

TECHNICAL TABLE A-1

Companies in the target population and selected for the sample, by industry: 2016

(Number of companies)

Industry	NAICS code	Companies in target population ^a	Companies selected for the sample		
			All companies	Noncertainties	Certainties
All industries	21-23, 31-33, 42-81	2,595,220	161,066	74,127	86,939
Manufacturing industries	31-33	82,479	9,801	3,667	6,134
Food	311	6,229	313	298	15
Beverages and tobacco products	312	2,214	107	106	1
Textiles, apparel, and leather products	313-16	5,804	280	279	1
Wood products	321	3,542	177	170	7
Paper	322	443	26	21	5
Printing and related support activities	323	10,443	501	501	0
Petroleum and coal products	324	209	12	10	2
Chemicals	325	2,448	1,503	48	1,455
Basic chemicals	3251	240	12	11	1
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	150	150	0	150
Pesticides, fertilizers, and other agricultural chemicals	3253	183	11	9	2
Pharmaceuticals and medicines	3254	453	453	0	453
Soaps, cleaning compounds, and toilet preparations	3256	573	28	28	0
Paints, coatings, adhesives, and other chemicals	3255, 3259	849	849	0	849
Plastics and rubber products	326	1,886	102	90	12
Nonmetallic mineral products	327	2,530	130	121	9
Primary metals	331	774	40	37	3
Fabricated metal products	332	15,034	739	721	18
Machinery	333	5,490	299	262	37
Agricultural implements	33311	314	15	15	0
Semiconductor machinery	333242	30	30	0	30
Engines, turbines, and power transmission equipment	3336	155	9	8	1
Other machinery	other 333	4,991	245	239	6
Computer and electronic products	334	3,222	3,222	0	3,222
Communications equipment	3342	328	328	0	328
Semiconductors and other electronic components	3344	798	798	0	798
Navigational, measuring, electromedical, and control instruments	3345	1,286	1,286	0	1,286
Electromedical, electrotherapeutic, and irradiation apparatuses	334510, 334517	212	212	0	212
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	107	107	0	107
Other measuring and controlling devices	other 3345	967	967	0	967
Other computer and electronic products	other 334	810	810	0	810
Electrical equipment, appliances, and components	335	1,303	1,303	0	1,303
Transportation equipment	336	2,663	158	127	31
Automobiles, bodies, trailers, and parts	3361-63	1,519	78	73	5
Aerospace products and parts	3364	308	27	14	13
Aircraft, aircraft engines, and aircraft parts	336411-13	297	16	14	2
Guided missiles, space vehicles, and related parts	336414, 336415, 336419	11	11	0	11
Military armored vehicles, tanks, and tank components	336992	10	10	0	10
Other transportation	other 336	826	43	40	3

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Furniture and related products	337	5,650	273	271	2
Miscellaneous	339	11,123	544	534	10
Medical equipment and supplies	3391	4,790	237	230	7
Other miscellaneous manufacturing	3399	6,333	307	304	3
Nonmanufacturing industries	–	1,472	72	71	1
Mining, extraction, and support activities	21–23, 42–81	2,512,741	151,265	70,460	80,805
Utilities	21	9,547	507	457	50
Wholesale trade	22	1,472	74	70	4
Electronic shopping and electronic auctions	42	140,879	7,115	6,746	369
Transportation and warehousing	454111–12	14,555	712	698	14
Information	48–49	84,922	4,171	4,073	98
Publishing	51	32,918	3,863	1,465	2,398
Newspaper, periodical, book, and directory publishers	511	7,409	2,573	244	2,329
Software publishers	5111	5,085	249	244	5
Telecommunications	5112	2,324	2,324	0	2,324
Data processing, hosting, and related services	517	3,908	194	187	7
Other information	518	3,432	178	164	14
Finance and insurance	other 51	18,169	918	870	48
Real estate and rental and leasing	52	138,678	7,078	6,637	441
Lessors of nonfinancial intangible assets (except copyrighted works)	53	175,724	8,604	8,428	176
Other real estate and rental and leasing	533	1,050	59	50	9
Professional, scientific, and technical services	other 53	174,674	8,545	8,378	167
Architectural, engineering, and related services	54	458,599	93,073	18,434	74,639
Computer systems design and related services	5413	47,532	2,356	2,278	78
Scientific research and development services	5415	68,252	68,252	0	68,252
Biotechnology research and development	5416	95,044	4,877	4,547	330
Physical, engineering, and life sciences (except biotechnology) research and development	5417	5,034	5,034	0	5,034
Social sciences and humanities research and development	541711	1,183	1,183	0	1,183
Other professional, scientific, and technical services	541712	3,329	3,329	0	3,329
Health care services	541720	522	522	0	522
Other nonmanufacturing	other 54	242,737	12,554	11,609	945
Health care services	621–23	224,912	11,899	10,743	1,156
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	1,219,532	13,635	12,181	1,454
Unclassified	–	11,003	534	528	6

NAICS = 2012 North American Industry Classification System.

^a Estimates of the number of companies in the target population are based on the original sampling frame that was created to select the 2016 Microbusiness R&D and Innovation Survey sample for the small stratum (companies with 1–4 employees).

^b Because of the widespread practice of the larger petroleum extraction and refining companies vertically integrating their activities, petroleum refineries (NAICS 32411) and oil and gas extraction (NAICS 211) were combined during sampling.

Note(s)

Certainties were companies with a probability of selection of one because they were in an industry where all companies were included in the sample or they had a payroll that was in the top 100 in their state. Noncertainties are companies with a probability of selection of less than 1. Companies that

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were missing or had an incomplete NAICS code at the time of sampling were assigned to an "unclassified" industry category temporarily. If an unclassified company reported R&D expenditures, its primary industrial activity was investigated, and a NAICS code was assigned during statistical processing. The total sample size reflects the time between sample selection and survey mailout; that is, the sample was updated before actual mailout took place.

Source(s)

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