

JEFFERSONVILLE, IN 47132-0001

U.S. DEPARTMENT OF COMMERCE U.S. CENSUS BUREAU

FORM

BRD-1 (12-27-2022)

2022 BUSINESS ENTERPRISE RESEARCH AND DEVELOPMENT SURVEY

OMB No. 0607-0912: Approval Expires 12/31/2024

DUE DATE: Need help or have questions about filling out the form? Visit https://www.census.gov/ programs-surveys/brds/ information.html Here, you can access question-by-question detailed instructions and learn more about the survey. Call toll-free 1-800-416-3262, between 8:00 a.m. and 8:00 p.m. Eastern time, Monday through Friday. Please file your form electronically (see details below). Or mail your completed form to: U.S. CENSUS BUREAU 1201 EAST 10th STREET

INTERNET REPORTING OPTION AVAILABLE Please complete this survey online at: https://portal.census.gov

(Please correct any errors in this mailing address)

Authentication Code:

YOUR RESPONSE IS REQUIRED BY LAW. Title 13, United States Code, Sections 8(b), 131, and 182, and Title 42, United States Code, Sections 1861-76 (National Science Foundation Act of 1950, as amended), and Section 505 within the America COMPETES Reauthorization Act of 2010 authorize this collection. Sections 224 and 225 of Title 13 require your response. The U.S. Census Bureau is required by Section 9 of Title 13 to keep your information **CONFIDENTIAL** and can use your responses only to produce statistics. The Census Bureau is not permitted to publicly release your responses in a way that could identify your business, organization, or institution. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

THIS COLLECTION HAS BEEN APPROVED by the Office of Management and Budget (OMB). The eight-digit OMB approval number is 0607-0912 and appears at the upper right corner of this page. Without this approval, we could not conduct this survey.

We estimate this survey will take an average of 2 hours and 37 minutes to complete. More information about this estimate and an email address where you may write with comments is on the back of this form.

THANK YOU – YOUR RESPONSE IS IMPORTANT. Accurate and timely statistical information could not be produced without your cooperation and goodwill. Thank you.

~ This survey is jointly conducted by the U.S. Census Bureau and the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation. ~

Table of Contents

This survey is divided into seven sections based on subject matter. You may need to collaborate with colleagues in different departments to complete all sections. The following table of contents summarizes the subject matter covered by each section and what is required to complete them.

Topics include company ownership, business activities, revenues, and employees.

Topics include geographic location and accounting details related to R&D expenses.

Section 3: Costs Paid For by Othersp.19

Topics include customer-sponsored work and activities funded through grants and/or reimbursements.

Topics include stock of capital, both tangible and intangible, your company owned and acquired.

Topics include characteristics of R&D reported in Sections 2 and 3. Requires familiarity with the technical and strategic aspects of your company's R&D.

Topics include your company's employees, focusing on those who work on R&D activities.

Topics include patenting, licensing, and other technology transfer activities.

Topics include state and federal tax credits applied for by your company.

Changes from the 2021 survey

Questions related to detail of R&D performed by others, as well as activities with academia were removed from Section 2. Questions related to industry of business and specific federal agency funding R&D were removed from Section 3. Questions that asked for percentage of R&D with specific application areas were removed from Section 5. Questions related to Intellectual Property and Technology Transfer were reintroduced to Section 7. For a list of specific changes go to

https://www.census.gov/programs-surveys/brds/about/faq.html.

Electronic materials

Electronic versions of the questionnaire and related information are available at https://www.census.gov/programs-surveys/brds/information.html.

Available materials include:

- PDF copy of the questionnaire
- Excel worksheets for each section that can be completed and uploaded
- Question-by-guestion instructions, definitions, and examples that provide clarification
- Answers to frequently asked questions, including how the data will be used

Filing electronically

You may submit your survey online via a secure website. Online submission allows you to save the data as you go, so you can exit and resume later where you left off. It also allows you to save an electronic copy of your completed survey. To submit online, follow the instructions at https://www.census.gov/programs-surveys/brds/information.html.

What is Research and Development (R&D)?

Research and development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available knowledge. This includes: a) activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses (basic research); b) activities aimed at solving a specific problem or meeting a specific commercial objective (applied research); and c) systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes (development). R&D includes both direct costs such as salaries of researchers as well as administrative and overhead costs clearly related to the company's R&D.

The term R&D does **NOT** include expenditures for:

- Costs for routine product testing, quality control, and technical services unless they are an integral
 part of an R&D project
- Market research
- Efficiency surveys or management studies
- Literary, artistic, or historical projects, such as films, music, or books and other publications
- Prospecting or exploration for natural resources

Does R&D include development of software and Internet applications?

Research and development activity in software and Internet applications refers **only** to activities with an element of uncertainty and that are intended to close knowledge gaps and meet scientific and technological needs. Report in this survey all software R&D as defined here regardless of the eventual user (internal or external).

R&D activity in software INCLUDES:

- Software development or improvement activities that expand scientific or technological knowledge
- Construction of new theories and algorithms in the field of computer science

R&D activity in software EXCLUDES:

- Software development that does not depend on a scientific or technological advance, such as
 - supporting or adapting existing systems
 - adding functionality to existing application programs, and
 - routine debugging of existing systems and software
- Creation of new software based on known methods and applications
- Conversion or translation of existing software and software languages
- Adaptation of a product to a specific client, unless knowledge that significantly improved the base program was added in that process

Reporting unit

The reporting unit is your company, including all majority-owned subsidiaries regardless of location. Majority ownership is defined as more than 50 percent ownership. For reporting purposes, exclude data for any companies that are minority-owned by your company. If your company is majority-owned by a company located outside the 50 United States and D.C. (foreign parent), the reporting unit for the survey is only your U.S.-located company, including all its majority-owned subsidiaries regardless of location. For reporting purposes, your foreign parent and any foreign affiliates your company does not own should be treated the same as any business partner, customer, or supplier you do not own.

Reporting period

Report data for the calendar year 2022, if possible, or for your company's fiscal year ending between April 2022 and March 2023.

Estimates are acceptable

Please report all items to the best of your ability.

To speak with a survey specialist, call 1-800-416-3262.

Survey specialists are available Monday through Friday, from 8:00 a.m. to 8:00 p.m. Eastern time, to help with any questions you may have.

| | SECTION 1 Company Information |
|-----|---|
| 1-1 | Has your company ceased operations? |
| | Yes → Please provide the following information: (MM) (DD) (YYYY) |
| | Date your company ceased operations |
| | REPORTING INSTRUCTIONS: If your company ceased operations on or after April 1, 2022, report only for the period January 1, 2022 to the date you company ceased operations. If your company ceased operations before April 1, 2022, complete Question 1-7 and return this form to the Census Bureau - you are not required to complete the rest of this survey. |
| | □ No |
| 1-2 | Did another U.S. company own more than 50% of the voting interest in your company during 2022? |
| | ☐ Yes → Please provide the following information: |
| | Name of parent company |
| | |
| | EIN of owner (9 digits) (MM) (DD) (YYYY) |
| | Date parent company purchased your company |
| | Is the parent company a holding company or a private equity firm [shell company, investment company, and the like]? |
| | Yes |
| | □ No |
| | REPORTING INSTRUCTIONS FOR U.SOWNED COMPANIES: If your company was purchased by a holding company or private equity firm, you are required to complete the rest of this survey (regardless of purchase date). |
| | Otherwise, if your company was purchased on or after April 1, 2022, report only for the period January 1, 2022 to the date of purchase. If your company was purchased before April 1, 2022, then complete Question 1-7 and return this form to the Census Bureau - you are not required to complete the rest of this survey. |
| | □ No |
| 1-3 | Will the information in this survey be reported for the 2022 calendar year? |
| | □ Yes |
| | No → Enter time period covered below: |
| | (MM) (YYYY) (MM) (YYYY) |
| | From to |

| 1-4 | Was | your company a majority-owned | l subsidiary | y of a foreign company i | in 2022? | | | | |
|--|------------------------|---|--|---|----------------------------|--|--|--|--|
| | | Yes → Please provide the follow | ing inform | ation: | | | | | |
| | | Name of parent company | | | | | | | |
| | | | | | | | | | |
| REPORTING INSTRUCTIONS FOR FOREIGN-OWNED COMPANIES: If your company is owned by a foreign parent, the reporting unit for the survey is your U.Slocated company, including all your majority-owned subsidiaries and divisions regard location. For reporting purposes, your foreign parent and any foreign affiliates your comp does not own should be treated the same as any business partner, customer, or supplier not own. | | | | | | | | | |
| | | If your company pays a foreign parer responses in Section 2 as "costs for p | | | included in your | | | | |
| | | If your foreign parent pays or reimbu should be included in your responses others." | | | | | | | |
| | | Report your survey data using U.S. G recognized by the Financial Accountin International Financial Reporting Starthat would be required to conform to | ng Standard E Idards (IFRS), | Board (FASB). If your company | y follows | | | | |
| | | No | | | | | | | |
| 1-5 | | our company own more than 50 diaries outside the 50 United S | | | ns or | | | | |
| | | Yes → Include data for these ope | erations/su | bsidiaries in your survey | / responses | | | | |
| | | No | | | | | | | |
| 1-6 | Did y | our company have discontinue | d operation | ıs in 2022? | | | | | |
| | | Yes → Include data for these op | erations in | your survey responses | | | | | |
| | | No | | | | | | | |
| 1-7 | Who | is the survey coordinator? | | | | | | | |
| | infor surv to re | survey coordinator is the person at mation, ensuring instructions are for ey coordinator may not be able to per equest information from other know unting, human resources, and legal | ollowed, and personally colledgeable re | I submitting the completed omplete the complete the entire survey a | I survey. The and may need | | | | |
| | Name | | | | | | | | |
| | | | | | | | | | |
| | Title | | Telephone Area code | Number | Extension | | | | |
| | | | | | | | | | |
| | E-mai | I address | | | | | | | |
| | | | | | | | | | |

| | Include:Full- and part-time employ | vees. | | Number |
|------|--|--|--|--|
| | Exclude: | 665 | | |
| | Leased or temporary empl | oyees and consultants | | |
| | How many of the employ your company's domesti | | | yees of |
| | Domestic operations empl first quarter filing of IRS Forn | | | ported on the |
| | | (1) Domestic operations | (2) Foreign operations | (3) Total employees |
| | Employees | | | Total equals Question |
| f ti | he number reported in Ques | stion 1-9, column 1, was | fewer than 10, return | • |
| Cei | he number reported in Ques nsus Bureau - you are not re | equired to complete the | rest of this survey. | |
| | | | | |
| 111 | ness Codes | | | |
| | | | | |
| 0 | Please describe your cor | mpany's primary busin | ess activity during 2 | 2022. |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 1 | | | | |
| | List all applicable busine in 2022. | ess codes in which you | ır company operate | d worldwide |
| | NOTE: These codes will b may differ from industry c | e used to describe both odes used by other gove | business activities and r | I R&D activities and |
| | in 2022. NOTE: These codes will b | e used to describe both odes used by other gove business codes are ava | business activities and rernment surveys and r | I R&D activities and eports. Tools to hel |
| | NOTE: These codes will be may differ from industry convolves you search for appropriate | e used to describe both odes used by other gove business codes are ava | business activities and rernment surveys and r | I R&D activities and eports. Tools to hel |
| | NOTE: These codes will be may differ from industry convolves you search for appropriate | e used to describe both odes used by other gove business codes are ava | business activities and rernment surveys and r | I R&D activities and eports. Tools to hel |
| | in 2022. NOTE: These codes will b may differ from industry c you search for appropriate https://www.census.gov/pr | e used to describe both odes used by other gove business codes are ava | business activities and ernment surveys and r ilable at ormation/brdshelp/bus | I R&D activities and eports. Tools to hel |
| | in 2022. NOTE: These codes will b may differ from industry c you search for appropriate https://www.census.gov/pr | e used to describe both odes used by other gove business codes are ava | business activities and ernment surveys and r ilable at ormation/brdshelp/bus | I R&D activities and eports. Tools to hel |
| | in 2022. NOTE: These codes will b may differ from industry c you search for appropriate https://www.census.gov/pr | e used to describe both odes used by other gove business codes are ava | business activities and ernment surveys and r ilable at ormation/brdshelp/bus | I R&D activities and eports. Tools to hel |
| | in 2022. NOTE: These codes will b may differ from industry c you search for appropriate https://www.census.gov/pr | e used to describe both odes used by other gove business codes are ava | business activities and ernment surveys and r ilable at ormation/brdshelp/bus | I R&D activities and eports. Tools to hel |
| | in 2022. NOTE: These codes will b may differ from industry c you search for appropriate https://www.census.gov/pr | e used to describe both odes used by other gove business codes are ava | business activities and ernment surveys and r ilable at ormation/brdshelp/bus | I R&D activities and eports. Tools to hel |
| | in 2022. NOTE: These codes will b may differ from industry c you search for appropriate https://www.census.gov/pr | e used to describe both odes used by other gove business codes are ava | business activities and ernment surveys and r ilable at ormation/brdshelp/bus | I R&D activities and eports. Tools to hel |
| | in 2022. NOTE: These codes will b may differ from industry c you search for appropriate https://www.census.gov/pr | e used to describe both odes used by other gove business codes are ava | business activities and ernment surveys and r ilable at ormation/brdshelp/bus | I R&D activities and eports. Tools to hel |

| 1-12 | What was the amoun for the year 2022? | t of your comp | oany's <u>worldwide</u> | sales and reve | enues Mil. | Thou. |
|------|---|---|---------------------------|---------------------------------|---|-----------------|
| | Include:Sales and operating re | venues from disc | ontinued operations | | | |
| | | | | | | |
| 1-13 | How much of the am from domestic opera | | in Question 1-12 | was attributab | le to or or | iginated |
| | Include:Sales and operating reincluding foreign subs | | customers, | | | |
| | Example: U.S. Manufact customers around the wo operations are located into of its sales in this question | orld. However, bed side the United St | cause all its | \$Bil. | Mil. | Thou. |
| | or its sales in this question | /11. | | | | |
| 1-14 | How much of the 202 code listed or amend (1) Worldwide sales (2) Sales and operat | ed in Question and operating ing revenues f | 1-11: revenues reporte | ed in Question berations report | 1-12 ed in Ques (2) operating re | stion 1-13 |
| | Business code | operati \$Bil. | ng revenues Mil. Thou. | from do \$Bil. | mestic opera | ntions Thou. |
| | Busiliess code | Э БІІ. | Mil. Tilou. | Ф БП. | IVIII. | Tilou. |
| | a | | | | | |
| | b | | | | | |
| | c | | | | | |
| | d | | | | | |
| | e | | | | | |
| | f | | | | | |
| | g | | | | | |
| | h. | | | | | |
| | i. Less eliminations the sales and revenues that are eliminated in order to consolidate the business codes | | | | | |
| | j. Total | Total equa | ls Question 1-12 | Total ed | quals Questic | on 1-13 |
| | | | | | | |

SECTION 2

R&D Paid For by Your Company

Who should answer this section?

Persons familiar with accounting concepts and with access to financial records related to your company's R&D activities should complete this section.

What does this section cover?

This section requests information about your company's R&D at multiple levels of detail: for your worldwide consolidated enterprise, for units or parts of your company defined by geography (countries, states, specific location), and for parts of your company defined by business code.

| 2-1 | What was the worldwide R&D expense (both direct and in 2022? | direct and indirect) for yo | | | |
|-----|---|-----------------------------|--------|-------|--|
| | If your company is publicly traded, this amount is equivalent | | | | |
| | to that disclosed on SEC Form 10-K as defined in FASB ASC Topic | \$Bil. | Mil. | Thou | |
| | 730 Research and Development | фDII. | IVIII. | 11100 | |

If your company is foreign-owned, refer to the instructions on page 5. Additional guidance, such as for privately owned companies, is available online at https://www.census.gov/ programs-surveys/brds/information/brdshelp.html#q2-1

NOTE: Report your company's R&D expense even if the amount is

| | not considered material for your company's financial statements. | | | | |
|-----|--|------|--------|------|----|
| 2-2 | Does the amount reported in Question 2-1 include any of the follow | ing | costs? | | |
| | a. Collaborative R&D that was reimbursed by business partners, such as through cost-sharing agreements | | Yes | | No |
| | b. R&D paid for by grants (government or private foundations) | | Yes | | No |
| | c. R&D paid for by customers (customer-sponsored R&D) | | Yes | | No |
| | d. Technical services not an integral part of an R&D project (such as product support provided by R&D employees) | | Yes | | No |
| | e. Bid and proposal costs | | Yes | | No |
| | f. Expenses for the acquisition of in-process R&D (IPR&D) or the impairment of intangible IPR&D assets | | Yes | | No |
| | g. Phase IV clinical trials | | Yes | | No |
| 2-3 | If you answered "Yes" to any of the costs in Question | Mil. | | Thou | ı. |
| | 2-2, what was the amount of these costs that were included in your response to Question 2-1? | | | | |
| 2-4 | Subtract Question 2-3 from Question 2-1 and enter the \$Bil. | Mil. | | Thou | ı. |
| | result here. This is the total R&D paid for by your company in 2022. | | | | |
| | Is the amount entered in Question 2-4: | | | | |
| | \$0 → Skip to Section 3 on page 19. | | | | |

Form BRD-1

Less than \$1 Million → Stip to Section 2 Worksheet on page 18 and then

continue with Section 3 on page 19.

\$1 Million or greater → Continue with Question 2-5.

SECTION 2

| Indir | rect R&D charges | | | | |
|-------|---------------------------------------|---|-----------|-----------|-------|
| 2-5 | was for R&D costs through indirect ch | mount reported in Question 2-4 your company plans to recoup narges on U.S. federal government independent R&D)? | \$Bil. | Mil. | Thou. |
| R&D | paid for by you | company | | | |
| 2-6 | Of the amount repo | orted in Question 2-4, what were the conded in Question 1-11? | sts for e | ach busin | ess |
| | | plicable to more than one business code allo oportion to operating revenues is acceptable unlo e appropriate. | | | |
| | Business code | | \$Bil. | Mil. | Thou. |
| | a | | | | |
| | | | | | |
| | b. | | | | |
| | c | | | | |
| | | | | | |
| | d. | | | | |
| | e | | | | |
| | f. 0000 | | | | |
| | | | | | |
| | g. | | | | |
| | h. | | | | |
| | i Total (equals Oue | estion 2-4) | | | |
| | i. Iotai (equais Que | 511011 2-4/ | | | |
| 2-7 | Of the amount repo | orted in Question 2-4, what costs were | incurred | by your | |
| | a. Domestic United S | States (50 states and D.C.) [Include | \$Bil. | Mil. | Thou. |
| | | y domestic operations that is paid sidiaries] | | | |
| | performed by fore | s (also, Puerto Rico) [Include R&D eign subsidiaries that is paid for ations] | | | |
| | c. Total (equals Que | estion 2-4) | | | |

| 2- | How much of the (1) domestic, (2) foreign, and (3) worldwide R&D paid for b your company in 2022 was for each of the following types of costs? | у |
|----|---|-----------------|
| | Indirect costs that are allocated to R&D should be reported in the "All other costs" line of if no other category is applicable. Refer to the question instructions for specific examples. | nly |
| | (1) (2) (3) Domestic Foreign Worldwide \$Bil. Mil. Thou. \$Bil. Mil. Thou. \$Bil. Mil. | <u>Thou.</u> |
| a. | a. Salaries, wages, and fringe benefits | |
| | | |
| b. | b. Stock-based compensation | |
| | | |
| C. | c. Leased employees and temporary staffing, including on-site consultants, working on R&D | |
| А | d. Expensed equipment (not capitalized) | |
| u. | C. Expensed equipment (not capitalized) | |
| e. | e. Materials and supplies | |
| | | |
| f. | f. Leased facilities and equipment | |
| | | |
| g. | g. Depreciation and amortization on property, plant, equipment, and intangible assets | |
| | | |
| h. | h. Royalties and licensing fees (including payments made to others for the use of patents and other forms of property used in your company's R&D) | of intellectual |
| | | |
| i. | i. Collaborative R&D payments (include joint development agreements) | |
| | | |
| j. | j. Contract R&D (include payments to your company's foreign parent for R&D) | |
| k | k. Other purchased convises | |
| K. | k. Other purchased services | |
| | | |
| | Question continues on next page | |

| 2-8 (Continued) | | | | | |
|---------------------------------------|-------------------------------------|-----------------------------------|--------------------------|--------------------------------|--|
| (1) Dome | stic | | (2) Foreign | ΦD:I | (3) Worldwide |
| \$Bil. Mil. I. All other costs (incl | Thou. | | Mil. Thou. | <u>\$Bil.</u> d with your c | Mil. Thou. |
| | | | | | |
| m. Total | | | | | |
| 00 00 | | | | | |
| Total equals Ques | stion 2-7, line a | Total equals | Question 2-7, line b | Tota | l equals Question 2-4 |
| | s i and j for eac performed by o | | and enter the res | ult here. | |
| (1) Dome |) | | (2) Foreign | | (3) Worldwide |
| \$Bil. Mil. | Thou. | | Mil. Thou. | \$Bil. | Mil. Thou. |
| | | | | | |
| | | | | | |
| | from 2-8, line reperformed by year | | column and ente | r the resul | t here. |
| (1) Dome | | | — (2) Foreign | | (3) Worldwide |
| \$Bil. Mil. | Thou. | \$Bil. | Mil. Thou. | \$Bil. | Mil. Thou. |
| | | | | | |
| _ | | | | | |
| in the follow | ing locations? | For full list of co | untries in each region s | ee Question b | D was performed y Question Guidance at |
| | us.gov/programs-surv Bil. Mil. | <u>reys/brds/informa</u> Thou. | ation/brdshelp.html#q2- | <u>11</u> . \$Bil. | Mil. Thou. |
| | | | E | | |
| Canada | | | Finland | | |
| Puerto Rico | | | France | | |
| _ | | | | | |
| Europe \$ | Bil. Mil. | Thou. | Germany | | |
| Austria | | | Hungary | . 00 | |
| Belgium | | | Ireland | . 00 | |
| Czech Rep | | | ltaly | | |
| | | | | | |
| Denmark | | | Luxembourg | . 00 | |

| 2-15 (Continue | d) | | | | | | |
|---|--------|------|-------|-------------------------------------|--------|------|-------|
| | \$Bil. | Mil. | Thou. | | \$Bil. | Mil. | Thou. |
| Netherlands | | | | Hong Kong | | | |
| Norway | | | | India | | | |
| Poland | | | | Indonesia | | | |
| Russia | | | | Japan | | | |
| Spain | | | | Malaysia | | | |
| Sweden | | | | New Zealand | | | |
| Switzerland | | | | Singapore | | | |
| Turkey | | | | South Korea | | | |
| United Kingdom | | | | Taiwan | | | |
| Other Europe | | | | Thailand | | | |
| | | | | Other Asia/ Pacific | | | |
| Latin America/ Other Western Hemisphere | \$Bil. | Mil. | Thou. | I dellie | | | |
| Argentina | | | | Middle East | \$Bil. | Mil. | Thou. |
| Brazil | | | | Israel | | | |
| Chile | | | | Other Middle East | | | |
| Mexico | | | | Africa | \$Bil. | Mil. | Thou. |
| Other Latin America/OWH | | | | South Africa | | | |
| | | | | Other Africa | | | |
| Asia and Pacific | \$Bil. | Mil. | Thou. | Total (equals Question 2-10, | | | |
| Australia | | | | column 2) | | | |
| China | | | | | | | |
| | | | | | | | |

SECTION 2

| | | amount r | | Question 2-10, colur | nn 1, w | as perforn | ned in |
|----------------------|--------|----------|---------------|----------------------|---------|------------|--------|
| | \$Bil. | Mil. | Thou. | l | \$Bil. | Mil. | Thou. |
| Alabama | | | | Maine | | | |
| Alaska | | | | Maryland | | | |
| Arizona | | | | Massachusetts | | | |
| Arkansas | | | | Michigan | | | |
| California | | | | Minnesota | | | |
| Colorado | | | | Mississippi | | | |
| Connecticut | | | | Missouri | | | |
| Delaware | | | | Montana | | | |
| District of Columbia | | | | Nebraska | | | |
| Florida | | | | Nevada | | | |
| Georgia | | | | New Hampshire | | | |
| Hawaii | | | | New Jersey | | | |
| Idaho | | | | New Mexico | | | |
| Illinois | | | | New York | | | |
| Indiana | | | | North Carolina | | | |
| lowa | | | | North Dakota | | | |
| Kansas | | | | Ohio | | | |
| Kentucky | | | | Oklahoma | | | |
| Louisiana | | | | Oregon | | | |
| | | Q | uestion conti | nues on next page | | | |

| 2-12 (Continued | | | | | 4 D.1 | | | | | |
|-----------------|--|------|-------|---|--------------|------|-------|--|--|--|
| Pennsylvania | \$Bil. | Mil. | Thou. | Vermont | \$Bil. | Mil. | Thou. | | | |
| Rhode Island | | | | Virginia | | | | | | |
| South Carolina | | | | Washington | | | | | | |
| South Dakota | | | | West Virginia | | | | | | |
| Tennessee | | | | Wisconsin | | | | | | |
| Texas | | | | Wyoming | | | | | | |
| Utah | | | | Total (equals Question 2-10, column 1) | | | | | | |
| Address 2 City | | | | | State | ZIP | | | | |
| column 1, | How much of the amount reported in Question 2-10, column 1, was from the location identified in Question 2-13? \$\frac{\\$\\$\\$Bil.}{\}\} \text{Mil.} \text{Thou.} | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| Address 2 | | | |
|-----------------------|-----------------------------------|-------------------------|---------|
| | | | |
| City | | State Z | IP |
| | | | |
| | | | |
| How much of the | amount reported in Question 2-10, | \$Bil. Mil. | Th |
| Question 2-15? | m the location identified in | | |
| Business code | | by your | company |
| | | Domestic R8 by your | |
| Business code | | \$Bil. Mil. | Th |
| a | | | |
| | | | |
| b | | 00 00 | |
| b. 0000 | | 00 00 | |
| b. 00000 c. 000000 | | 00 00 | |
| | | 00 00 00 00 00 00 | |
| c. d. | | 00 00 00 00 00 00 | |
| c | | | |
| c. d. | | 00 00 | |
| c. d. d. f. | | | |
| c. d. e. | | | |
| c. d. d. f. | | | |
| c. d. d. g. | | | |

| DOD | 4 | | | land a | atata a | daaa | | | |
|------|-----------------------|--|--|--|--|--|-------------|------------------------|------------|
| K&L | tran | sactions | petween | iegai en | itities un | aer comr | non owr | nersnip | |
| 2-18 | | much of th column 1, | | | | | | | estion |
| | for Int for arr | sts for R&D por a foreign sub- er-company tra- eign subsidian rangements | sidiary ansactions pa ies for transf | aid to the U er pricing F | Jnited States R&D cost shar | from ing | \$Bil. | Mil. | Thou. |
| 2-19 | | much of th nn 2, was p | | | | | | ed in Ques | tion 2-10, |
| | • Int for arr | sts for R&D po bsidiaries und er-company tr eign subsidiar rangements | er contract fo ansactions pa ies for transf | r your com aid from th er pricing F | pany's U.S. one United Stat R&D cost shar | es to ing | \$Bil. | Mil. | Thou. |
| Proj | ected | R&D for | 2023 | | | | | | |
| 2-20 | (3) w | are your coorldwide R | &D paid fo | r by your | company? | | | | and |
| 2-20 | (3) w | | &D paid for ounts are the | r by your | company? | | | | and |
| | (3) w | orldwide Ra | &D paid for ounts are the | r by your | company? | | | | |
| | (3) w NOTI Ques | orldwide Ra E: These amo stion 2-8, line (1) Domestic | &D paid for ounts are the om. | r by your e 2023 pro | company? ojections for (2) Foreign | the amoun | ts reported | in (3) Worldwide | |
| | \$Bil. | orldwide Ra E: These amo stion 2-8, line (1) Domestic | Thou. Thou. e amount recontract Reners for contract Reners for c | \$Bil. ceported is to service allaborative 23 project | (2) Foreign Mil. in Question ces and prove R&D? | Thou. 1 2-20, columents of the amounts of the amou | \$Bil. | in (3) Worldwide | |

SECTION 2

| 2-22 Who was primarily responsible for completing this se | ection? | | | | | | | | | |
|---|--------------|--|--|--|--|--|--|--|--|--|
| Same person mentioned in Question 1-7 | | | | | | | | | | |
| ☐ Another person → Please provide the following in | formation: | | | | | | | | | |
| Name | | | | | | | | | | |
| | | | | | | | | | | |
| Telephone | | | | | | | | | | |
| Title Area code Number | er Extension | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

| CECTION O MODICULET | | |
|--|-------------|-------|
| SECTION 2 WORKSHEET | + c = = = = | |
| Complete if amount reported in Question 2-4 is less that | n \$1 Mil | lion |
| Of the total R&D paid for by your company reported in Question 2-were incurred in the following locations? | 4, what c | osts |
| Domestic United States (50 states and D.C.) [Include R&D performed by domestic operations that is paid for by foreign subsidiaries] | \$Mil. | Thou. |
| b. All other countries (also, Puerto Rico) [Include R&D performed by foreign subsidiaries that is paid for by domestic operations] | | |
| c. Total | | |
| How much of the amount reported in Question 1, line a, was for ea | ch of the | |
| following types of costs? | \$Mil. | Thou. |
| a. Salaries, wages, and fringe benefits | | |
| b. Depreciation and amortization on property, plant, equipment, and intangible assets | | |
| c. Collaborative R&D payments (include joint development agreements) | | |
| d. Contract R&D (include payments to your company's foreign parent for R&D) | | |
| e. All other costs (including administrative and overhead costs clearly associated with your company's R&D) | | |
| f. Total (equals Question 1, line a) | | |
| Add Question 2, lines a, b, and e, and enter the result here. This is the domestic R&D paid for and performed by your company in 2022. | \$Mil. | Thou. |
| Of the domestic R&D paid for and performed by your company rep Question 3, how much was for the following categories? | orted in | |
| Basic research activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses | \$Mil. | Thou. |
| b. Applied research activities aimed at solving a specific problem or meeting a specific commercial objective c. Development systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes | | |
| | | |

SECTION 3

Costs Paid For by Others

Who should answer this section?

Persons familiar with accounting concepts and with access to financial records related to your company's activities paid for by others should complete this section.

What does this section cover?

Topics include customer-sponsored work and activities funded through grants, contracts, and/or reimbursements. Costs for these activities are requested at multiple levels of detail: for your worldwide consolidated enterprise, for units or parts of your company defined by geography (countries, states), and for parts of your company defined by business code.

| 3-1 | th | What were your company's <u>worldwide costs</u> (both direct and indirect) in 2022 for he following that were funded, paid for, or reimbursed by others not owned by our company? | | | | | | | | | | |
|-----|----|--|--------|------|-------|--|--|--|--|--|--|--|
| | • | xclude: Costs that were paid for by your company, such as those reported in Payments in excess of the actual cost of the work performed (such a | | | | | | | | | | |
| | | | \$Bil. | Mil. | Thou. | | | | | | | |
| | a. | R&D reimbursed by your company's foreign parent (if you are owned by a foreign parent) | | | | | | | | | | |
| | b. | Collaborative R&D reimbursed by business partners, such as through cost-sharing agreements | | | | | | | | | | |
| | c. | R&D paid for by grants (government or private foundations) | | | | | | | | | | |
| | d. | Defense R&D goods or services provided as a prime or as a sub, to the government and/or government contractors | | | | | | | | | | |
| | | Exclude: Costs for projects that have achieved technical feasibility, such as low-rate initial production. Additional guidance is available online at https://www.census.gov/programs-surveys/brds/information.html | | | | | | | | | | |
| | e. | Medical clinical trial Phase I-III services provided to others not owned by your company (include pass-through costs) | | | | | | | | | | |
| | f. | Medical R&D services, other than clinical trials, provided to others not owned by your company | | | | | | | | | | |
| | g. | Nondefense custom software development and/or computer systems designed for others not owned by your company | | | | | | | | | | |
| | | Exclude: Software development that does not depend on a scientific or technological advance, such as adding functionality to existing application programs, debugging systems, and adapting existing software | | | | | | | | | | |
| | h. | Prototype development, production, and testing for customer's products prior to their introduction to the market (excluding defense-related prototyping reported in line d) | | | | | | | | | | |
| | i. | All other R&D services provided to the Federal Government or to others not owned by your company | | | | | | | | | | |
| | j. | Total | | | | | | | | | | |

| 3-1 (Continued) | | | | | | | | | | |
|---|--|----------------|--------------|--------------|------------------|--------|--|--|--|--|
| The amount entere Is this amount: | The amount entered in Question 3-1, line j is the total R&D paid for by others in 2022. Is this amount: | | | | | | | | | |
| | \$0 to Figure 16 Question 2-4 was also \$0, then you have completed this survey, otherwise skip to Section 4 on page 35. | | | | | | | | | |
| | illion ® Skip to Section 4 on page | | Vorksheet | on page 3 | 33 and ther | , | | | | |
| \$1 Million or gr | reater © Continue v | vith Questio | n 3-2. | | | | | | | |
| R&D paid for by oth | ers | | | | | | | | | |
| | ported in Question | | what costs | were inc | urred | | | | | |
| by your company | in the following lo | cations? | | \$Bil. | Mil. | Thou. | | | | |
| a. Domestic United | States (50 states and | d D.C.) | | | | | | | | |
| | | | | | | | | | | |
| b. All other countries | es (also, Puerto Rico) |) | | | | | | | | |
| c. Total (equals Qu | uestion 3-1, line j) | | | | | | | | | |
| | (1) domestic, (2) fo ach of the followin | | | vide R&D | paid for by | others | | | | |
| | are allocated to R&E is applicable. Refer to t | | | | | У | | | | |
| (1) Domestic | | (2) Foreign | | | (3) Worldwide | | | | | |
| \$Bil. Mil. a. Salaries, wages, and frir | Thou. \$Bil. | Mil. | Thou. | \$Bil. | <u>Mil.</u> | Thou. | | | | |
| | | | | | | | | | | |
| b. Stock-based compensati | ion | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| c. Leased employees and t | emporary staffing, ir | ncluding on-s | ite consulta | ants, workir | ng on R&D | | | | | |
| | | | | | | | | | | |
| d. Expensed equipment (no | ot capitalized) | | | | | | | | | |
| | | | | | | | | | | |
| e. Materials and supplies | | | | | | | | | | |
| o. Materials and supplies | | | | | | | | | | |
| | Question co | ontinues on n | ext page | | | | | | | |

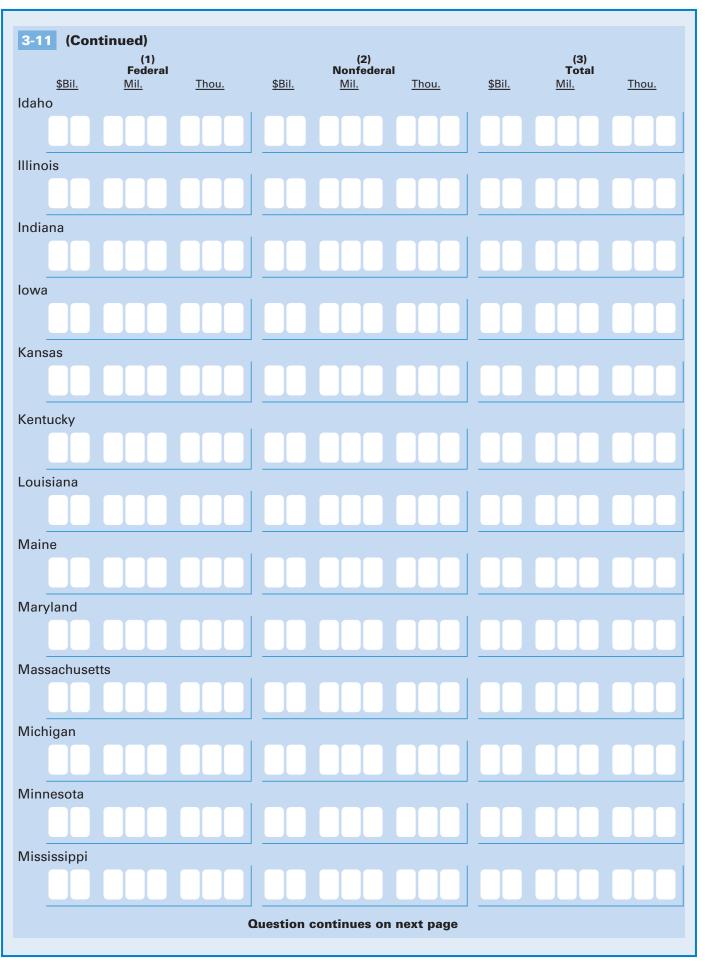
| <u>\$Bil.</u> | ntinued) (1) Domestic Mil. acilities and eq | <u>Thou.</u> Juipment | \$Bil. | (2) Foreign <u>Mil.</u> | <u>Thou.</u> | <u>\$Bil.</u> | (3) Worldwide <u>Mil.</u> <u>Thou.</u> | |
|-------------------------|---|------------------------------|---------------|-------------------------------|---------------|---------------|--|----------|
| g Denrecia | tion and amor | tization on n | property r | plant equipm | ent and in | tangible a | esets | |
| g. Bepredia | | | noperty, p | | | | | |
| h. Royalties property u | s and licensing sed in your compa | fees (includir iny's R&D) | ng payments | made to others | for the use o | f patents and | d other forms of intellectua | al |
| i. Collabor | ative R&D payı | ments (includ | e joint devel | opment agreem | ents) | | | 4 |
| | | | | | | | | |
| j. Contract | R&D (include pa | ayments to yo | our compan | y's foreign par | ent for R&D) | | | |
| k. Other pu | rchased servic | es | | | | | | |
| | | | | | | | | |
| I. All other | costs (including | administrative | and overhea | ad costs clearly | associated | with your c | ompany's K&D) | |
| m. Total | | | | | | | | |
| | | | | | | | | |
| | equals Question | | | uals Question | | | quals Question 3-1, line | <i>j</i> |
| | | | | | | | ıgh R&D costs). | |
| AD.I | (1) Domestic | - | 4 D'' | (2) Foreign | . | 45 .1 | (3) Worldwide | |
| \$Bil. | Mil. | Thou. | \$Bil. | Mil. | Thou. | \$Bil. | Mil. Thou. | |
| | | | | | | | | |
| | tract 3-4 fror is is <u>R&D perfe</u> | | | | | | | |
| | (1) Domestic | | | (2) Foreign | | | (3) Worldwide | |
| \$Bil. | Mil. | Thou. | \$Bil. | Mil. | Thou. | \$Bil. | Mil. Thou. | |
| | | | | | | | | |

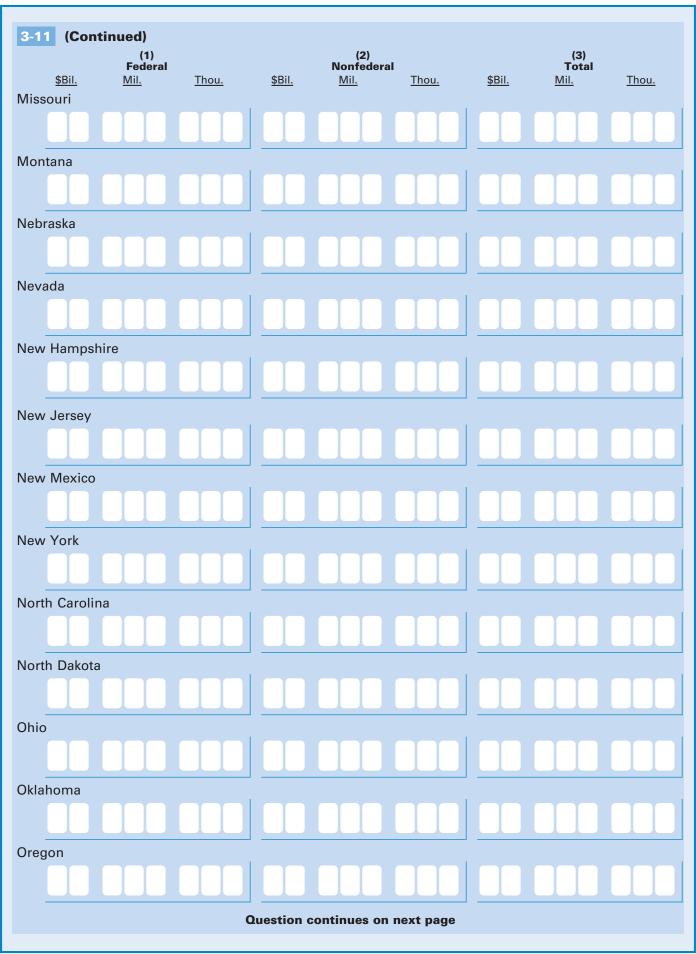
| in the follo | owing lo | cations? | or full list of cou | , column 2, how m | | | |
|----------------|-----------------------|----------------------|----------------------------|---------------------------------|--------|------|-------|
| https://www.ce | snsus.gov/p \$Bil. | rograms-surv Mil. | reys/brds/informa Thou. | tion/brdshelp.html#q3-6. | \$Bil. | Mil. | Thou. |
| Canada | | | | Switzerland | | | |
| Puerto Rico | | | | Turkey | | | |
| Europe | \$Bil. | Mil. | Thou. | United Kingdom | | | |
| Austria | | | | Other Europe | | | |
| Belgium | | | | Latin America/ Other Western | \$Bil. | Mil. | Thou. |
| Czech Rep | | | | Hemisphere | | | Thou. |
| Denmark | | | | Argentina | | | |
| Finland | | | | Brazil | | | |
| riniand | | | | Chile | | | |
| France | | | | Mexico | | | |
| Germany | | | | Other Latin | | | |
| Hungary | | | | America/OWH | \$Bil. | Mil. | Thou. |
| Ireland | | | | Asia and Pacific Australia | | | |
| ireiana | | | | Australia | | | |
| Italy | | | | China | | | |
| Luxembourg | | | | Hong Kong | | | |
| Netherlands | | | | India | | | |
| Norway | | | | Indonesia | | | |
| Poland | | | | Japan | | | |
| Russia | | | | Malaysia | | | |
| Spain | | | | New Zealand | | | |
| Sweden | | | | Singapore | | | |

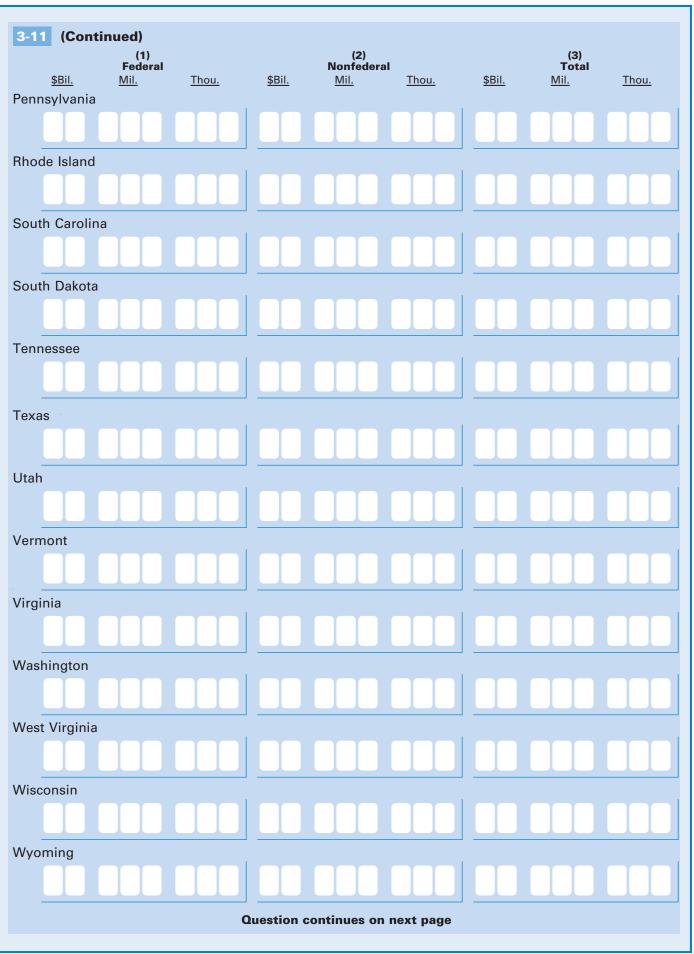
| 3-6 (Continue | ed) | | | | | | |
|--------------------------------|-----------|---------------------------|---------------|---|------------|-------------|-------|
| | \$Bil. | Mil. | Thou. | Africa | \$Bil. | Mil. | Thou. |
| South Korea | | | | South Africa | | | |
| Taiwan | | | | Other Africa | | | |
| Thailand | | | | Total (equals Question 3-5, column 2) | | | |
| Other Asia/ Pacific | | | | 30.a <u>2</u> , | | | |
| Middle East | \$Bil. | Mil. | Thou. | | | | |
| Israel | | | | | | | |
| Other Middle East | | | | | | | |
| amended If R&D is Allocation | in Quest | to more the on to operati | nan one busin | 1, was for each be seen allocate or acceptable unless sor | ı a reason | able basis. | |
| Rusin | | | | | | | |
| Duein | ess code | 1 | | | \$Bil. | Mil. | Thou. |
| a | ess code | | | | \$Bil. | Mil. | Thou. |
| | ess code | - | | | \$Bil. | Mil. | Thou. |
| a | ess code | - | | | \$Bil. | Mil. | Thou. |
| a | ess code | - | | | \$Bil. | Mil. | Thou. |
| a | ess code | - | | | \$Bil. | Mil. | Thou. |
| a | ess code | - | | | \$Bil. | Mil. | Thou. |
| a | Sess code | - | | | \$Bil. | | Thou. |
| a | Sess code | - | | | \$Bil. | | Thou. |
| a | | | | | \$Bil. | | Thou. |

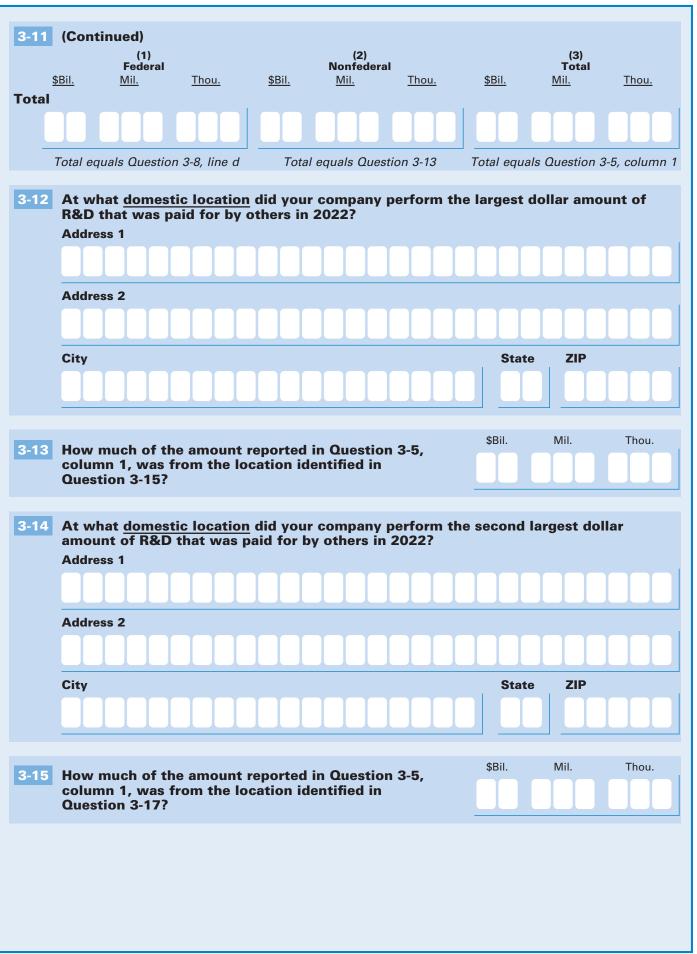
| | If your company is a subcontractor or subgrantee, report the or | iginal sou | rce of fund | ls. |
|----|---|------------|----------------|------------|
| | Example: Company Sub Inc. performs custom software development a subcontractor on a contract with the U.S. Dept. of Defense. Even tho for the defense company, it reports the cost of this development in line was the original source of funds. | ugh Sub Ir | nc. is working | g directly |
| | | \$Bil. | Mil. | Thou. |
| | a. Other companies located <u>inside</u> the United States | | | |
| | b. Your company's foreign parent (if you are owned by a foreign parent) | | | |
| | c. Other companies located <u>outside</u> the United States | | | |
| | d. U.S. federal government agencies or laboratories | | | |
| | e. U.S. state and local government agencies or laboratories | | | |
| | f. Foreign government agencies or laboratories | | | |
| | g. Universities, colleges, and academic researchers (including principal investigators) located <u>inside</u> the United States | | | |
| | h. Universities and colleges located <u>outside</u> the United States | | | |
| | i. All other organizations <u>inside</u> the United States | | | |
| | j. All other organizations <u>outside</u> the United States | | | |
| | k. Total (equals Question 3-5, column 1) | | | |
| 9 | Add Question 3-8, lines a, b, and c, and enter the result here. This is the domestic R&D performed by your company that was paid for by other companies. | \$Bil. | Mil. | Thou. |
| | | | | |
| 10 | Subtract Question 3-8, line d, from Question 3-8, line k, and enter the result here. This is the domestic R&D | \$Bil. | Mil. | Thou. |
| | performed by your company that was paid for by nonfederal sources. | | | |

| (inclu (1) D | ding D.C.): | | | | s performe I governme | | | ion 3-8, | | |
|-------------------|---|--------------|------------|-----------------|--------------------------|---------------|--------------|--------------|--|--|
| (3) T | (2) Domestic R&D paid for by nonfederal sources reported in Question 3-13(3) Total domestic R&D performed by your company that was paid for by others reported in Question 3-5, column 1 | | | | | | | | | |
| | (1) Federal | | | (2) Nonfeder | | 40 | (3) Total | | | |
| \$Bil. Alabama | Mil. | <u>Thou.</u> | \$Bil. | Mil. | <u>Thou.</u> | <u>\$Bil.</u> | Mil. | <u>Thou.</u> | | |
| | | | | | | | | | | |
| Alaska | | | | | | | | | | |
| | | | | | | | | | | |
| Arizona | | | | | | | | | | |
| | | | | | | | | | | |
| Arkansas | | | | | | | | | | |
| | | | | | | | | | | |
| California | | | | | | | | | | |
| | | | | | | | | | | |
| Colorado | | | | | | | | | | |
| | | | | | | | | | | |
| Connecticut | | | | | | | | | | |
| | | | | | | | | | | |
| Delaware | | | | | | | | | | |
| | | | | | | | | | | |
| District of Col | umbia | | | | | | | | | |
| | | | | | | | | | | |
| Florida | | | | | | | | | | |
| | | | | | | | | | | |
| Georgia | | | | | | | | | | |
| | | | | | | | | | | |
| Hawaii | | | | | | | | | | |
| | | | | | | | | | | |
| | | Q | uestion co | ontinues or | next page | | | | | |









| R&D performed by others | | |
|--|----------------|------|
| 3-16 Of the domestic R&D performed by others reported in Question 3-4, column 1, how much was paid for by U.S. federal government agencies or laboratories? | \$Bil. Mil. Th | hou. |
| Projected R&D paid for by others in 2023 | | |
| 3-17 What are your company's projected 2023 costs for R&D that will be paid for by others? | \$Bil. Mil. TI | hou. |
| NOTE: This amount is the 2023 projection for what is reported in Question 3-1, line j. | | |
| 3-18 How much of the projected costs in 2023 for R&D that will be paid for by others reported in Question 3-17 will be performed by your company in the United States? | \$Bil. Mil. Tł | hou. |
| NOTE: This amount is the 2023 projection for what is reported in Question 3-5, column 1. | | |
| 3-19 How much of the projected costs in 2023 for domestic R&D performed by your company reported in Question 3-18 will be paid for by the U.S. federal government? | \$Bil. Mil. Ti | hou. |
| NOTE: This amount is the 2023 projection for what is reported in Question 3-8, line d. | | |
| 3-20 Who was primarily responsible for completing this section ☐ Same person mentioned in Question 1-7 ☐ Another person → Please provide the following informations of the person of | | |
| Telephone Title Area code Number | Extension | 1 |
| | | |
| | | |

| SECTION 3 WORKSHEET Complete if amount reported in Question 3-1, line j is less than \$1 Million | | | Million |
|---|--|--------------|------------|
| 1 | Of the total R&D paid for by others reported in Question 3-1, line is were incurred in the following locations? | j, what cost | t s |
| | a. Domestic United States (50 states and D.C.) | | |
| | b. All other countries (also, Puerto Rico) | | |
| | c. Total | | |
| 2 | How much of the amount reported in Question 1, line a, was for eafollowing types of costs? | ach of the | |
| | a. Salaries, wages, and fringe benefits | | Thou. |
| | f. Total (equals Question 1, line a) | | |
| 3 | Add Question 2, lines a, b, and e, and enter the result here. This is the domestic R&D performed by your company that was paid for by others in 2022. | \$Mil. | Thou. |
| | | | |

| 4 | How much of the amount reported in Question 3, was paid for by following? | each of the | е |
|---|--|----------------|----------|
| | If your company is a subcontractor or subgrantee, report the original so | urce of fund | s. |
| | Example: Company Sub Inc. performs custom software development for a large a subcontractor on a contract with the U.S. Dept. of Defense. Even though Sub I for the defense company, it reports the cost of this development in line d becau was the original source of funds. | nc. is working | directly |
| | | \$Mil. | Thou. |
| | a. Other companies located <u>inside</u> the United States | | |
| | b. Your company's foreign parent (if you are owned by a foreign parent) | | |
| | c. Other companies located <u>outside</u> the United States | | |
| | d. U.S. federal government agencies or laboratories | | |
| | e. U.S. state and local government agencies or laboratories | | |
| | f. Foreign government agencies or laboratories | | |
| | g. Universities, colleges, and academic researchers (including principal investigators) located <u>inside</u> the United States | | |
| | h. Universities and colleges located <u>outside</u> the United States | | |
| | i. All other organizations <u>inside</u> the United States | | |
| | j. All other organizations <u>outside</u> the United States | | |
| | k. Total (equals Question 3) | | |
| 5 | Of the domestic R&D performed by your company that was paid reported in Question 3, how much was for the following categories | | rs |
| | a. Basic research activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses | \$Mil. | Thou. |
| | b. Applied research activities aimed at solving a specific problem or meeting a specific commercial objective | | |
| | c. <u>Development</u> systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes | | |
| | d. Total (equals Question 3) | | |
| | | | |

SECTION 4

Assets

Who should answer this section?

Persons familiar with your company's accounting for capital expenditures and assets and with access to records related to those should complete this section.

What does this section cover?

The purpose of this section is to measure the stock of capital, both tangible and intangible, your company owns and uses in the course of its business and the investments it has made in these assets during 2022. Many of the questions in this section will tie directly to your company's financial statements.

| statements. | | | | | |
|---|---|-----------------|-----------------|-------|--|
| 4-1 | What was the net worldwide value of the following assets owned or leased by your company at the end of 2022, according to your balance sheet? | | | | |
| | Include:Assets classified as discontinued operations | \$Bil. | Mil. | Thou. | |
| | a. Property, plant, and equipment | | | | |
| | b. Goodwill | | | | |
| | c. Identifiable intangible assets | | | | |
| | d. Total | | | | |
| What was your company's accumulated depreciation and amortization for following assets owned or leased by your business at the end of 2022? | | | | 16 | |
| | Tollowing assets owned or leased by your business at the | \$Bil. | Mil. | Thou. | |
| | a. Property, plant, and equipment | | | | |
| | b. Identifiable intangible assets | | | | |
| | c. Total | | | | |
| 4-3 | What was the reduction in value of the following assets decharges, disposals, or retirement in 2022? | ue to <u>im</u> | <u>pairment</u> | | |
| | Include: Assets classified as discontinued operations Assets considered sold under capital lease arrangements | \$Bil. | Mil. | Thou. | |
| | a. Property, plant, and equipment | | | | |
| | b. Goodwill | | | | |
| | c. Identifiable intangible assets | | | | |
| | d. Total | | | | |

| 4-4 | 4-4 What was the book value of the following assets acquired through | | | |
|--------|--|------------|--------------------------|---------------|
| | mergers and acquisitions in 2022? | \$Bil. | Mil. | Thou. |
| | a. Property, plant, and equipment | | | |
| | b. Goodwill | | | |
| | c. Identifiable intangible assets | | | |
| | d. Total | | | |
| 4-5 | What were your company's <u>worldwide expenditures</u> for th assets in 2022? | e followin | g capitali | zed |
| | Include: Estimated cost of new structures and equipment acquired as the lessee under lease arrangements entered into during 2022. Capitalized internal software development costs. Exclude: Assets acquired through mergers and acquisitions reported in Question 4-4. Investment in operating leases (expenditures for fixed assets leased to others). | | | |
| | a. Property, plant, and equipmentb. Identifiable intangible assetsc. Total. | \$Bil. | Mil. | Thou. |
| 4-6 | How much of the expenditures for capitalized assets in Qu | estion 4-5 | i were foi | , |
| | assets that were deployed in the following locations? (1) (2) | | (2) | |
| | (1) (2) Foreign \$Bil. Mil. Thou. \$Bil. Mil. Thou. | \$Bil. | (3) Worldwide Mil. | Thou. |
| a. Pro | operty, plant, and equipment | <u>φ5</u> | <u>.v</u> | <u>11104.</u> |
| | | | | |
| b. Ide | ntifiable intangible assets | | | |
| | | | | |
| c. To | tal | | | |
| | | | | |
| | | | | |

SECTION 4

| 4-7 | Of the amounts reported in Question 4-6, Column 1 (Dome R&D operations? | estic), ho | ow much v | was for |
|-----|---|------------|------------|---------|
| | Include: Expenditures for business operations that research and develop new and improved products for sale by your company. Expenditures for business operations that research and develop new and improved processes and software for use by your company. | | | |
| | Expenditures for business operations that conduct R&D that is paid for by customers, business partners, or other third parties. | | | |
| | Companies should allocate capital expenditures that benefit both R&D operations and other company operations on a reasonable basis. | | | |
| | | \$Bil. | Mil. | Thou. |
| | a. Property, plant, and equipment | | | |
| | b. Identifiable intangible assets | | | |
| | c. Total | | | |
| | | | | |
| 4-8 | How much of the amount reported in Question 4-7, line c, | was for | the follow | vina? |
| | , , , , , , , , , , , , , , , , , , , | \$Bil. | Mil. | Thou. |
| | a. Land acquisition | | | |
| | b. Buildings and land improvement | | | |
| | c. Machinery and equipment | | | |
| | d. Capitalized software | | | |
| | e. Other intellectual property | | | |
| | f. All other capital expenditures for R&D operations | | | |
| | g. Total (equals Question 4-7, line c) | | | |
| 4-9 | Was any of the amount reported in Question 4-7 funded, p for, or reimbursed by others not owned by your company (including a foreign parent)? | | . D Ye | s 🗆 No |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| 4-10 | Who was primarily responsible for completing this section? |
|------|--|
| | ☐ Same person mentioned in Question 1-7 |
| | Same person mentioned in Question 1-7 |
| | Another person → Please provide the following information: |
| 1 | Name |
| | |
| - | |
| | Telephone Title Area code Number Extension |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

SECTION 5

Management and Strategy of R&D

Who should answer this section?

Persons familiar with the technical, managerial, and strategic aspects of your company's R&D should complete this section.

What does this section cover?

This section requests information about the characteristics of the R&D reported in Sections 2 and 3. This section requests information about your company's worldwide consolidated R&D and the R&D your company performs in the domestic United States.

If the amount reported in Question 2-4 was less than \$1 Million, skip to Question 5-11 on page 39.

5-1 What percentage of the total R&D paid for by your company reported in Question 2-4 was directed toward business areas or product lines that are new to your company?

Example: Company A manufactures laptop computers. In 2022, Company A's management decided to attempt to enter the cellular phone market and used a portion of the company's R&D budget to develop cellular phones. Because this was a new line of business in 2022, Company A reports this R&D in this question.



Thou.

Characteristics of domestic R&D paid for and performed by your company

5-2 Copy the amount from Question 2-10, column 1. This is the domestic R&D paid for and performed by your company.

| \$Bil. | Mil. | Thou. |
|--------|------|-------|
| | | |
| | | |

Mil.

5-3 How much of the amount reported in Question 5-2 was for the following categories?

| Research planned, systematic pursuit of new knowledge or understanding | | | | | |
|--|--|--|--|--|--|
| | | | | | |

b. Development systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing

| | Ĭ | | |
|--|---|--|--|
| | | | |
| | | | |
| | | | |

c. **Total** (equals Question 5-2).....

5-4 If you reported any research in Question 5-3, line a, how much of that research was for the following categories?

| | ΨΒ | inou. |
|--|----|-----------|
| Applied research activities aimed at solving a specific problem or meeting a specific commercial objective | | |
| Racic recearch activities aimed at acquiring new | | |

\$Bil.

b. Basic research activities aimed at acquiring new knowledge or understanding without specific immediate

| I | | ľ | | | |
|---|--|---|--|--|--|
| | | | | | |
| | | | | | |

a. Applied research activities aimed

| What percentage of the amount reported in Question 5-2 software products or software embedded in other project What percentage of the amount reported in Question 5-2 biotechnology? For list-based definition see Question by Question Guidan https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-6 Biotechnology The application of science and technology to living of as well as parts, products and models thereof, to alter living or non-living for the production of knowledge, goods and services. What percentage of the amount reported in Question 5-2 nanotechnology? For list-based definition see Question by Question Guid https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-7 Nanotechnology The application of science and technology to organic and inorganic materials, as well as parts, products, and model at the nanometer-scale (but not exclusively below 1000 nanometers). | was for ce at organisms, ing materials was for ance at nisms, | | % |
|---|---|---------|-------|
| biotechnology? For list-based definition see Question by Question Guidan https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-6 Biotechnology The application of science and technology to living of as well as parts, products and models thereof, to alter living or non-living for the production of knowledge, goods and services. What percentage of the amount reported in Question 5-2 manotechnology? For list-based definition see Question by Question Guidanttps://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-7 Nanotechnology The application of science and technology to organic and inorganic materials, as well as parts, products, and model | organisms, ing materials was for ance at nisms, | | % |
| as well as parts, products and models thereof, to alter living or non-liv for the production of knowledge, goods and services. What percentage of the amount reported in Question 5-2 nanotechnology? For list-based definition see Question by Question Guid https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-7 Nanotechnology The application of science and technology to orga organic and inorganic materials, as well as parts, products, and model | was for ance at | | % |
| nanotechnology? For list-based definition see Question by Question Guid https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-7 Nanotechnology The application of science and technology to organic and inorganic materials, as well as parts, products, and model | ance at | | |
| organic and inorganic materials, as well as parts, products, and model | | | |
| | | | % |
| What percentage of the amount reported in Question 5-2 artificial intelligence (AI)? For a detailed definition see Question by Question at https://www.census.gov/programs-surveys/brds/information/brdshell Artificial Intelligence (AI) A branch of computer science and enging to making machines intelligent. Intelligence is that quality that enables perceive, analyze, determine response, and act appropriately in its environment. | uestion p.html#q5-8 eering devote an entity to | ed | % |
| Characteristics of foreign R&D paid for and performe | ed by you | ır comp | any |
| Copy the amount from Question 2-10, column 2. This is the foreign R&D paid for and performed by your company. | \$Bil. | Mil. | Thou. |
| How much of the foreign R&D paid for and performed by your company reported in Question 5-9 was for the following categories? | \$Bil. | Mil. | Thou. |
| a. Research planned, systematic pursuit of new knowledge or understanding | | | |
| b. <u>Development</u> systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes. | | | |
| c. Total (equals Question 5-9) | | | |
| | | | |

| Domes | tic R&D performed by your company that was | paid fo | r by oth | ers |
|--------|---|-------------|-------------|-------------|
| If the | amount reported in Question 3-1, line j was less than \$1 Millio | on, skip to | o Section 6 | on page 42. |
| is | opy the amount from Question 3-5, column 1. This the domestic R&D performed by your company that as paid for by others. | \$Bil. | Mil. | Thou. |
| | ow much of the amount reported in Question 5-11 as for the following categories? | \$Bil. | Mil. | Thou. |
| a. | Research planned, systematic pursuit of new knowledge or understanding | | | |
| b. | <u>Development</u> systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes | | | |
| c. | Total (equals Question 5-11) | | | |
| | you reported any research in Question 5-12, line a, how uch of that research was for the following categories? | \$Bil. | Mil. | Thou. |
| a. | Applied research activities aimed at solving a specific problem or meeting a specific commercial objective | | | |
| b. | Basic research activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses | | | |
| C. | Total (equals Question 5-12, line a) | | | |
| | | | | |

| Technology focus of domestic R&D performed by you that was paid for by others | ır compa | ny | |
|---|--------------------|---------|-------|
| NOTE: You may report the same R&D in multiple areas for Quest | ions 5-14 t | o 5-17. | |
| 5-14 What percentage of the amount reported in Question 5-11 software products or software embedded in other project products? | | | % |
| 5-15 What percentage of the amount reported in Question 5-11 biotechnology? For list-based definition see Question by Question Guidane https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-15 | ce at | | |
| Biotechnology The application of science and technology to living of as well as parts, products and models thereof, to alter living or non-living for the production of knowledge, goods and services. | | | % |
| What percentage of the amount reported in Question 5-11 nanotechnology? For list-based definition see Question by Question Guida https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-16 | ance at | | |
| Nanotechnology The application of science and technology to organic and inorganic materials, as well as parts, products, and models at the nanometer-scale (but not exclusively below 1000 nanometers). | | | % |
| What percentage of the amount reported in Question 5-11 artificial intelligence (AI)? For a detailed definition see Question by Question at https://www.census.gov/programs-surveys/brds/information/brdshelp | uestion | | |
| Artificial Intelligence (AI) A branch of computer science and engine to making machines intelligent. Intelligence is that quality that enables perceive, analyze, determine response, and act appropriately in its environment. | an entity to | d | % |
| Domestic R&D performed by your company that was U.S. federal government | paid for | by the | |
| 5-18 Copy the amount from Question 3-8, line d. This is the domestic R&D performed by your company that was paid for by the U.S. federal government. | \$Bil. | Mil. | Thou. |
| 5-19 How much of the amount reported in Question 5-18 was for the following categories? | \$Bil. | Mil. | Thou. |
| a. Research planned, systematic pursuit of new knowledge or understanding | | | |
| b. <u>Development</u> systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes | | | |
| c. Total (equals Question 5-18) | | | |
| | | | |

| 5-20 If you reported any research in Question 5-19, line a, how much was for the following categories? | \$Bil. | Mil. | Thou. |
|--|--------|----------|---------|
| a. Applied research activities aimed at solving a specific problem or meeting a specific commercial objective | | | |
| b. Basic research activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses | | | |
| c. Total (equals Question 5-19, line a) | | | |
| 5-21 What percentage of the amount reported in Question 5-18 for software products or software embedded in other proor products? | | | % |
| Characteristics of foreign R&D performed by your co for by others | mpany | that was | s paid |
| 5-22 Copy the amount from Question 3-5, column 2. This is the foreign R&D performed by your company and paid for by others. | \$Bil. | Mil. | Thou. |
| 5-23 How much of the amount reported in Question 5-22 was for the following categories? | \$Bil. | Mil. | Thou. |
| Research planned, systematic pursuit of new knowledge or understanding | | | |
| b. <u>Development</u> systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes | | | |
| c. Total (equals Question 5-22) | | | |
| 5-24 Who was primarily responsible for completing this section | n? | | |
| Same person mentioned in Question 1-7 | | | |
| ☐ Another person → Please provide the following inform | ation: | | |
| Name | | | |
| | | | |
| Telephone Title Area code Number | | Ev | tanaian |
| Title Area code Number | | | tension |
| | | | |
| | | | |
| | | | |
| | | | |

SECTION 6

Human Resources

Who should answer this section?

Persons familiar with human resources concepts and with access to records related to your company's employees should complete this section.

What does this section cover?

This section requests information about your company's employees, focusing on those who worked on R&D activities either full-time or part-time. Include employment data for operations or subsidiaries for which your company owned more than 50 percent.

| , , | our company owned more | e than 50 percent. | | |
|-----|---|---------------------------------|---|---------------------------|
| 6-1 | How many employees many were all other en | | -9 were <u>R&D employe</u> | ees and how |
| | Include: Full-and part-time | employees | | |
| | Exclude: Leased or tempora | ary employees and consulta | nts | |
| | R&D employees include: Al as researchers, R&D manage | | | |
| | R&D employees exclude: E personnel, security guards, | | indirect support to R&D, s | such as corporate |
| | | (1) Domestic operations | (2) Foreign operations | (3) Total employees |
| | a. R&D employees | <u>000000</u> | 000000 | 000000 |
| | b. All other employees . | <u>000000</u> | 000000 | 000000 |
| | c. Total employees | <u>000000</u> | | |
| | | | | |
| | | | Total line equals Question | 1-9 |
| 6-2 | How many of the empleach state (including D | oyees reported in Ques | · | |
| 6-2 | each state (including D (1) R&D employees | oyees reported in Ques | stion 6-1, column 1, w (1) R&D employees | |
| 6-2 | each state (including D | oyees reported in Ques .C.)? | stion 6-1, column 1, w | ere employed in |
| 6-2 | each state (including D (1) R&D employees | oyees reported in Ques .C.)? | stion 6-1, column 1, w (1) R&D employees | ere employed in |
| 6-2 | each state (including D (1) R&D employees Alabama | oyees reported in Ques .C.)? | (1) R&D employees California | ere employed in |
| 6-2 | each state (including D (1) R&D employees Alabama | oyees reported in Ques .C.)? | (1) R&D employees California | ere employed in |
| 6-2 | each state (including D (1) R&D employees Alabama Alaska | oyees reported in Ques .C.)? | (1) R&D employees California Colorado | ere employed in |
| 6-2 | each state (including D (1) R&D employees Alabama Alaska | oyees reported in Ques .C.)? | (1) R&D employees California Colorado | ere employed in |
| 6-2 | each state (including D (1) R&D employees Alabama Alaska Arizona | oyees reported in Ques .C.)? | (1) R&D employees California Colorado Connecticut | ere employed in |

| (Continued) (1) R&D employees District of Columbia | (2) Total employees | (1) R&D employees Michigan | (2) Total employees |
|--|------------------------|----------------------------------|------------------------|
| | | | |
| Florida | | Minnesota | |
| | | | |
| Georgia | | Mississippi | |
| | | | |
| Hawaii | | Missouri | |
| | | | |
| ldaho | | Montana | |
| | | | |
| Illinois | | Nebraska | |
| | | | |
| Indiana | | Nevada | |
| lowa | | New Hampshire | |
| lowa | | New Hampshire | |
| Kansas | | New Jersey | |
| | | | |
| Kentucky | | New Mexico | |
| | | | |
| Louisiana | | New York | |
| | | | |
| Maine | | North Carolina | |
| | | | |
| Maryland | | North Dakota | |
| | | | |
| Massachusetts | | Ohio | |
| | | | |
| | Question continues on | next page | |

| (Continued) | 40) | 400 | (2) |
|--|--|---|--------------------------------------|
| (1) R&D employees | (2) Total employees | (1) R&D employees | (2) Total employees |
| Oklahoma | | Utah | |
| | | | |
| Oregon | | Vermont | |
| | | | |
| Pennsylvania | | Virginia | |
| | | | |
| | | | |
| Rhode Island | | Washington | |
| | | | |
| South Carolina | | West Virginia | |
| | | | |
| South Dakota | | Wisconsin | |
| | | | |
| Tennessee | | Wyoming | |
| | | | |
| Texas | | Total | |
| | | | |
| 000000 | | | |
| How many of the en | ding Puerto Rico)? | uestion 6-1, column 2, we | |
| How many of the en | nployees reported in Q ding Puerto Rico)? (2) Total employees | uestion 6-1, column 2, we (1) R&D employees | ere employed in (2) Total employees |
| How many of the eneach location (inclu | ding Puerto Rico)? (2) | (1) | (2) |
| How many of the eneach location (incluant) (1) R&D employees | ding Puerto Rico)? (2) | (1) R&D employees | (2) |
| How many of the eneach location (incluant) (1) R&D employees | ding Puerto Rico)? (2) | (1) R&D employees | (2) |
| How many of the eneach location (incluent) R&D employees Canada | ding Puerto Rico)? | (1) R&D employees Czech Rep | (2) |
| How many of the eneach location (incluent) R&D employees Canada Puerto Rico | ding Puerto Rico)? | (1) R&D employees Czech Rep | (2) |
| How many of the eneach location (inclu- (1) R&D employees Canada Puerto Rico Europe | ding Puerto Rico)? | Czech Rep Denmark | (2) |
| How many of the eneach location (incluent) R&D employees Canada Puerto Rico | ding Puerto Rico)? | Czech Rep Denmark Finland | (2) |
| How many of the eneach location (incluent) R&D employees Canada Puerto Rico Europe Austria | ding Puerto Rico)? | Czech Rep Denmark | (2) |
| How many of the eneach location (incluant) R&D employees Canada Puerto Rico Europe | ding Puerto Rico)? | Czech Rep Denmark Finland | (2) |

| (Continued) (1) R&D employees | (2) Total employees | (1) R&D employees | (2) Total employe |
|-------------------------------------|------------------------|-----------------------|----------------------|
| Germany | | United Kingdom | |
| | | | |
| Hungary | | Other Europe | |
| | | | |
| Ireland | | Latin America/Other W | estern Hemisphe |
| | | Argentina | |
| Italy | | | |
| | | Brazil | |
| Luxembourg | | | |
| | | Chile | |
| Netherlands | | | |
| | | Mexico | |
| Norway | | | |
| | | Other Latin America/O | WH |
| Poland | | | |
| | | | |
| | | Asia and Pacific | |
| Russia | | Australia | |
| | | | |
| Spain | | China | |
| | | | |
| Sweden | | Hong Kong | |
| | | | |
| Switzerland | | | |
| | | India | |
| | | | |
| Turkey | | Indonesia | |
| | | | |
| | | | |
| | | | |

| Japan Middle East Israel Malaysia Other Middle East New Zealand Africa South Africa South Africa Taiwan Total Thailand Other Asia/Pacific How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) (2) (3) | (Continued) (1) R&D employees | (2) Total employees | (1) R&D employees | (2) Total employees |
|---|-------------------------------------|---|-----------------------------|------------------------|
| New Zealand Africa Singapore South Africa South Korea Other Africa Taiwan Total Thailand Other Asia/Pacific Other Asia/Pacific Thomastic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | | rotai empioyees | | rotai employees |
| Malaysia Other Middle East New Zealand Africa South Africa Other Africa Taiwan Total Thailand Other Asia/Pacific Other Asia/Pacific Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees Other Middle East Other Middle East Other Africa Other Africa Other Africa Other Africa Total Total Total Other Africa Total Total Total Other Africa Total Total Other Africa Total Total Other Africa Total Total Other Africa Total | | | | |
| New Zealand Africa Singapore South Africa South Korea Other Africa Taiwan Total Thailand Other Asia/Pacific Other Asia/Pacific Other Asia/Pacific Thomas of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | Malauria | | | |
| New Zealand Africa Singapore South Africa Other Africa Taiwan Total Thailand Other Asia/Pacific How many of the R&D employees reported in employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees C. Total R&D employees | Ivialaysia | | | |
| Africa Singapore South Africa Cother Africa Taiwan Total Thailand Other Asia/Pacific Thomas and male employees reported in employees and male employees? Domestic Operations a. Female R&D employees b. Male R&D employees C. Total R&D employees South Africa South Africa Cother Africa Other Africa Other Africa Other Africa Total Total Total (2) Foreign Operations Total R&D employees Domestic Operations Total R&D employees C. Total R&D employees | | | Other Middle East | |
| South Africa Count Korea Other Africa Taiwan Total Thailand Other Asia/Pacific Other Asia/Pacific Count Male R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | New Zealand | | | |
| South Korea Other Africa Taiwan Thailand Other Asia/Pacific Other Asia/Pacific Other Asia/Pacific Demployees How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (2) Foreign Operations Total R&D employees b. Male R&D employees c. Total R&D employees | | | Africa | |
| Taiwan Thailand Other Asia/Pacific How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (2) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | Singapore | | South Africa | |
| Taiwan Thailand Other Asia/Pacific How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | | | | |
| Thailand Other Asia/Pacific Demployees How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | South Korea | | Other Africa | |
| Thailand Other Asia/Pacific Demployees How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | | | | |
| Other Asia/Pacific Demployees How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | Taiwan | | Total | |
| Other Asia/Pacific Demployees How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | | | | |
| How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | Thailand | | | |
| How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | | | | |
| How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | Other Asia/Pacific | | | |
| How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | | | | |
| How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | | | | |
| employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | D employees | | | |
| employees and male employees? (1) Domestic Operations a. Female R&D employees b. Male R&D employees c. Total R&D employees | Have many of the DO | D ampleyees veneral in | Overtion 6.1 lines | ava famala |
| a. Female R&D employees b. Male R&D employees c. Total R&D employees | employees and male | employees? | | |
| b. Male R&D employees | | Domestic Operations | (2) Foreign Operations | Total R&D employees |
| b. Male R&D employees | a Female R&D employ | /ees | | |
| c. Total R&D employees | ar remaie nas emple, | | | |
| | b. Male R&D employee | es | | |
| Total line equals Question 6-1, line a | c. Total R&D employ | ees CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC | | |
| | | Tota | l line equals Question 6-1, | line a |
| | | | | |
| | | | | |
| | | | | |

| a. | cupations listed below? | | | worked in the |
|----------|---|--|--|---------------------------|
| | Researchers (including R&D scientists, engineers, and their managers) | (1) Domestic Operations | (2) Foreign Operations | (3) Total R&D employee |
| | R&D technicians and equivalent staff | 000000 | | |
| | R&D support staff (clerical and other) | | | |
| d. | Total R&D employees | | | |
| | | Total | line equals Question 6-1, | line a |
| -6 Ho | ow many of the researcl | hers reported in Ques | stion 6-5. line a. had | the following |
| | <u>vel of education</u> ? | (1) Domestic Operations | (2) Foreign Operations | (3) Total |
| Phi | D (excluding MD, | | | |
| שני | , and EdD) | | | |
| wa em | the domestic R&D emp as the number of full-tin aployees, other full-time aployees? | ne equivalents (FTEs) | for R&D activity for | full-time R&D |
| | | | | Name Is a se |
| | FTEs for full-time R&D en | • | ork only on R&D | Number |
| | | time employees who w | | Number |
| | Count the number of full- Example: 50 full-time R&D employees | time employees who w | 0 FTEs | Number |
| b. | Count the number of full- Example: | time employees who we worked only on R&D = 5 mployees not working set they work on R&D to detect the set of th | o FTEs solely on R&D calculate the | Number |
| b. | Count the number of full- Example: 50 full-time R&D employees FTEs for other full-time ends the share of the time | time employees who we worked only on R&D = 5 mployees not working sethey work on R&D to contact the set of the | solely on R&D calculate the | Number |
| b. | Example: 50 full-time R&D employees FTEs for other full-time end of the time number of FTEs | time employees who we sworked only on R&D = 5 mployees not working set they work on R&D to contaged one-fourth of their to the week (such as 40 house time week (such as 40 house week (such as 40 house) were such as 40 house week (such as 40 house) who were such as 40 ho | solely on R&D calculate the | Number |
| b. c. | Example: 50 full-time R&D employees FTEs for other full-time end Use the share of the time number of FTEs Example: 60 full-time employees aven FTEs for part-time employ Use the share of a full-time | time employees who we sworked only on R&D = 5 mployees not working set they work on R&D to contain the state of their to the sworking on R&D one week (such as 40 house test). | solely on R&D calculate the | |
| b. | Count the number of full- Example: 50 full-time R&D employees FTEs for other full-time end Use the share of the time number of FTEs Example: 60 full-time employees aven FTEs for part-time employ Use the share of a full-time on R&D to calculate the F Example: | time employees who we worked only on R&D = 5 mployees not working so they work on R&D to contain the second one-fourth of their to the second one week (such as 40 howone teaged 20 hours a week or the second of the second one week or the second of the second of the second one week (such as 40 howone teaged 20 hours a week or the second of the second o | solely on R&D calculate the ime on R&D = 15 FTEs urs) that they work n R&D activities = 10 FTEs | |

| 6-8 | the numb | er of full-time e s, other full-tim | ers reported in Quest quivalents (FTEs) for l e employees not worl | R&D activity for | full-time R&D kD, and part-time |
|------|---------------------------|--|--|--------------------------|---|
| | | r full-time researc he number of full | hers -time employees who w | ork only on R&D | Number |
| | Examp 50 full-t | | worked only on R&D = 50 | FTEs | |
| | Use the | share of the time | esearchers not working to they work on R&D to c | alculate the | |
| | Examp 60 full-t | | aged one-fourth of their tir | me on R&D = 15 FTE | S |
| | Use the | share of a full-tir | chers working on R&D ne week (such as 40 hou TEs | | |
| | Examp 20 part- | | eraged 20 hours a week or | n R&D activities = 10 | FTEs |
| | d. Total F | TEs | | | estion 6-5, line a, column 1. |
| 6-9 | | U.S. citizens en | ic researchers reportently in the United | | |
| | Researche | ers employed und | er a temporary visa | | |
| 6-10 | leased en | | nployees reported in (nporary staff, including below? | | |
| | R&D sc engine | chers (including ientists, ers, and their ers) | (1) Domestic Operations | (2) Foreign Operation | Total leased and temporary employees working on R&D |
| | | chnicians and ent staff | | | |
| | | pport staff and other) | | | |
| | tempo | eased and rary employees g on R&D | | | |

| 6-11 | Who was primarily responsible for c | completing this section? | | | | | |
|------|-------------------------------------|--------------------------------------|--|--|--|--|--|
| | ☐ Same person mentioned in Question | | | | | | |
| | ☐ Another person → Please provide | le the following information: | | | | | |
| | Name | | | | | | |
| | | | | | | | |
| | Title | Telephone Area code Number Extension | | | | | |
| | | Alea code Nulliber Extension | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

SECTION 7

Intellectual Property and Technology Transfer

Who should answer this section?

Persons with an understanding of your company's general business strategy and knowledge of its patenting, licensing, and other activities related to intellectual property should complete this section.

What does this section cover?

This section requests information about your company's worldwide intellectual property and technology transfer activities such as: patents, patent licensing, protection of intellectual property, and transfer of intellectual property.

Are responses to this survey confidential?

Yes. Your responses are completely confidential under Title 13, United States Code, Section 9, and can only be used to produce statistics. The Census Bureau is not permitted to publicly release your responses in a way that could identify your business. The law also provides that copies of reports retained in your files are immune from legal process. In addition, reported data are exempt from requests made under the Freedom of Information Act.

Total patents and utility patents

| 7-1 | How many total patents did your company <u>apply</u> for in 2022 from the U.S. Patent and Trademark Office (USPTO)? | Number |
|-----|--|--------|
| | | |
| 7-2 | Of the patent applications reported in Question 7-1, what was the number of <u>nonprovisional utility patent</u> applications? | Number |
| | | |
| 7-3 | What percentage of the <u>nonprovisional utility patent</u> applications reported in Question 7-2 has your company applied for or plans to apply for in foreign jurisdictions? | % |
| | | |
| 7-4 | What percentage of the <u>nonprovisional utility patent</u> applications reported in Question 7-2 was for inventions that originated within your company's organized R&D activities? | % |
| | | |
| 7-5 | What percentage of your company's inventions <u>considered</u> for patenting in 2022 resulted in nonprovisional utility patent applications? | % |
| | | |
| 7-6 | How many <u>utility patents</u> were <u>issued</u> to your company in 2022 by the USPTO? | Number |
| | | |

| Utility patent sales and licensing to others | | | | | |
|---|--------|------|-----|-------|----|
| 7-7 How much revenue did your company receive in 2022 from the sale of utility patents? | \$Bil. | Mil. | | Thou. | |
| 7-8 How much revenue did your company receive in 2022 from utility patent licensing? | \$Bil. | Mil. | | Thou. | |
| 7-9 Was any of the revenue reported in Questions 7-7 or 7-8 received from companies or organizations located outside the United States? | | | Yes | | No |
| Utility patent purchases and licensing from others | | | | | |
| 7-10 How much did your company pay others in 2022 to purchase utility patents? | \$Bil. | Mil. | | Thou. | |
| 7-11 How much did your company pay others in 2022 to license utility patents? | \$Bil. | Mil. | | Thou. | |
| 7-12 Were any of the payments reported in Questions 7-10 or 7-11 made to companies or organizations located outside the United States? | | | Yes | | No |
| 7-13 Did your company perform the following activities in 2022 | ? | | | | |
| Transferred intellectual property (IP) to others not owned by you company through participation in technical assistance or "know how" agreements | | | Yes | | No |
| Received IP from others not owned by your company through participation in technical assistance or "know how" agreement | | | Yes | | No |
| c. Transferred IP to a spin-off or spin-out of your company | | | Yes | | No |
| d. Received IP from a parent company as part of a spin-off or spi | | | Yes | | No |
| e. Acquired more than 50% ownership in another company for the primary purpose of acquiring their IP | | | Yes | | No |
| f. Acquired any financial interest in another company in order to gain access to their IP | | | Yes | | No |
| g. Participated in cross-licensing agreements — the agreements is which two or more parties grant a license to each other for the use of thesubject matter claimed in one or more of the patents owned by each party. | e 3 | | Yes | | No |
| h. Allowed free use of patents or other IP owned by your compa- (for example, open source software) | ny | | Yes | | No |
| i. Made use of open source patents or other freely available IP nowned by your company | ot | | Yes | | No |
| | | | | | |

| following types of intellectual property protection? a. Utility patents (patents for invention) | Intellectual property pro | tection | | | | | |
|--|-----------------------------|-----------------|-------------|--------------|------|--------|------------------|
| following types of intellectual property protection? a. Utility patents (patents for invention) | | | company v | vere the | | | |
| b. Design patents (patents for appearance) | | | | | | | Not important |
| c. Trademarks | a. Utility patents (patents | for invention) | | | | | |
| d. Copyrights | | | | | | | |
| e. Trade secrets | | | | | | | |
| f. Mask works (copyright protection for semiconductor products) | | | | | | | |
| Who was primarily responsible for completing this section? Same person mentioned in Question 1-7 Another person → Please provide the following information: Name Telephone | | | | | | | |
| □ Same person mentioned in Question 1-7 □ Another person → Please provide the following information: Name Telephone | t. Mask works (copyright | protection for | semiconduct | or products) | | Ш | |
| □ Another person → Please provide the following information: Name Telephone | 7-15 Who was primarily resp | onsible for co | ompleting t | his section? | | | |
| Name Telephone | Same person mention | oned in Questio | on 1-7 | | | | |
| Telephone | ☐ Another person → P | lease provide | the followi | ng informa | ion: | | |
| | Name | | | | | | |
| | | | | | | | |
| Title Area code Number Extension | | | Telephone | | | | |
| | Title | | Area code | Number | | Extens | sion |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

SECTION 8 Tax Topics Who should answer this section? Persons familiar with your company's tax filings. What does this section cover? This section requests information about state and federal tax credits for which your company may have filed. Are responses to this survey confidential? Yes. Your responses are completely confidential under Title 13, United States Code, Section 9, and can only be used to produce statistics. The Census Bureau is not permitted to publicly release your responses in a way that could identify your business. The law also provides that copies of reports retained in your files are immune from legal process. In addition, reported data are exempt from requests made under the Freedom of Information Act. Did your company file for the tax credit for increasing Yes No research activities (IRS Form 6765) in 2022?..... Did your company file for any U.S. state tax credit for Yes No research activities in 2022? Was your company charged for R&D performed by foreign Yes No subsidiaries in 2022 as part of any cost sharing arrangement? Did your company charge foreign subsidiaries for R&D your 8-4 company performed in 2022 as part of any cost sharing Yes No arrangement? 8-5 Who was primarily responsible for completing this section? Same person mentioned in Question 1-7 Another person → Please provide the following information: Name Telephone Title Area code Number Extension

| Γ | • | | |
|----------------|--|----------------|---|
| | ness codes | | imer Goods |
| | in Sections 1, 2, and 3) | 33333 | |
| Aeros | pace and Defense | 33430 31210 | |
| | Aircraft engine and engine parts manufacturing | 33200 | |
| | Aircraft manufacturing | 31100 | |
| 33644 | Guided missiles, space vehicles, and parts manufacturing | 33700 | |
| 33692 | | 32300 | 3 |
| 00002 | components manufacturing | 32591 | |
| 33452 | | 31990 | preparations manufacturing Textile, apparel, and leather products |
| | aeronautical, and nautical system and | 31990 | manufacturing |
| | instruments manufacturing | 31220 | |
| 33660 33643 | Ship and boat building | 33990 | Miscellaneous manufacturing not listed |
| 33043 | Other aircraft parts and auxiliary equipment manufacturing | | elsewhere (games, office supplies, slot machines, etc.) |
| Auton | nobiles, Motorcycles, and Components | | Siot machines, etc./ |
| | | Enera | y and Mining |
| 33620 33630 | Motor vehicle body and trailer manufacturing Motor vehicle parts manufacturing | _ | Engine, turbine, and power transmission |
| 33610 | Motor vehicles manufacturing | 00000 | equipment manufacturing |
| 33691 | Motorcycle, bicycle, and parts manufacturing | 21200 | |
| 33651 | Railroad rolling stock manufacturing | 33319 | |
| 33660 | Ship and boat building | | equipment manufacturing |
| 33699 | All other transportation equipment | 21100 | 0 |
| | manufacturing | 32401 21300 | |
| Capita | al Equipment | 21300 | including oil and gas |
| 33311 | Agricultural machinery and equipment manufacturing | Finan | ce, Insurance, and Real Estate |
| 33332 | | | Finance: banking and credit intermediation |
| | control, and airflow control machinery | 52400 | |
| | manufacturing | 53100 | |
| 33312 | | 52310 | Securities, commodity contracts, and other |
| 33500 | Electrical equipment, appliances, and components manufacturing | | financial investments and related activities |
| 33360 | | | (including funds and trusts) |
| | equipment manufacturing | Health | ncare |
| 33322 | Industrial machinery manufacturing, except | 32543 | |
| | semiconductor machinery | 32343 | biological products (except diagnostics) |
| 33390 | Metalworking and other general purpose | 33451 | Electromedical, electrotherapeutic, and |
| 33319 | machinery manufacturing Mining, oil, and gas field machinery and | | irradiation apparatus manufacturing |
| 33313 | equipment manufacturing | 62200 | |
| 33331 | Photographic and photocopying equipment | 1 | In vitro diagnostic substances manufacturing |
| | manufacturing | 62150 33910 | 0 |
| Chem | icals and Materials | 62110 | |
| | | 32541 | Pharmaceutical, medicinal, and botanical |
| 32402 | Asphalt paving, roofing, and saturated materials manufacturing | | products manufacturing |
| 32510 | Basic chemicals manufacturing | 54173 | • |
| 32790 | Cement, concrete, lime, gypsum, and other | F 44 | in biotechnology (except nanotechnology) |
| | nonmetallic mineral product manufacturing | 54175 | Research and development services in |
| 32710 | Clay and glass products manufacturing | 54174 | nanotechnology Research and development services |
| 21200 | Mining Reint adhering and other chamical | 34174 | in physical, engineering, and life sciences |
| 32592 | Paint, adhesive, and other chemical manufacturing | | (except nanotechnology and biotechnology) |
| 32200 | Paper manufacturing | 62199 | Other ambulatory health care services |
| 32530 | Pesticide, fertilizer, and other agricultural | | (ambulance, dental, home health care) |
| | chemical manufacturing | | |
| 32600 | Plastics and rubber products manufacturing | | |
| 33100 | Primary metal manufacturing | | |
| 32520 | Resin, synthetic rubber, and artificial | | |
| 32591 | synthetic fibers and filaments manufacturing Soap, cleaning compound, and toilet | | |
| 32331 | preparations manufacturing | | |
| 32100 | Wood products manufacturing | | |
| 32403 | Other petroleum and coal products | | |
| | manufacturing, including motor oil, | | |
| | hydraulic fluid, and charcoal | | |
| I | | 1 | , |

| Inforn | nation Technology - Goods and Services | Other | Services |
|--------|--|-------|--|
| 33333 | Digital cameras manufacturing | 72000 | Accommodation and food services |
| 51801 | Cloud computing applications and internet | 56100 | Administrative and support services |
| | based software services | 71000 | Arts, entertainment, and recreation |
| 54150 | Computer systems design and related services | 23000 | Construction |
| 33412 | Computers and peripheral equipment | 49200 | Couriers, messengers, and express delivery |
| | manufacturing, including magnetic and | | services |
| | optical media | 53300 | Lessors of nonfinancial intangible assets |
| 51800 | Data processing, hosting, and related services | | (including patent licensing) |
| 33500 | Electrical equipment, appliances, and | 55100 | Management of companies and enterprises |
| | components manufacturing | 42300 | |
| 45411 | Electronic shopping and mail-order houses | 42400 | Merchant wholesalers, nondurable goods |
| 33459 | Measuring and control instruments | 51200 | Motion picture and sound recording |
| | manufacturing (not listed elsewhere) | | (except Internet) |
| 33422 | Radio, television, and wireless | 51110 | Newspaper, periodical, book, and |
| | communication equipment manufacturing | | directory publishers (except Internet) |
| 33440 | Semiconductor and other electronic | 53200 | o o |
| | components manufacturing | 44000 | Retail trade, except electronic shopping |
| 33321 | Semiconductor machinery manufacturing | | and mail-order houses |
| 51120 | Software publishers (except Internet) | 62400 | |
| 33421 | Telephone apparatus manufacturing | 21300 | |
| | including routers, modems, and gateways | | including oil and gas |
| 42500 | | 48000 | |
| | agents and brokers (business to business) | 49300 | |
| 33429 | Other communication equipment | 81000 | Other services (not listed elsewhere) |
| | manufacturing (except radio, television, | | |
| =4040 | and wireless communication equipment) | | |
| 51910 | | | |
| | Internet publishing, broadcasting, | | |
| | and web search portals | | |
| Profes | ssional, Scientific, and Technical Services | | |
| 54180 | Advertising and related services | | |
| | Architectural, engineering, and related services | | |
| 54150 | Computer systems design and related services | | |
| 54111 | Legal, accounting, tax preparation, | | |
| | bookkeeping and payroll services | | |
| 54160 | | | |
| | technical consulting services | | |
| 54190 | Professional, scientific, and technical services | | |
| | (not listed elsewhere) | | |
| 54173 | Research and development services in | | |
| | biotechnology (except nanotechnology) | | |
| 54175 | Research and development services in | | |
| | nanotechnology | | |
| 54174 | Research and development services in | | |
| | physical, engineering, and life sciences | | |
| | (except nanotechnology and biotechnology) | | |
| 54172 | | | |
| | social sciences and humanities | | |
| 54140 | | | |
| Teleco | ommunications and Utilities | | |
| | | | |
| | Broadcasting (except Internet) | | |
| 51740 | Satellite telecommunications | | |
| 77100 | LITHITIAS | 1 | |

22100

56200

51710

51720

Utilities

(except satellite)

Waste management and remediation services

Wired telecommunications carriers

Wireless telecommunications carriers

51790 Other telecommunications (not listed elsewhere)

| | Hours | Minutes |
|--|---|-------------|
| Approximately how long did it take to complete this survey? | | : |
| | | |
| Remarks (Please use this space below for any explanations that may be essential in ur reported data.) | derstandin | g your |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Thank You – Your Response is Important | | |
| Accurate and timely statistical information could not be produced without your contained goodwill. Thank you. | inued coo | peration |
| We estimate this survey will take between 15 minutes and 18 hours, with an average of minutes to complete, including the time for reviewing instructions, searching existing depathering and maintaining the data needed, and completing and reviewing the collection you may email comments regarding this burden estimate or any other aspect of this conformation, including suggestions for reducing this burden, to erd.survey.comments@couse "ERD Survey Comments 0607-0912" as the subject. | ata sources n of inform llection of | , ation. |