,809	119 - 128 i	976 - 986 i	903 i	73 - 84	3,952 i	3,907 i	45 i

i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

**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. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates with estimates published for years prior to 2018. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

**Source(s):**

National Center for Science and Engineering Statistics and U.S. Census Bureau, Business Research and Development Survey, 2018.