

TABLE 44. Importance of mask works for companies with and without R&D activity, by industry and company size: 2011  
(Percent)

Industry and company size	NAICS code	All companies			With R&D activity <sup>a</sup>			Without R&D activity		
		Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important
All industries	21–23, 31–33, 42–81	0.6	1.5	97.8	3.0	5.1	92.0	0.5	1.4	98.1
Manufacturing industries	31–33	1.6	3.9	94.4	3.1	7.4	89.4	1.2	2.9	95.9
Food	311	1.5	3.2	95.3	1.1	1.0	97.9	1.6	3.7	94.7
Beverage and tobacco products	312	0.6	1.9	97.5	1.9	D	D	D	D	97.5
Textile, apparel, and leather products	313–316	1.9	5.5	92.6	0.6	5.6	93.7	2.1	5.5	92.4
Wood products	321	0.1	1.8	98.0	D	D	98.2	D	D	98.0
Paper	322	0.4	5.1	94.6	D	D	D	D	D	D
Printing and related support activities	323	1.0	1.9	97.1	D	D	96.6	1.1	1.8	97.1
Petroleum and coal products	324	D	D	97.5	0.0	D	D	D	D	D
Chemicals	325	S	4.2	94.0	1.1	6.2	92.8	S	1.8	95.5
Basic chemicals	3251	0.5	10.9	88.6	0.9	18.6	80.5	0.0	D	D
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	S	S	S	D	D	83.8	D	S	D
Pesticide, fertilizer, and other agricultural chemical	3253	2.2	2.1	95.7	D	D	D	2.5	D	D
Pharmaceuticals and medicines	3254	0.9	5.4	93.7	1.3	5.1	93.6	0.0	D	D
Soap, cleaning compound, and toilet preparation	3256	3.4	D	D	1.3	D	D	7.4	0.0	92.6
Paint, coating, adhesive, and other chemicals	3255, 3259	0.7	1.8	97.5	0.7	2.1	97.2	D	D	97.7
Plastics and rubber products	326	1.8	2.1	96.1	0.9	5.0	94.1	2.2	0.9	96.9
Nonmetallic mineral products	327	0.4	0.5	99.1	4.0	3.0	93.0	0.0	0.2	99.8
Primary metals	331	2.0	6.0	92.0	2.8	8.0	89.1	1.8	5.6	92.7
Fabricated metal products	332	0.7	3.5	95.8	2.7	3.8	93.5	0.4	3.5	96.1
Machinery	333	1.8	5.2	93.0	3.0	8.6	88.5	1.2	3.3	95.5
Agricultural implement	33311	0.0	9.7	90.3	0.0	6.1	93.9	0.0	S	87.1
Semiconductor machinery	333295	12.4	5.9	81.6	30.2	15.3	54.5	D	0.0	D
Engine, turbine, and power transmission equipment	3336	3.2	3.9	92.8	4.6	4.0	91.4	D	D	D
Other machinery	other 333	1.7	5.0	93.3	2.5	8.9	88.6	1.2	3.0	95.8
Computer and electronic products	334	7.9	7.3	84.8	10.7	8.5	80.8	4.3	5.7	90.0
Communications equipment	3342	6.1	4.8	89.2	7.8	5.2	87.0	D	D	S
Semiconductor and other electronic components	3344	14.5	10.8	74.8	24.5	12.1	63.4	5.8	9.6	84.6
Navigational, measuring, electromedical, and control instruments	3345	4.9	6.5	88.7	5.6	8.3	86.1	3.8	3.8	92.4
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	9.1	6.2	84.7	15.1	10.3	74.6	0.0	0.0	100.0
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	2.1	9.5	88.4	2.7	12.1	85.2	0.0	0.0	100.0
Other measuring and controlling device	other 3345	4.6	6.1	89.3	4.6	7.3	88.1	4.6	4.6	90.8
Other computer and electronic products	other 334	2.9	3.8	93.3	3.3	6.1	90.6	D	0.0	D
Electrical equipment, appliances, and components	335	2.8	16.6	80.6	4.0	29.9	66.1	1.5	1.9	96.6
Transportation equipment	336	1.5	5.0	93.5	1.8	5.9	92.3	1.3	4.6	94.1
Motor vehicles, bodies, trailers, and parts	3361, 3362, 3363	1.3	3.6	95.1	0.8	9.3	89.9	1.5	1.3	97.2

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Aerospace products and parts	3364	4.0	1.6	94.4	6.8	1.6	91.6	1.9	1.6	96.6
Aircraft, aircraft engine, and aircraft parts	336411-13	4.1	1.4	94.6	6.9	1.1	92.0	1.9	1.6	96.5
Guided missile, space vehicle, and related parts	336414-15, 336419	D	D	89.7	D	D	82.4	S	S	S
Military armored vehicle, tank, and tank component	336992	0.0	0.0	100.0	0.0	0.0	100.0	0.0	D	D
Other transportation equipment	other 336	0.5	10.6	88.9	D	D	97.4	D	D	84.3
Furniture and related products	337	2.9	0.5	96.5	0.9	2.8	96.3	3.1	0.3	96.6
Miscellaneous manufacturing	339	0.9	4.7	94.5	1.7	9.8	88.5	0.5	2.5	97.0
Medical equipment and supplies	3391	0.6	5.6	93.8	1.7	7.6	90.7	0.0	4.6	95.4
Other miscellaneous manufacturing	3399	1.1	4.0	94.9	1.7	11.5	86.8	0.8	1.3	97.8
Nonmanufacturing industries	21-23, 42-81	0.5	1.3	98.1	2.8	3.5	93.7	0.4	1.3	98.3
Mining, extraction, and support activities	21	0.5	0.3	99.2	D	D	89.2	0.1	0.2	99.7
Utilities	22	0.4	2.8	96.8	3.6	20.1	76.3	0.0	D	D
Wholesale trade	42	1.6	2.4	96.0	3.7	0.6	95.7	1.4	2.5	96.0
Electronic shopping and electronic auctions	454111-12	D	D	97.8	0.0	7.1	92.9	D	D	98.4
Transportation and warehousing	48-49	D	D	99.2	0.0	D	D	D	D	99.2
Information	51	1.3	1.8	96.9	4.4	2.8	92.8	0.3	1.5	98.2
Publishing	511	1.3	2.7	96.0	3.4	2.6	94.0	0.3	2.8	96.9
Newspaper, periodical, book, and directory publishers	5111	D	D	97.1	0.0	0.0	100.0	D	D	96.9
Software publishers	5112	3.4	2.9	93.7	4.1	3.1	92.8	D	D	D
Telecommunications	517	0.8	1.6	97.7	1.5	6.1	92.5	0.7	1.0	98.4
Data processing, hosting, and related services	518	2.6	2.1	95.3	5.8	3.8	90.4	0.0	D	D
Other information	other 51	1.0	0.7	98.2	6.0	0.8	93.1	D	D	D
Finance and insurance	52	0.0	0.0	100.0	D	D	D	0.0	0.0	100.0
Real estate and rental and leasing	53	0.0	D	D	0.0	D	D	0.0	D	D
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0.0	D	D	0.0	D	D	0.0	D	D
Other real estate and rental and leasing	other 53	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0
Professional, scientific, and technical services	54	1.6	2.1	96.3	3.8	4.8	91.4	1.3	1.8	96.9
Architectural, engineering, and related services	5413	0.9	1.6	97.5	4.9	7.6	87.5	0.3	0.7	98.9
Computer systems design and related services	5415	3.3	4.1	92.6	4.0	4.0	92.1	3.0	4.1	92.9
Scientific research and development services	5417	2.9	8.1	89.1	3.3	8.0	88.7	1.1	8.4	90.5
Biotechnology research and development	541711	2.0	1.3	96.8	2.3	1.1	96.6	S	D	D
Physical, engineering, and life sciences (except biotechnology) research and development	541712	3.5	12.0	84.5	3.9	11.7	84.4	1.8	13.5	84.7
Social sciences and humanities research and development	541720	0.0	D	D	0.0	D	D	0.0	0.0	100.0
Other professional, scientific, and technical services	other 54	1.4	1.6	97.0	2.9	1.4	95.7	1.3	1.6	97.0
Health care services	621-23	0.4	0.6	99.1	D	D	D	0.4	0.6	99.1
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	0.3	1.4	98.3	0.3	6.1	93.7	0.3	1.4	98.3

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		Very important	Somewhat important	Not important	Very important	Somewhat important	Not important	Very important	Somewhat important	Not important
All companies (number of domestic employees)	–	0.6	1.5	97.8	3.0	5.1	92.0	0.5	1.4	98.1
Small companies <sup>b</sup>										
5–499	–	0.6	1.5	97.9	2.9	5.0	92.1	0.5	1.4	98.1
5–99	–	0.6	1.4	98.0	2.9	5.1	91.9	0.5	1.3	98.2
5–49	–	0.6	1.4	98.0	3.0	4.6	92.4	0.5	1.3	98.2
5–9	–	0.6	1.3	98.1	3.4	3.5	93.1	0.5	1.2	98.3
10–24	–	0.4	1.4	98.2	3.2	4.8	92.0	0.3	1.3	98.4
25–49	–	1.0	1.7	97.3	2.0	6.0	91.9	0.9	1.4	97.7
50–99	–	0.7	1.9	97.4	2.7	8.6	88.7	0.5	1.5	98.0
100–249	–	0.9	3.3	95.8	3.4	4.2	92.4	0.5	3.2	96.2
250–499	–	1.0	5.0	94.0	2.0	3.8	94.2	0.8	5.2	94.0
Medium and large companies										
500–999	–	0.9	1.9	97.2	3.2	7.2	89.6	0.3	0.5	99.2
1,000–4,999	–	2.7	2.4	94.9	3.3	5.7	91.0	2.4	0.8	96.8
5,000–9,999	–	1.4	4.2	94.4	3.5	9.5	87.0	D	D	98.3
10,000–24,999	–	2.0	4.4	93.6	4.3	10.0	85.7	D	D	97.4
25,000 or more	–	3.9	5.3	90.9	5.9	9.8	84.2	D	0.0	D

D = data withheld to avoid disclosing operations of individual companies; S = data withheld as > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2007 North American Industry Classification System.

<sup>a</sup> Statistics are representative of companies located in the United States that performed or funded R&D.

<sup>b</sup> Upper bound based on U.S. Small Business Administration's definition of a small business; Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

NOTES: 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, 2011.