

**Table 2. Domestic R&D costs, by selected industry and type of cost, for companies with 1–9 employees: 2023**

(Thousands of dollars)

| Industry                                                         | NAICS code                            | Total     | Salaries,<br>wages, and<br>fringe<br>benefits | Expensed<br>machinery<br>and<br>equipment | Materials<br>and<br>supplies | Payments to<br>others for<br>R&D | Depreciation<br>on R&D<br>property and<br>equipment | All other<br>costs |
|------------------------------------------------------------------|---------------------------------------|-----------|-----------------------------------------------|-------------------------------------------|------------------------------|----------------------------------|-----------------------------------------------------|--------------------|
| All selected industries                                          | 31–33, 42,<br>51, 5413,<br>5415, 5417 | 7,118,582 | 4,006,505                                     | 169,182                                   | 545,264                      | 1,174,829                        | 48,708                                              | 1,174,095          |
| Manufacturing industries                                         | 31–33                                 | 617,406   | 300,531                                       | 30,077                                    | 76,400                       | 60,131                           | 6,480                                               | 143,788            |
| Food, beverage, and tobacco products                             | 311–12                                | 7,617     | 3,082                                         | 419                                       | 1,441                        | 2,179                            | 0                                                   | 496                |
| Textile, apparel, and leather products                           | 313–16                                | 5,748     | 2,896                                         | 0                                         | 1,916                        | 0                                | 0                                                   | 936                |
| Wood products                                                    | 321                                   | 10,390    | 5,547                                         | 0                                         | 163                          | 0                                | 0                                                   | 4,680              |
| Paper                                                            | 322                                   | 0         | 0                                             | 0                                         | 0                            | 0                                | 0                                                   | 0                  |
| Printing and related support activities                          | 323                                   | 91        | 61                                            | 0                                         | 30                           | 0                                | 0                                                   | 0                  |
| Petroleum and coal products                                      | 324                                   | 0         | 0                                             | 0                                         | 0                            | 0                                | 0                                                   | 0                  |
| Chemicals                                                        | 325                                   | 188,629   | 87,990                                        | 5,958                                     | 22,221                       | 17,511                           | 1,578                                               | 53,372             |
| Pharmaceuticals and medicines                                    | 3254                                  | 54,548    | 21,996                                        | 1,209                                     | 8,796                        | 12,251                           | 737                                                 | 9,560              |
| Chemicals, excluding pharmaceuticals                             | other 325                             | 134,081   | 65,994                                        | 4,749                                     | 13,425                       | 5,259                            | 841                                                 | 43,812             |
| Plastics and rubber products                                     | 326                                   | 22,811    | 10,773                                        | 5,647                                     | 2,552                        | 2,041                            | 29                                                  | 1,769              |
| Nonmetallic mineral products                                     | 327                                   | 4,070     | 2,877                                         | 792                                       | 276                          | 0                                | 0                                                   | 125                |
| Primary metals                                                   | 331                                   | 1,226     | 688                                           | 130                                       | 37                           | 371                              | 0                                                   | 0                  |
| Fabricated metal products                                        | 332                                   | 6,546     | 3,321                                         | 311                                       | 1,429                        | 184                              | 45                                                  | 1,256              |
| Machinery                                                        | 333                                   | 40,561    | 23,979                                        | 2,283                                     | 5,198                        | 1,354                            | 236                                                 | 7,511              |
| Computer and electronic products                                 | 334                                   | 239,993   | 117,247                                       | 8,982                                     | 24,710                       | 23,908                           | 1,594                                               | 63,552             |
| Semiconductor and other electronic components                    | 3344                                  | 69,842    | 35,969                                        | 1,385                                     | 6,719                        | 11,112                           | 377                                                 | 14,280             |
| Navigational, measuring, electromedical, and control instruments | 3345                                  | 138,980   | 58,435                                        | 5,802                                     | 14,919                       | 11,749                           | 1,091                                               | 46,983             |
| Other computer and electronic products                           | other 334                             | 31,171    | 22,844                                        | 1,795                                     | 3,072                        | 1,046                            | 125                                                 | 2,289              |
| Electrical equipment, appliances, and components                 | 335                                   | 19,464    | 9,690                                         | 1,646                                     | 2,989                        | 2,559                            | 708                                                 | 1,872              |
| Transportation equipment                                         | 336                                   | 17,245    | 4,856                                         | 1,340                                     | 3,124                        | 3,057                            | 1,781                                               | 3,088              |
| Aerospace products and parts                                     | 3364                                  | 6,727     | 2,058                                         | 823                                       | 1,205                        | 1,244                            | 125                                                 | 1,272              |
| Other transportation equipment                                   | other 336                             | 10,518    | 2,798                                         | 517                                       | 1,918                        | 1,812                            | 1,656                                               | 1,816              |
| Furniture and related products                                   | 337                                   | 307       | 174                                           | 79                                        | 40                           | 14                               | 0                                                   | 0                  |
| Miscellaneous manufacturing                                      | 339                                   | 52,709    | 27,350                                        | 2,489                                     | 10,276                       | 6,953                            | 509                                                 | 5,131              |
| Selected nonmanufacturing industries                             | 42, 51, 5413,<br>5415, 5417           | 6,501,176 | 3,705,974                                     | 139,104                                   | 468,864                      | 1,114,699                        | 42,228                                              | 1,030,307          |
| Wholesale trade                                                  | 42                                    | 186,364   | 119,346                                       | 12,111                                    | 17,743                       | 12,285                           | 1,655                                               | 23,225             |
| Information                                                      | 51                                    | 944,298   | 761,867                                       | 15,179                                    | 38,615                       | 31,442                           | 1,812                                               | 95,383             |
| Software publishers                                              | 5112                                  | 770,221   | 647,291                                       | 8,669                                     | 24,544                       | 23,120                           | 1,088                                               | 65,508             |
| Information, excluding software publishers                       | 51 less<br>5112                       | 174,077   | 114,575                                       | 6,510                                     | 14,071                       | 8,322                            | 724                                                 | 29,875             |
| Architectural, engineering, and related services                 | 5413                                  | 632,387   | 368,609                                       | 22,057                                    | 108,077                      | 36,706                           | 5,109                                               | 91,828             |

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|-----------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-----------------------------------------------|-------------------------------------------|------------------------------|----------------------------------|-----------------------------------------------------|--------------------|
| Computer systems design<br>and related services                                                                                   | 5415       | 1,635,359 | 1,250,738                                     | 26,552                                    | 52,706                       | 79,256                           | 4,399                                               | 221,708            |
| Scientific research and<br>development services                                                                                   | 5417       | 3,102,768 | 1,205,413                                     | 63,206                                    | 251,723                      | 955,009                          | 29,254                                              | 598,163            |
| Research and<br>development in<br>nanotechnology                                                                                  | 541713     | 113,214   | 54,244                                        | 6,779                                     | 12,063                       | 16,596                           | 1,890                                               | 21,642             |
| Research and<br>development in<br>biotechnology (except<br>nanobiotechnology)                                                     | 541714     | 1,466,282 | 488,830                                       | 19,516                                    | 110,894                      | 582,839                          | 13,349                                              | 250,854            |
| Research and<br>development in the<br>physical, engineering, and<br>life sciences (except<br>nanotechnology and<br>biotechnology) | 541715     | 1,509,868 | 654,709                                       | 36,708                                    | 127,962                      | 354,497                          | 14,016                                              | 321,976            |
| Social sciences and<br>humanities research and<br>development                                                                     | 541720     | 13,404    | 7,629                                         | 202 r                                     | 805 r                        | 1,078                            | 0                                                   | 3,690              |

r = relative standard error > 50%.

NAICS = 2022 North American Industry Classification System.

**Note(s):**

Detail may not add to total because of rounding or unavailable NAICS detail for select records beyond the 4-digit industry classification. Industry classification is based on dominant establishment payroll. Statistics are representative of companies located in the United States that performed or funded R&D.

**Source(s):**

National Center for Science and Engineering Statistics and Census Bureau, 2024 Annual Business Survey: Data Year 2023.