

TABLE 33. Domestic R&D paid for by others and performed by the company in selected technology focus areas, by industry and company size: 2012
(Millions of U.S. dollars)

| Industry and company size | NAICS code | Total domestic R&D | Technology focus areas | | | |
|--|--|--------------------|------------------------|-------------------|---------------|----------------|
| | | | Software products | Embedded software | Biotechnology | Nanotechnology |
| All industries | 21–23, 31–33, 42–81 | 54,970 | 7,264 i | 6,394 i | 5,145 i | 1,481 i |
| Manufacturing industries | 31–33 | 38,218 | 4,665 i | 4,398 i | 3,020 i | 1,109 i |
| Food | 311 | 171 | 2 | 2 | 45 | 0 |
| Chemicals | 325 | 6,359 | 73 | 4 i | 2,819 i | 66 i |
| Basic chemicals | 3251 | 380 i | * | 0 | 10 i | 27 i |
| Pharmaceuticals and medicines | 3254 | 5,552 | 70 | 4 i | 2,682 i | 9 |
| Other chemicals | other 325 | 426 | 3 i | 0 | 127 | 30 |
| Plastics and rubber products | 326 | 338 i | 0 | 0 | * | 3 i |
| Nonmetallic mineral products | 327 | D | D | 0 | D | D |
| Fabricated metal products | 332 | 114 i | 1 i | D | 0 | * |
| Machinery | 333 | 960 | 8 | 160 | D | 35 |
| Agricultural implement | 33311 | 43 | 1 | D | 0 | * i |
| Semiconductor machinery | 333295 | 73 | 0 | 2 i | 0 | 29 |
| Engine, turbine, and power transmission equipment | 3336 | 579 | 6 | D | D | 5 |
| Other machinery | other 333 | 265 i | 1 i | 6 i | * | * i |
| Computer and electronic products | 334 | 8,391 | 694 | 1,591 | 7 | 803 i |
| Semiconductor and other electronic components | 3344 | 1,375 | 1 | 55 i | 3 | 690 i |
| Other electronic products | other 334 | 7,017 | 693 | 1,536 | 4 i | 113 i |
| Electrical equipment, appliances, and components | 335 | 187 | 39 | 33 | 4 i | 1 |
| Transportation equipment | 336 | 20,961 i | 3,830 i | 2,574 i | 85 | 180 i |
| Automobiles, bodies, trailers, and parts | 3361–63 | D | D | D | 0 | 0 |
| Other transportation | other 336 | D | D | D | 85 | 180 i |
| Miscellaneous manufacturing | 339 | D | D | D | 45 | D |
| Other manufacturing | 312–16, 321–24, 331, 337 | D | D | D | 7 i | D |
| Nonmanufacturing industries | 21–23, 42–81 | 16,752 | 2,600 i | 1,996 i | 2,125 | 372 i |
| Mining, extraction, and support activities | 21 | 372 | D | 21 | 6 | 12 |
| Utilities | 22 | 103 | D | 1 i | * | * i |
| Wholesale trade | 42 | 245 i | 24 i | 35 i | 5 i | 5 i |
| Information | 51 | 954 | 698 i | 192 i | 0 | 9 i |
| Publishing | 511 | 734 | 585 i | 148 i | 0 | 9 i |
| Telecommunications | 517 | 56 | 18 i | 29 | 0 | 0 |
| Data processing, hosting, and related services | 518 | 112 | 50 i | 7 | 0 | 0 |
| Other information | other 51 | 52 i | 44 i | 7 i | 0 | 0 |
| Professional, scientific, and technical services | 54 | 14,143 | 1,836 i | 1,701 i | 1,895 | 347 i |
| Architectural, engineering, and related services | 5413 | 1,390 i | 83 i | 250 i | 3 i | 1 |
| Scientific research and development services | 5417 | 9,756 | 571 i | 719 i | 1,811 | 196 i |
| Biotechnology research and development | 541711 | 3,017 | 1 | 22 i | 1,298 | 33 |
| Other scientific research and development | other 5417 | 6,738 | 571 i | 697 i | 513 i | 163 i |
| Other professional, scientific, and technical services | other 54 | 2,997 | 1,182 i | 733 i | 81 i | 150 i |
| Health care services | 621–23 | 259 i | 0 | 0 | 212 i | 0 |
| Other nonmanufacturing | 23, 44–45, 48–49, 52–53, 55–56, 624, 71–72, 81 | 677 | 12 | 46 | 6 i | * |
| All companies (number of domestic employees) | – | 54,970 | 7,264 i | 6,394 i | 5,145 i | 1,481 i |
| Small companies ^a | | | | | | |
| 5–499 | – | 10,573 i | 1,470 i | 1,442 i | 1,572 | 433 i |
| 5–99 | – | 6,259 i | 979 i | 712 i | 978 i | 310 i |
| 5–49 | – | 4,365 i | 612 i | 513 i | 692 i | 238 i |
| 5–9 | – | 959 i | 117 i | 82 i | 274 i | 39 i |
| 10–24 | – | 1,930 i | 256 i | 224 i | 252 i | 89 i |
| 25–49 | – | 1,476 | 239 | 207 i | 166 i | 110 |
| 50–99 | – | 1,894 i | 367 | 199 i | 286 | 72 i |
| 100–249 | – | 2,581 | 396 i | 450 i | 427 | 73 i |
| 250–499 | – | 1,733 | 95 | 279 | 167 | 50 |
| Medium and large companies | | | | | | |
| 500–999 | – | 1,257 | 88 i | 143 i | 200 | 20 i |
| 1,000–4,999 | – | 7,666 | 145 i | 419 | 1,373 i | 296 i |

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|---------------------------|------------|--------------------|------------------------|-------------------|---------------|----------------|
| | | | Software products | Embedded software | Biotechnology | Nanotechnology |
| 5,000–9,999 | – | 6,662 | 477 | 307 i | 1,318 i | 363 |
| 10,000–24,999 | – | 6,373 | 307 | 540 i | 489 i | 86 |
| 25,000 or more | – | 22,440 i | 4,777 i | 3,543 i | 194 i | 283 i |

* = 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 = 2007 North American Industry Classification System.

^a The upper bound is based on the U.S. Small Business Administration's definition of a small business; the Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

NOTES: Detail may not add to total because of rounding. The 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. Some R&D may be reported in more than one technology focus area. Some R&D is not classified in any technology focus area.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2012.