



U.S. DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. CENSUS BUREAU

FORM  
**BRDI-1** (02-08-2017)

## 2016 BUSINESS R&D AND INNOVATION SURVEY

### DUE DATE:

#### Report electronically:

<https://econhelp.census.gov/brdis>

User ID:

Password:

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U.S. CENSUS BUREAU  
1201 East 10th Street  
Jeffersonville, IN  
47132-0001

#### For information or assistance:

- <https://econhelp.census.gov/brdis>
- Call 1-800-772-7851, option "5" (8 a.m.–4:45 p.m. EST, M-F)

*(Please correct any errors in this mailing address)*

**YOUR RESPONSE IS REQUIRED BY LAW.** The survey is conducted under the authority of 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). Title 13, United States Code, Sections 224 and 225 require your response. The U.S. Census Bureau is required by Section 9 of the same law 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 of this page. Without this approval, we could not conduct this survey.

We estimate this survey will take 15 hours, on average, to complete. On the back of this form you will find the full burden estimate statement.

**YOUR RESPONSE IS IMPORTANT.** Better information about R&D and innovation in the U.S. business sector will help leaders make better decisions to strengthen American competitiveness.

The Business R&D and Innovation Survey is a national survey that collects critical information about research and development (R&D) and innovation at businesses operating in the U.S. Policy makers and data users in industry and academia make use of this information for short- and long-term planning.

**THANK YOU.** Accurate and timely statistical information could not be produced without your continued cooperation and goodwill. Thank you.

~ This survey is jointly conducted by the U.S. Census Bureau and the National Science Foundation ~



# Table of Contents

## Survey Overview and Table of Contents

The survey is divided into six sections. Each section asks questions about different aspects of R&D or innovation at your company. Due to the specialized nature of each section, it may be necessary to collaborate with colleagues in different departments to answer the questions. The sections are color coded and cover the following topical areas:

### Section 1: Company Information . . . . . p.4

**Topics:** company ownership, business(es), revenues, and innovation  
**Requires:** knowledge of the company's sales and revenues

### Section 2: Financial Schedule A . . . . . p.10

**Topics:** R&D expenses and capital expenditures for R&D  
**Requires:** knowledge of your company's accounting concepts and access to financial records

### Section 3: Financial Schedule B . . . . . p.21

**Topics:** costs for work that was funded, paid for, or reimbursed by others  
**Requires:** knowledge of your company's financial records related to R&D activities

### Section 4: Management and Strategy of R&D . . . . . p.35

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

### Section 5: Human Resources . . . . . p.40

**Topics:** your company's employees, focusing on those who work on R&D activities  
**Requires:** familiarity with human resources (HR) concepts and access to HR records

### Section 6: Intellectual Property and Technology Transfer . . . . . p.44

**Topics:** intellectual property and technology transfer  
**Requires:** knowledge of your company's general business strategy, patenting, and licensing

## Changes from the 2015 survey

On the basis of extensive conversations with many of the 2015 survey respondents, the 2016 survey has been improved. Sections and questions have been modified to make the concepts presented easier to understand. For a list of specific changes, go to <https://econhelp.census.gov/brdis>.

## Filing electronically

You may submit your survey online via a secure website. Online submission allows you to save the data on secure Census Bureau servers as you go, so you can save, exit, and resume later without losing any of your data. It also allows you to save a paper or electronic copy of your completed survey. To submit online, follow the instructions at <https://econhelp.census.gov/brdis>.

## Electronic materials

Electronic versions of the questionnaire and related documents are available to print or share with others in your company via e-mail. They can be found at <https://econhelp.census.gov/brdis>.

### You can:

- Print and download copies of the questionnaire in PDF format
- Download Excel worksheets for each section
- Get question-by-question instructions, definitions, and examples that provide clarification
- Get answers to frequently asked questions, including how the data will be used



## 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 associated with 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 subsidiaries and divisions regardless of location. Include only subsidiary companies where there is more than 50 percent ownership. If you are owned by a foreign parent, the reporting unit for the survey is your U.S.-located company, including all your majority-owned subsidiaries and divisions 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 2016, if possible, or for your company's fiscal year ending between April 2016 and March 2017.

## Estimates are acceptable

Please report all items to the best of your ability.

## To speak with a survey specialist, call 1-800-772-7851, option '1' for English, then option '5'.

Survey specialists are available 8 a.m. to 4:45 p.m. EST, M-F to help with any questions you may have.



## SECTION 1 Company Information

**1-1 Was your company a majority-owned subsidiary of a foreign company in 2016?**

Yes → **Please provide the following information and then skip to Question 1-3:**

Name of parent company

**REPORTING INSTRUCTIONS FOR FOREIGN-OWNED COMPANIES:**

If you are owned by a foreign parent, the reporting unit for the survey is your U.S.-located company, including all your majority-owned subsidiaries and divisions 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.

If you pay your foreign parent for R&D services, those costs should be included in your responses in Section 2 as "costs for purchased R&D services."

If your foreign parent pays or reimburses your company for R&D services, the costs for this R&D should be included in your responses in Section 3 as "costs funded, paid for, or reimbursed by others."

Report your survey data using U.S. generally accepted accounting principles (U.S. GAAP) as recognized by the Financial Accounting Standard Board (FASB). If your company follows International Financial Reporting Standards (IFRS), we request that you estimate any adjustments that would be required to conform to U.S. GAAP.

No

**1-2 Did another U.S. company other than a holding company own more than 50 percent of the voting interest in your company during 2016?**

Yes → **Please provide the following information:**

Name of parent company

EIN of owner (9 digits)

Date parent  
company purchased  
your company

(MM)

(DD)

(YYYY)







**REPORTING INSTRUCTIONS FOR U.S.-OWNED COMPANIES:**

If your company was purchased between April 1, 2016 and December 31, 2016, report only for the period January 1, 2016 to the date of purchase. If your company was purchased before April 1, 2016, complete Question 1-6 and return this form to the Census Bureau – you are not required to complete the rest of this survey unless your owner instructs you to complete this survey.

No



**1-3 Did your company own more than 50 percent of any company operations or subsidiaries outside the 50 United States and D.C. during 2016?**

- Yes → **Include data for these operations/subsidiaries in your survey responses**
- No

**1-4 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 between April 1, 2016 and December 31, 2016, report only for the period January 1, 2016 to the date your company ceased operations. If your company ceased operations before April 1, 2016, complete Question 1-6 and return this form to the Census Bureau – you are not required to complete the rest of this survey.

- No

**1-5 Did your company have discontinued operations in 2016?**

- Yes → **Include data for these operations in your survey responses**
- No

**1-6 Who is the survey coordinator?**

The survey coordinator is the person at your company responsible for gathering all requested information, ensuring instructions are followed, and submitting the completed survey. The survey coordinator may not be able to personally complete the entire survey and may need to request information from other knowledgeable resources concerning your company's R&D, accounting, human resources, and legal matters.

Name

Title

Telephone

Area code

Number

Extension

E-mail address



**Business Codes**

**1-7 Do the business code(s) listed below reflect all applicable codes from the list on pages 46-47 in which your company operated worldwide during 2016?**

**NOTE:** These codes will be used to describe both business activities and R&D activities and may differ from industry codes used by other government surveys and reports.

**If no business codes are printed below, please write in the codes from pages 46-47 that apply to your company.**

Yes → **Continue with Question 1-8**

No → **Draw a line through codes that are incorrect. As needed, enter additional codes and descriptions from pages 46-47 in the spaces provided.**

Business code (see pages 46-47)	Description



**1-8 What was the amount of your company's worldwide sales and revenues during 2016?**

**Include:**

- Sales and operating revenues from discontinued operations

\$Bil.	Mil.	Thou.
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**1-9 How much of the amount reported in Question 1-8 was attributable to or originated from domestic operations?**

**Include:**

- Sales and operating revenues to foreign customers, including foreign subsidiaries

**Example:** U.S. Manufacturing Corporation sells parts to customers around the world. However, because all its operations are located inside the United States it reports 100% of its sales in this question.

\$Bil.	Mil.	Thou.
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**1-10 How much of the 2016 sales and operating revenue amounts was for each business code listed or amended in Question 1-7:**

- (1) Worldwide sales and operating revenues reported in Question 1-8  
 (2) Domestic sales and operating revenues reported in Question 1-9

	Business code (see page 6)	(1) Worldwide sales and operating revenues			(2) Domestic sales and operating revenues		
		\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
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i.	Less eliminations – the sales and revenues that are eliminated in order to consolidate the business codes. . . .	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
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Total equals Question 1-8

Total equals Question 1-9



**Product (good or service) innovation**

A product innovation is the market introduction of a **new** or **significantly** improved good or service with respect to its capabilities, user friendliness, components, or sub-systems.

- Product innovations (new or improved) must be new to your company, but they do not need to be new to your market.
- Product innovations could have been originally developed by your company or by other companies.

**1-11 During the three years 2014 to 2016, did your company introduce:**

- a. New or significantly improved goods (Exclude the simple resale of new goods purchased from other companies and changes of a solely aesthetic nature)? . . . . .  Yes  No
- b. New or significantly improved services? . . . . .  Yes  No

**1-12 If you answered "yes" to either 1-11, line a, or 1-11, line b, were any of your product innovations during the three years 2014 to 2016:**

- a. New to your market? . . . . .  Yes  No  
 Your company introduced a new or significantly improved good or service to your market before your competitors. (It may have been available in other markets.)
- b. New only to your company? . . . . .  Yes  No  
 Your company introduced a new or significantly improved good or service that was already available from your competitors in your market.

**1-13 Using the definitions above, please give the percentage of your total sales in 2016 from:**

- a. New or significantly improved goods and services introduced during 2014 to 2016 that were **new to your market** . . . . .    %
- b. New or significantly improved goods and services introduced during 2014 to 2016 that were **new only to your company** . . . . .    %
- c. Goods and services that were **unchanged or only marginally modified** during 2014 to 2016 (include the resale of new goods or services purchased from other companies) . . . . .    %
- d. **Total sales in 2016** . . . . .    %





## Process innovation

A process innovation is the implementation of a **new** or **significantly** improved production process, distribution method, or support activity for your goods or services.

- Process innovations must be new to your company, but they do not need to be new to your market.
- The innovation could have been originally developed by your company or by other companies.
- Exclude purely organizational innovations.

### 1-14 During the three years 2014 to 2016, did your company introduce:

- |  |                          |     |                          |    |
|--|--------------------------|-----|--------------------------|----|
| a. New or significantly improved methods of manufacturing or producing goods or services? .....  | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| b. New or significantly improved logistics, delivery or distribution methods for your inputs, goods, or services? .....  | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| c. New or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing? ..... | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |



# SECTION 2

## Financial Schedule A

**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 financial information about your company's R&D expenses and capital expenditures for R&D. 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 total worldwide R&D expense for your company in 2016?**

**If your company is publicly traded**, this amount is equivalent to that disclosed on SEC Form 10-K as defined in FASB ASC Topic 730, Research and Development (FASB Statement No. 2, "Accounting for Research and Development Costs.")

**If your company is foreign-owned**, refer to the instructions on page 4. Additional guidance, such as for **privately owned companies**, is available online at <https://econhelp.census.gov/brdis>.

**NOTE:** Report your company's R&D expense even if the amount is not considered material for your company's financial statements.

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**2-2 Does the amount reported in Question 2-1 include any of the following 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 government or private foundation grants . . . . .  Yes  No
- c. Technical services not an integral part of an R&D project (such as product support provided by R&D employees) . . . . .  Yes  No
- d. Bid and proposal costs . . . . .  Yes  No
- e. Expense your company claimed resulting from the acquisition of another company with unfinished R&D projects (in-process R&D) . . . . .  Yes  No
- f. Phase IV clinical trials . . . . .  Yes  No

**2-3 If you answered "Yes" to any of the costs in Question 2-2, what was the amount of these costs that was included in your response to Question 2-1?**

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**2-4 Subtract Question 2-3 from Question 2-1 and enter the result here. This is the total R&D paid for by your company in 2016.**

\$Bil.	Mil.	Thou.
<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>

**2-5 Is the amount entered in Question 2-4 greater than zero?**

- Yes → **Continue with Question 2-6**
- No → **Skip to Question 2-31 on page 20**

SECTION 2



**Indirect R&D charges**

**2-6** How much of the amount reported in Question 2-4 was for R&D costs your company plans to recoup through indirect charges on U.S. federal government contracts (IR&D or independent R&D)?

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**R&D paid for by your company**

**2-7** Of the amount reported in Question 2-4, what were the costs for each business code listed or amended on page 6 of this form?

**Allocate R&D that is applicable to more than one business code** on a reasonable basis. Allocation in proportion to operating revenues is acceptable unless some alternative allocation basis is more appropriate.

Business code (see page 6)	\$Bil.	Mil.	Thou.
a. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
f. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
g. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
h. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i. <b>Total</b> (equals Question 2-4)	<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-8** Of the amount reported in Question 2-4, what costs were incurred by your company in the following locations?

	\$Bil.	Mil.	Thou.
a. Domestic United States (50 states and D.C.) [Include R&D performed by domestic operations that is paid for by foreign subsidiaries]	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. All other countries (also, Puerto Rico) [Include R&D performed by foreign subsidiaries that is paid for by domestic operations]	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <b>Total</b> (equals Question 2-4).	<input type="text"/>	<input type="text"/>	<input type="text"/>

SECTION 2



**2-9** Copy the amount from Question 2-8, line a. This is the total domestic R&D paid for by your company in 2016.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-10** Copy the amount from Question 2-8, line b. This is the total foreign R&D paid for by your company in 2016.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-11** How much of the (1) domestic, (2) foreign, and (3) total worldwide R&D paid for by your company in 2016 was for each of the following types of costs?

	(1) Domestic			(2) Foreign			(3) Total worldwide		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
a. Salaries, wages, and fringe benefits	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. Stock-based compensation	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. Leased or temporary staffing, including on-site consultants, working on R&D	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. Expensed equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. Materials and supplies	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
f. Leased facilities and equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
g. Depreciation and amortization on R&D property and equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
h. Royalties and licensing fees (including payments made to others for the use of patents and other forms of intellectual property used in your company's R&D)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i. Payments to business partners for collaborative R&D	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
j. Purchased R&D services (if your company is foreign-owned, include payments to your foreign owner for R&D)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Question continues on next page



**2-11 (Continued)**

	(1) Domestic			(2) Foreign			(3) Total worldwide		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
k. All other purchased services except R&D	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
l. All other costs (including administrative and overhead costs <b>clearly associated with your company's R&amp;D</b> )	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
m. <b>Total</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<i>Total equals Question 2-9</i>			<i>Total equals Question 2-10</i>			<i>Total equals Question 2-4</i>		

**2-12 Add 2-11, lines i and j for each column, and enter the result here. This is R&D performed by others.**

	(1) Domestic			(2) Foreign			(3) Total worldwide		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-13 Subtract 2-12 from 2-11, line m, for each column and enter the result here. This is R&D performed by your company.**

	(1) Domestic			(2) Foreign			(3) Total worldwide		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-14 Copy the amount from Question 2-13, column 2. This is the foreign R&D paid for and performed by your company in 2016.**

	\$Bil.	Mil.	Thou.
	<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-15 Of the amount reported in Question 2-14, how much R&D was performed in the following locations?** For full list of countries in each region see Question by Question Guidance at <https://econhelp.census.gov/brdis>.

	\$Bil.	Mil.	Thou.		\$Bil.	Mil.	Thou.
Canada . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Belgium . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Puerto Rico . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Czech Rep. . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Europe</b>	\$Bil.	Mil.	Thou.	Denmark . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Austria . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Finland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

Question continues on next page



**2-15 (Continued)**

	\$Bil.	Mil.	Thou.
France . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Germany . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hungary . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ireland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Italy . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Luxembourg . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Netherlands . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Norway . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Poland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Russia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Spain . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sweden . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Switzerland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Turkey . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
United Kingdom . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Europe . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Latin America/  
Other Western  
Hemisphere**

	\$Bil.	Mil.	Thou.
Argentina . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Brazil . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Chile . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

	\$Bil.	Mil.	Thou.
Mexico . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Latin America/OWH . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Asia and Pacific**

	\$Bil.	Mil.	Thou.
Australia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
China . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hong Kong . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
India . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Indonesia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Japan . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Malaysia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
New Zealand . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Singapore . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
South Korea . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Taiwan . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Thailand . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Asia/Pacific . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Middle East**

	\$Bil.	Mil.	Thou.
Israel . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Middle East . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

Question continues on next page



**2-15 (Continued)**

Africa	\$Bil.	Mil.	Thou.	Total (equals Question 2-14)	\$Bil.	Mil.	Thou.
South Africa . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Africa . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>				

**2-16 Copy the amount from Question 2-13, column 1. This is the domestic R&D paid for and performed by your company in 2016.**

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-17 How much of the amount reported in Question 2-16 was performed in each state (including D.C.) in 2016?**

	\$Bil.	Mil.	Thou.		\$Bil.	Mil.	Thou.
Alabama . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Indiana . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Alaska . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Iowa . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Arizona . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Kansas . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Arkansas . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Kentucky . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
California . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Louisiana . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Colorado . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Maine . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Connecticut . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Maryland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Delaware . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Massachusetts . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
District of Columbia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Michigan . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Florida . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Minnesota . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Georgia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Mississippi . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hawaii . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Missouri . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Idaho . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Montana . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Illinois . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Nebraska . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

Question continues on next page

SECTION 2



**2-17 (Continued)**

	\$Bil.	Mil.	Thou.		\$Bil.	Mil.	Thou.
Nevada . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	South Carolina . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
New Hampshire . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	South Dakota . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
New Jersey . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Tennessee . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
New Mexico . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Texas . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
New York . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Utah . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
North Carolina . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Vermont . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
North Dakota . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Virginia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ohio . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Washington . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Oklahoma . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	West Virginia . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Oregon . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Wisconsin . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Pennsylvania . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Wyoming . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rhode Island . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	<b>Total</b> (equals Question 2-16) . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-18 At what domestic location did your company perform the largest dollar amount of R&D in 2016?**

**Address 1**

**Address 2**

**City**

**State**

**ZIP**

**2-19 How much of the amount reported in Question 2-16 was from the location identified in Question 2-18?**

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>







**R&D transactions between legal entities under common ownership**

**2-23 How much of the amount reported in Question 2-16 (domestic R&D performance) was paid for by your company's foreign subsidiaries through inter-company transactions?**

**Example:** Company Y owns a subsidiary in France. In order to complete the development of a product in 2016, the French subsidiary paid for R&D performed at Company Y's U.S. R&D center. The cost of the U.S. R&D that was paid for by the French subsidiary would be included in this item.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-24 How much of the amount reported in Question 2-14 (foreign R&D performance) was paid for by your company's domestic operations through inter-company transactions?**

**Example:** Company Z owns a subsidiary in France. In order to complete the development of a product in 2016, the domestic operations paid for R&D performed at its subsidiary's R&D center in France. The cost of the French subsidiary's R&D that was paid for by the domestic operations would be included in this item.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**R&D performed by others**

**2-25 Copy the amount from Question 2-12, column 1. This is the domestic R&D paid for by your company in 2016 that was performed by others.**

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-26 How much of the amount reported in Question 2-25, was performed by the following types of organizations?**

- a. Companies located inside the United States . . . . .
- b. Your company's foreign parent (if you are owned by a foreign parent). . . . .
- c. Other companies located outside the United States . . . . .
- d. U.S. federal government agencies or laboratories. . . . .
- e. U.S. state and local government agencies or laboratories. . .
- f. Universities, colleges, and academic researchers (including principal investigators) located inside the United States . . . .
- g. All other organizations inside the United States . . . . .
- h. All other organizations outside the United States . . . . .
- i. **Total domestic R&D paid for by your company that was performed by others** (equals Question 2-25) . . . . .

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

SECTION 2



**Activities with academia**

**2-27** In addition to the amount reported in Question 2-26, line f, did your company make monetary gifts to U.S. universities or colleges in 2016 that included support for R&D?

Yes → Continue with Question 2-28

No → Skip to Question 2-29

**2-28** What was the amount of monetary gifts made by your company to U.S. universities or colleges in 2016 that was for R&D?

\$Bil.		Mil.			Thou.		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Projected R&D for 2017**

**2-29** What are your company's projected 2017 costs for (1) domestic, (2) foreign, and (3) total worldwide R&D paid for by your company?

**NOTE:** These amounts are the 2017 projections for the amounts reported in Question 2-11, line m.

(1) Domestic			(2) Foreign			(3) Total worldwide		
\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-30** How much of the amount reported in Question 2-29, column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D?

Domestic		
\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

SECTION 2



**Capital expenditures**

**2-31** What was the amount of your company's capital expenditures in the domestic United States in 2016?

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-32** How much of the amount reported in Question 2-31 was for R&D operations?

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**2-33** How much of the amount reported in Question 2-32 was for the following?

- a. Land and structures .....
- b. Equipment .....
- c. Capitalized software .....
- d. All other capital expenditures for R&D operations .....
- e. **Total domestic capital expenditures for R&D**  
(equals Question 2-32) .....

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

**Reporting information**

**2-34** Is the information in this section reported for the 2016 calendar year?

Yes

No → Enter time period covered below:

From  (MM)  (YYYY) to  (MM)  (YYYY)



# SECTION 3

## Financial Schedule B

**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 financial information about your company's costs for work that was funded, paid for, or reimbursed by others. This section requests information about these costs 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 What were your company's total worldwide costs (both direct and indirect) in 2016 for the following that were funded, paid for, or reimbursed by others not owned by your company?**

**Exclude:**

- Costs that were paid for by your company, such as those reported in Question 2-4
- Payments in excess of the actual cost of the work performed (such as profit or fees)

	\$Bil.	Mil.	Thou.
a. R&D that was reimbursed by your company's foreign parent (if you are owned by a foreign parent) . . . . .	□ □	□ □ □	□ □ □
b. Collaborative R&D that was reimbursed by business partners, such as through cost-sharing agreements. . . . .	□ □	□ □ □	□ □ □
c. R&D paid for by government or private foundation grants . .	□ □	□ □ □	□ □ □
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://econhelp.census.gov/brdis>.

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, not included above, provided to the Federal Government or to others not owned by your company. . . . .	□ □	□ □ □	□ □ □
<b>j. Total.</b> . . . . .	□ □	□ □ □	□ □ □

SECTION 3



**3-2** Copy the amount from Question 3-1, line j. This is the total R&D paid for by others in 2016.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-3** Is the amount entered in Question 3-2 greater than zero?

- Yes → Continue with Question 3-4
- No → Skip to Section 4 on page 35

**R&D paid for by others**

**3-4** Of the amount reported in Question 3-2, what costs were incurred by your company in the following locations?

	\$Bil.	Mil.	Thou.
a. Domestic United States (50 states and D.C.) . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. All other countries (also, Puerto Rico) . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <b>Total</b> (equals Question 3-2). . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-5** Copy the amount from Question 3-4, line a. This is the total domestic R&D paid for by others in 2016.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-6** Copy the amount from Question 3-4, line b. This is the total foreign R&D paid for by others in 2016.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>



**3-7** How much of the (1) domestic, (2) foreign, and (3) total worldwide R&D paid for by others in 2016 was for each of the following types of costs?

	(1) Domestic			(2) Foreign			(3) Total worldwide		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
a. Salaries, wages, and fringe benefits	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. Stock-based compensation	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. Leased or temporary staffing, including on-site consultants, working on R&D	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. Expensed equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. Materials and supplies	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
f. Leased facilities and equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
g. Depreciation and amortization on R&D property and equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
h. Royalties and licensing fees (including payments made to others for the use of patents and other forms of intellectual property used in your company's R&D)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i. Payments to business partners for collaborative R&D	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
j. Purchased R&D services (if your company is foreign-owned, include payments to your foreign owner for R&D)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
k. All other purchased services except R&D	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
l. All other costs (including administrative and overhead costs clearly associated with your company's R&D)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Question continues on next page



**3-7 (Continued)**

	(1) Domestic			(2) Foreign			(3) Total worldwide		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
<b>m. Total</b>									
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Total equals Question 3-5			Total equals Question 3-6			Total equals Question 3-2		

**3-8 Add 3-7, lines i and j for each column, and enter the result here. This is R&D performed by others (e.g., subcontracted/passed-through R&D costs).**

	(1) Domestic			(2) Foreign			(3) Total worldwide		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-9 Subtract 3-8 from 3-7, line m, for each column and enter the result here. This is R&D performed by your company that was paid for by others.**

	(1) Domestic			(2) Foreign			(3) Total worldwide		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-10 Copy the amount from Question 3-9, column 2. This is the foreign R&D performed by your company that was paid for by others.**

	\$Bil.	Mil.	Thou.
	<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-11 Of the amount reported in Question 3-10, how much R&D was performed in the following locations?** For full list of countries in each region see Question by Question Guidance at <https://econhelp.census.gov/brdis>.

	\$Bil.	Mil.	Thou.		\$Bil.	Mil.	Thou.
Canada . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	France . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Puerto Rico . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Germany . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Europe</b>				Hungary . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Austria . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Ireland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Belgium . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Italy . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Czech Rep . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Luxembourg . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Denmark . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>	Netherlands . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Finland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>				

Question continues on next page





**3-11 (Continued)**

	\$Bil.	Mil.	Thou.
Norway . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Poland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Russia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Spain . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sweden . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Switzerland . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Turkey . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
United Kingdom . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Europe . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Latin America/  
Other Western  
Hemisphere**

	\$Bil.	Mil.	Thou.
Argentina . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Brazil . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Chile . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Mexico . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Latin America/OWH . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Asia and Pacific**

	\$Bil.	Mil.	Thou.
Australia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
China . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

	\$Bil.	Mil.	Thou.
Hong Kong . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
India . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Indonesia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Japan . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Malaysia . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
New Zealand . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Singapore . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
South Korea . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Taiwan . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Thailand . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Asia/Pacific . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Middle East**

	\$Bil.	Mil.	Thou.
Israel . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Middle East . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Africa**

	\$Bil.	Mil.	Thou.
South Africa . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Africa . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>Total</b> (equals Question 3-10) . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
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**3-12** Copy the amount from Question 3-9, column 1. This is the domestic R&D performed by your company that was paid for by others.

	\$Bil.	Mil.	Thou.
	<input type="text"/>	<input type="text"/>	<input type="text"/>



**3-13 How much of the domestic R&D performed by your company that was paid for by others reported in Question 3-12 was for each business code listed or amended on page 6 of this form?**

**Allocate R&D that is applicable to more than one business code** on a reasonable basis. Allocation in proportion to operating revenues is acceptable unless some alternative allocation basis is more appropriate.

Business code (see page 6)		\$Bil.	Mil.	Thou.
a.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
b.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
c.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
d.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
e.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
f.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
g.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
h.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
i.	<b>Total</b> (equals Question 3-12)	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

**3-14 How much of the amount reported in Question 3-12 was paid for by each of the following?**

**If your company is a subcontractor or subgrantee, report the original source of funds.**

**Example:** Company Sub Inc. performs custom software development for a large defense company as a subcontractor on a contract with the U.S. Dept. of Defense. Even though Sub Inc. is working directly for the defense company, it reports the cost of this development in line d because the Dept. of Defense was the original source of funds.

	\$Bil.	Mil.	Thou.
a. Other companies located <u>inside</u> the United States	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
b. Your company's foreign parent (if you are owned by a foreign parent)	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
c. Other companies located <u>outside</u> the United States	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
d. U.S. federal government agencies or laboratories	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

**Question continues on next page**



**3-14 (Continued)**

	\$Bil.	Mil.	Thou.
e. U.S. state government agencies or laboratories . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
f. Universities, colleges, and academic researchers (including principal investigators) located <u>inside</u> the United States . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
g. All other organizations <u>inside</u> the United States . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
h. All other organizations <u>outside</u> the United States . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
i. <b>Total</b> (equals Question 3-12). . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-15 Add Question 3-14, lines a, b, and c, and enter the result here. This is the R&D that was paid for by other companies.**

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-16 Using the list of business codes printed below, allocate the amount reported in Question 3-15 based on the industries of the companies that paid for the R&D. As needed, enter additional codes from pages 46-47 in the spaces provided.**

Business code	Description	\$Bil.	Mil.	Thou.
a. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Biotechnology-based pharmaceutical and biological products (except diagnostics) . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Pharmaceutical, medicinal, and botanical products manufacturing . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Electrical equipment, appliances, and components manufacturing . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Semiconductor and other electronic components manufacturing . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Medical equipment and supplies manufacturing . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
f. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Motor vehicles manufacturing . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
g. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> ..	<input type="text"/>	<input type="text"/>	<input type="text"/>
h. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> ..	<input type="text"/>	<input type="text"/>	<input type="text"/>
i. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> ..	<input type="text"/>	<input type="text"/>	<input type="text"/>
j. <b>Total</b> (equals Question 3-15) . . . . .		<input type="text"/>	<input type="text"/>	<input type="text"/>

SECTION 3



**3-17** Copy the amount from Question 3-14, line d. This is domestic R&D performed by your company that was paid for by the U.S. federal government.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-18** How much of the amount reported in Question 3-17 was paid for by the following agencies?

	\$Bil.	Mil.	Thou.
a. Department of Defense . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. Department of Energy . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. National Aeronautics and Space Administration . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. National Institutes of Health . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. Department of Homeland Security . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
f. Department of Transportation . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
g. Environmental Protection Agency . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
h. National Science Foundation . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
i. All other, please specify: <input type="text"/> . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
j. <b>Total</b> (equals Question 3-17). . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-19** How much of the amount reported in Question 3-17 was performed under the following types of agreements?

	\$Bil.	Mil.	Thou.
a. Contracts (include direct or prime contracts and subcontracts). . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. Grants, reimbursements, and all other agreements . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <b>Total</b> (equals Question 3-17) . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-20** Subtract Question 3-17 from Question 3-12 and enter the result here. This is the domestic R&D performed by your company that was paid for by nonfederal sources.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>



**3-21** How much of the following three amounts was performed in each state (including D.C.):

- (1) Domestic R&D paid for by the U.S. federal government reported in Question 3-17
- (2) Domestic R&D paid for by nonfederal sources reported in Question 3-20
- (3) Total domestic R&D performed by your company that was paid for by others reported in Question 3-12

	(1) Federal			(2) Nonfederal			(3) Total		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
Alabama	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Alaska	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Arizona	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Arkansas	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
California	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Colorado	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Connecticut	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Delaware	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
District of Columbia	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Florida	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Georgia	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hawaii	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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SECTION 3



**3-21 (Continued)**

	<b>(1) Federal</b>			<b>(2) Nonfederal</b>			<b>(3) Total</b>		
	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>
Idaho	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Illinois	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Indiana	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Iowa	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Kansas	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Kentucky	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Louisiana	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Maine	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Maryland	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Massachusetts	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Michigan	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Minnesota	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Mississippi	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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**3-21 (Continued)**

	<b>(1) Federal</b>			<b>(2) Nonfederal</b>			<b>(3) Total</b>		
	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>
Missouri	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Nebraska	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Nevada	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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New Jersey	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
New Mexico	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
New York	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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North Dakota	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ohio	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Oklahoma	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Oregon	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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SECTION 3



**3-21 (Continued)**

	<b>(1) Federal</b>			<b>(2) Nonfederal</b>			<b>(3) Total</b>		
	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>	<u>\$Bil.</u>	<u>Mil.</u>	<u>Thou.</u>
Pennsylvania	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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South Carolina	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
South Dakota	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Tennessee	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Texas	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Utah	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Vermont	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Washington	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
West Virginia	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Wisconsin	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Wyoming	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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SECTION 3





**3-21 (Continued)**

Total	(1) Federal			(2) Nonfederal			(3) Total		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
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**R&D performed by others**

**3-26** Copy the amount from Question 3-8, column 1. This is the domestic R&D performed by others that was paid for by others.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-27** Of the amount reported in Question 3-26, how much R&D was paid for by U.S. federal government agencies or laboratories?

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**Projected R&D paid for by others in 2017**

**3-28** What are your company's projected 2017 costs for R&D that will be paid for by others?

**NOTE:** This amount is the 2017 projection for what is reported in Question 3-2.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-29** How much of the projected costs in 2017 for R&D that will be paid for by others reported in Question 3-28 will be performed by your company in the United States?

**NOTE:** This amount is the 2017 projection for what is reported in Question 3-12.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**3-30** How much of the projected costs in 2017 for domestic R&D performed by your company that will be paid for by others reported in Question 3-29 will be paid for by the U.S. federal government?

**NOTE:** This amount is the 2017 projection for what is reported in Question 3-17.

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>



# SECTION 4

## 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.

**4-1 Copy the amount from Question 2-4. This is the total R&D paid for by your company in 2016.**

\$Bil.	Mil.	Thou.
<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>

**4-2 Is the amount entered in Question 4-1 greater than zero?**

- Yes → **Continue with Question 4-3**
- No → **Skip to Question 4-15 on page 37**

**4-3 What percentage of the amount reported in Question 4-1 was directed toward business areas or product lines that are new to your company?**

**Example:** Company A manufactures laptop computers. In 2016 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 2016, Company A reports this R&D in this question.

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

**4-4 Copy the amount from Question 2-16. This is the domestic R&D paid for and performed by your company.**

\$Bil.	Mil.	Thou.
<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>

**4-5 How much of the amount reported in Question 4-4 was for the following categories?**

- a. 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 products or processes . . . . .
- c. **Total** (equals Question 4-4). . . . .

\$Bil.	Mil.	Thou.
<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>
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SECTION 4



**4-6 If you reported any research in Question 4-5, line a, how much of that research was for the following categories?**

	\$Bil.	Mil.	Thou.
a. <u>Applied research</u> —activities aimed at solving a specific problem or meeting a specific commercial objective. . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. <u>Basic research</u> —activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <b>Total</b> (equals Question 4-5, line a) . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Areas of application for domestic R&D paid for and performed by your company**

**NOTE: You may report the same R&D in multiple areas for Questions 4-7 to 4-11.**

**4-7 What percentage of the amount reported in Question 4-4 had energy applications, including energy production, distribution, storage, and efficiency (excluding exploration and prospecting)?**

**Example:** Company B is a semiconductor manufacturer. Its products are not designed specifically for energy applications. In 2016, 10% of the domestic R&D performed by the company was focused on improving the energy efficiency of its products. Based on this, Company B reports "10%" for this question.

%

**4-8 What percentage of the amount reported in Question 4-4 had environmental protection applications, including pollution abatement?**

%

**4-9 What percentage of the amount reported in Question 4-4 had defense applications, including military applications and general security-related R&D?**

%

**4-10 What percentage of the amount reported in Question 4-4 had health or medical applications?**

%

**4-11 What percentage of the amount reported in Question 4-4 had agricultural applications?**

%

**Technology focus of domestic R&D paid for and performed by your company**

**NOTE: You may report the same R&D in multiple areas for Questions 4-12 to 4-14.**

**4-12 What percentage of the amount reported in Question 4-4 was for software products or software embedded in other projects or products?**

%

**4-13 What percentage of the amount reported in Question 4-4 was for biotechnology—the use of cellular and bio-molecular processes to solve problems or make useful products?**

%

**4-14 What percentage of the amount reported in Question 4-4 was for nanotechnology—the science and technology involving work at the nanometer scale?**

%



**Domestic R&D performed by your company that was paid for by others**

**4-15** Copy the amount from Question 3-12. This is the domestic R&D performed by your company that was paid for by others.

\$Bil.	Mil.	Thou.
□ □	□ □ □	□ □ □

**4-16** Is the amount entered in Question 4-15 greater than zero?

- Yes → **Continue with Question 4-17**
- No → **Skip to Question 4-32 on page 39**

**4-17** How much of the amount reported in Question 4-15 was for the following categories?

	\$Bil.	Mil.	Thou.
a. <u>Research</u> —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. <b>Total</b> (equals Question 4-15). . . . .	□ □	□ □ □	□ □ □

**4-18** If you reported any research in Question 4-17, line a, how much of that research was for the following categories?

	\$Bil.	Mil.	Thou.
a. <u>Applied research</u> —activities aimed at solving a specific problem or meeting a specific commercial objective. . . . .	□ □	□ □ □	□ □ □
b. <u>Basic research</u> —activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses . . . . .	□ □	□ □ □	□ □ □
c. <b>Total</b> (equals Question 4-17, line a). . . . .	□ □	□ □ □	□ □ □

**NOTE: You may report the same R&D in multiple areas for Questions 4-19 to 4-23.**

**4-19** What percentage of the amount reported in Question 4-15 had energy applications, including energy production, distribution, storage, and efficiency (excluding exploration and prospecting)?

□ □ □ □ %
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**4-20** What percentage of the amount reported in Question 4-15 had environmental protection applications, including pollution abatement?

□ □ □ □ %
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**4-21** What percentage of the amount reported in Question 4-15 had defense applications, including military applications and general security-related R&D?

□ □ □ □ %
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**SECTION 4**



**4-22** What percentage of the amount reported in Question 4-15 had health or medical applications?

				%
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**4-23** What percentage of the amount reported in Question 4-15 had agricultural applications?

				%
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**Technology focus of domestic R&D performed by your company that was paid for by others**

**NOTE:** You may report the same R&D in multiple areas for Questions 4-24 to 4-26.

**4-24** What percentage of the amount reported in Question 4-15 was for software products or software embedded in other projects or products?

				%
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**4-25** What percentage of the amount reported in Question 4-15 was for biotechnology—the use of cellular and bio-molecular processes to solve problems or make useful products?

				%
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**4-26** What percentage of the amount reported in Question 4-15 was for nanotechnology—the science and technology involving work at the nanometer scale?

				%
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**Domestic R&D performed by your company that was paid for by the U.S. federal government**

**4-27** Copy the amount from Question 3-17. This is domestic R&D performed by your company that was paid for by the U.S. federal government.

\$Bil.	Mil.	Thou.

**4-28** Is the amount entered in Question 4-27 greater than zero?

- Yes → Continue with Question 4-29
- No → Skip to Question 4-32 on page 39

**4-29** How much of the amount reported in Question 4-27 was for the following categories?

- a. 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 products or processes. . . . .
- c. **Total** (equals Question 4-27). . . . .

\$Bil.	Mil.	Thou.

SECTION 4



**4-30 If you reported any research in Question 4-29, line a, how much of that research was for the following categories?**

	\$Bil.	Mil.	Thou.
a. <u>Applied research</u> —activities aimed at solving a specific problem or meeting a specific commercial objective. . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. <u>Basic research</u> —activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses . . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <b>Total</b> (equals Question 4-29, line a). . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**4-31 What percentage of the amount reported in Question 4-27 was for software products or software embedded in other projects or products?**

%

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

**4-32 Copy the amount from Question 2-14. This is the foreign R&D paid for and performed by your company.**

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**4-33 How much of the amount reported in Question 4-32 was for the following categories?**

	\$Bil.	Mil.	Thou.
a. <u>Research</u> —planned, systematic pursuit of new knowledge or understanding. . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
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. . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <b>Total</b> (equals Question 4-32). . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Characteristics of foreign R&D performed by your company that was paid for by others**

**4-34 Copy the amount from Question 3-10. This is the foreign R&D performed by your company and paid for by others.**

\$Bil.	Mil.	Thou.
<input type="text"/>	<input type="text"/>	<input type="text"/>

**4-35 How much of the amount reported in Question 4-34 was for the following categories?**

	\$Bil.	Mil.	Thou.
a. <u>Research</u> —planned, systematic pursuit of new knowledge or understanding. . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
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. . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. <b>Total</b> (equals Question 4-34). . . . .	<input type="text"/>	<input type="text"/>	<input type="text"/>

SECTION 4



# SECTION 5

## 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.

**5-1 What was the total number of worldwide employees working at your company for the pay period that included March 12, 2016?**

**Include:**

- Full- and part-time employees

**Exclude:**

- Leased or temporary employees and consultants

Number

--	--	--	--	--	--	--

**5-2 How many of the employees reported in Question 5-1 were employees of your company's domestic operations and foreign operations?**

**Domestic operations employees** include all employees whose payroll was reported on the first quarter filing of IRS Form 941, Employer's Quarterly Tax Return.

	(1) Domestic operations	(2) Foreign operations	(3) Total employees																		
Employees . . . . .	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>							<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>							<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>						

*Total equals  
Question 5-1*

**5-3 How many employees reported in Question 5-2 were R&D employees and how many were all other employees?**

**R&D employees include** all employees who work on R&D or who provide direct support to R&D, such as researchers, R&D managers, technicians, clerical staff, and others assigned to R&D groups. **Exclude** employees who provide only indirect support to R&D, such as corporate personnel, security guards, and cafeteria workers.

	(1) Domestic operations	(2) Foreign operations	(3) Total employees																		
a. R&D employees . . . . .	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>							<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>							<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>						
b. All other employees . . .	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>							<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>							<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>						
c. <b>Total employees</b> . . . . .	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>							<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>							<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> <td style="width: 20px; height: 25px;"> </td> </tr> </table>						

*Total line equals Question 5-2*

SECTION 5





**R&D employees**

**5-4** Copy the numbers from Question 5-3, line a. These are your company's R&D employees.

	(1) Domestic operations	(2) Foreign operations	(3) Total R&D employees
R&D employees . . . . .	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

**5-5** How many of the R&D employees reported in Question 5-4 were female employees and male employees?

	(1) Domestic operations	(2) Foreign operations	(3) Total R&D employees
a. Female R&D employees	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
b. Male R&D employees . .	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
c. <b>Total R&amp;D employees</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Total line equals Question 5-4

**5-6** How many of the R&D employees reported in Question 5-4 worked in the occupations listed below?

	(1) Domestic operations	(2) Foreign operations	(3) Total R&D employees
a. Researchers (including R&D scientists, engineers, and their managers). . . . .	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
b. R&D technicians and equivalent staff . . . . .	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
c. R&D support staff (clerical and other) . . . .	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
d. <b>Total R&amp;D employees</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Total line equals Question 5-4

**5-7** How many of the researchers reported in Question 5-6, line a, had the following level of education?

	(1) Domestic Operations	(2) Foreign Operations	(3) Total
PhD (excluding MD, JD, and EdD) . . . . .	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

SECTION 5



**Domestic full-time equivalents (FTEs)**

**5-8** Of the domestic R&D employees reported in Question 5-4, column 1, what was the number of full-time equivalents (FTEs) for R&D activity for full-time R&D employees, other full-time employees not working solely on R&D, and part-time employees?

a. FTEs for full-time R&D employees Number  
 Count the number of full-time employees who work only on R&D. . . . .

**Example:**  
 50 full-time R&D employees worked only on R&D = 50 FTEs

b. FTEs for other full-time employees not working solely on R&D  
 Use the share of the time they work on R&D to calculate the number of FTEs. . . . .

**Example:**  
 60 full-time employees averaged one-fourth of their time on R&D = 15 FTEs

c. FTEs for part-time employees working on R&D  
 Use the share of a full-time week (such as 40 hours) that they work on R&D to calculate the FTEs. . . . .

**Example:**  
 20 part-time employees averaged 20 hours a week on R&D activities = 10 FTEs

d. **Total FTEs** . . . . .

*Total FTEs should not exceed Question 5-4, column 1.*

SECTION 5



**5-9** Of the domestic researchers reported in Question 5-6, line a, column 1, what was the number of full-time equivalents (FTEs) for R&D activity for full-time R&D employees, other full-time employees not working solely on R&D, and part-time employees?

a. FTEs for full-time researchers Number  
 Count the number of full-time employees who work only on R&D. . . . .

**Example:**  
 50 full-time R&D scientists worked only on R&D = 50 FTEs

b. FTEs for other full-time researchers not working solely on R&D  
 Use the share of the time they work on R&D to calculate the number of FTEs . . . . .

**Example:**  
 60 full-time managers averaged one-fourth of their time on R&D = 15 FTEs

c. FTEs for part-time researchers working on R&D  
 Use the share of a full-time week (such as 40 hours) that they work on R&D to calculate the FTEs. . . . .

**Example:**  
 20 part-time employees averaged 20 hours a week on R&D activities = 10 FTEs

d. **Total FTEs** . . . . .

*Total FTEs should not exceed Question 5-6, line a, column 1.*

**5-10** How many of the domestic researchers reported in Question 5-6, line a, column 1, were non-U.S. citizens employed in the United States under a temporary visa, such as H-1B or L-1?

(1)  
 Domestic Operations

Researchers employed under a temporary visa . . . . .

SECTION 5



## SECTION 6

### 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 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 are seen only by persons sworn to uphold the confidentiality of Census Bureau information. Data provided will be used only to publish summary statistics that do not identify individual companies. 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

<b>6-1</b>	<b>How many total patents did your company <u>apply</u> for in 2016 from the U.S. Patent and Trademark Office (USPTO)?</b>	<b>Number</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>6-2</b>	<b>Of the patent applications reported in Question 6-1, what was the number of <u>nonprovisional utility patent</u> applications?</b>	<b>Number</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>6-3</b>	<b>What percentage of the nonprovisional utility patent applications reported in Question 6-2 has your company applied for or plans to apply for in foreign jurisdictions?</b>		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> %
<b>6-4</b>	<b>What percentage of the nonprovisional utility patent applications reported in Question 6-2 was for inventions that originated within your company's organized R&amp;D activities?</b>		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> %
<b>6-5</b>	<b>What percentage of your company's inventions <u>considered</u> for patenting in 2016 resulted in nonprovisional utility patent applications?</b>		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> %
<b>6-6</b>	<b>How many <u>utility patents</u> were <u>issued</u> to your company in 2016 by the USPTO?</b>	<b>Number</b>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

#### Utility patent sales and licensing to others

<b>6-7</b>	<b>How much revenue did your company receive in 2016 from the sale of utility patents?</b>	\$Bil.	Mil.	Thou.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>6-8</b>	<b>How much revenue did your company receive in 2016 from utility patent licensing?</b>	\$Bil.	Mil.	Thou.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>



**6-9** Was any of the revenue reported in Questions 6-7 or 6-8 received from companies or organizations located outside the United States?  Yes  No

**Utility patent purchases and licensing from others**

**6-10** How much did your company pay others in 2016 to purchase utility patents?  \$Bil.  Mil.  Thou.

**6-11** How much did your company pay others in 2016 to license utility patents?  \$Bil.  Mil.  Thou.

**6-12** Were any of the payments reported in Questions 6-10 or 6-11 made to companies or organizations located outside the United States?  Yes  No

**Intellectual property transfer activities**

- 6-13** Did your company perform the following activities in 2016?
- a. Transferred intellectual property (IP) to others not owned by your company through participation in technical assistance or "know how" agreements  Yes  No
  - b. Received IP from others not owned by your company through participation in technical assistance or "know how" agreements  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 spin-out.  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 in which two or more parties grant a license to each other for the use of the subject matter claimed in one or more of the patents owned by each party.  Yes  No
  - h. Allowed free use of patents or other IP owned by your company (for example, open source software)  Yes  No
  - i. Made use of open source patents or other freely available IP not owned by your company.  Yes  No

**Research and experimentation tax credit**

**6-14** Did your company file for the tax credit for increasing research activities (IRS Form 6765) in tax year 2016?  Yes  No



**Business codes**

(used in Sections 1, 2, and 3)

**Aerospace and Defense**

- 33642 Aircraft engine and engine parts manufacturing
- 33641 Aircraft manufacturing
- 33644 Guided missiles, space vehicles, and parts manufacturing
- 33692 Military armored vehicle, tank, and tank components manufacturing
- 33452 Search, detection, navigation, guidance, aeronautical, and nautical system and instruments manufacturing
- 33660 Ship and boat building
- 33643 Other aircraft parts and auxiliary equipment manufacturing

**Automobiles, Motorcycles, and Components**

- 33620 Motor vehicle body and trailer manufacturing
- 33630 Motor vehicle parts manufacturing
- 33610 Motor vehicles manufacturing
- 33691 Motorcycle, bicycle, and parts manufacturing
- 33651 Railroad rolling stock manufacturing
- 33660 Ship and boat building
- 33699 All other transportation equipment manufacturing

**Capital Equipment**

- 33311 Agricultural machinery and equipment manufacturing
- 33332 Commercial, service industry, temperature control, and airflow control machinery manufacturing
- 33312 Construction machinery manufacturing
- 33500 Electrical equipment, appliances, and components manufacturing
- 33360 Engine, turbine, and power transmission equipment manufacturing
- 33322 Industrial machinery manufacturing, except semiconductor machinery
- 33390 Metalworking and other general purpose machinery manufacturing
- 33319 Mining, oil, and gas field machinery and equipment manufacturing
- 33331 Photographic and photocopying equipment manufacturing

**Chemicals and Materials**

- 32402 Asphalt paving, roofing, and saturated materials manufacturing
- 32510 Basic chemicals manufacturing
- 32790 Cement, concrete, lime, gypsum, and other nonmetallic mineral product manufacturing
- 32710 Clay and glass products manufacturing
- 21200 Mining
- 32592 Paint, adhesive, and other chemical manufacturing
- 32200 Paper manufacturing
- 32530 Pesticide, fertilizer, and other agricultural chemical manufacturing
- 32600 Plastics and rubber products manufacturing
- 33100 Primary metal manufacturing
- 32520 Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing
- 32591 Soap, cleaning compound, and toilet preparations manufacturing
- 32100 Wood products manufacturing
- 32403 Other petroleum and coal products manufacturing, including motor oil, hydraulic fluid, and charcoal

**Consumer Goods**

- 33333 Digital cameras manufacturing
- 33430 Audio and video equipment manufacturing
- 31210 Beverage manufacturing
- 33200 Fabricated metal products manufacturing
- 31100 Food manufacturing
- 33700 Furniture and related products manufacturing
- 32300 Printing and related support activities
- 32591 Soap, cleaning compound, and toilet preparations manufacturing
- 31990 Textile, apparel, and leather products manufacturing
- 31220 Tobacco manufacturing
- 33990 Miscellaneous manufacturing not listed elsewhere (games, office supplies, slot machines, etc.)

**Energy and Mining**

- 33360 Engine, turbine, and power transmission equipment manufacturing
- 21200 Mining
- 33319 Mining, oil, and gas field machinery and equipment manufacturing
- 21100 Oil and gas extraction
- 32401 Petroleum refineries
- 21300 Support activities for mining, including oil and gas

**Finance, Insurance, and Real Estate**

- 52200 Finance: banking and credit intermediation
- 52400 Insurance carriers and related activities
- 53100 Real estate
- 52310 Securities, commodity contracts, and other financial investments and related activities (including funds and trusts)

**Healthcare**

- 32543 Biotechnology-based pharmaceutical and biological products (except diagnostics)
- 33451 Electromedical, electrotherapeutic, and irradiation apparatus manufacturing
- 62200 Hospitals and nursing care facilities
- 32542 In vitro diagnostic substances manufacturing
- 62150 Medical and diagnostic laboratories
- 33910 Medical equipment and supplies manufacturing
- 62110 Offices of physicians
- 32541 Pharmaceutical, medicinal, and botanical products manufacturing
- 54173 Research and development services in biotechnology
- 54174 Research and development services in physical, engineering, and life sciences (except biotechnology)
- 62199 Other ambulatory health care services (ambulance, dental, home health care)



**Information Technology - Goods and Services**

33333 Digital cameras manufacturing  
 51801 Cloud computing applications and internet based software services  
 54150 Computer systems design and related services  
 33412 Computers and peripheral equipment manufacturing, including magnetic and optical media  
 51800 Data processing, hosting, and related services  
 33500 Electrical equipment, appliances, and components manufacturing  
 45411 Electronic shopping and electronic auctions  
 33459 Measuring and control instruments manufacturing (not listed elsewhere)  
 33422 Radio, television, and wireless communication equipment manufacturing  
 33440 Semiconductor and other electronic components manufacturing  
 33321 Semiconductor machinery manufacturing  
 51120 Software publishers (except Internet)  
 33421 Telephone apparatus manufacturing including routers, modems, and gateways  
 42500 Wholesale electronic markets and agents and brokers (business to business)  
 33429 Other communication equipment manufacturing (except radio, television, and wireless communication equipment)  
 51910 Other information services, including Internet publishing, broadcasting, and web search portals

**Professional, Scientific, and Technical Services**

54180 Advertising and related services  
 54130 Architectural, engineering, and related services  
 54150 Computer systems design and related services  
 54111 Legal, accounting, tax preparation, bookkeeping and payroll services  
 54160 Management, scientific, and technical consulting services  
 54190 Professional, scientific, and technical services (not listed elsewhere)  
 54173 Research and development services in biotechnology  
 54174 Research and development services in physical, engineering, and life sciences (except biotechnology)  
 54172 Research and development services in social sciences and humanities  
 54140 Specialized design services

**Telecommunications and Utilities**

51500 Broadcasting (except Internet)  
 51740 Satellite telecommunications  
 22100 Utilities  
 56200 Waste management and remediation services  
 51710 Wired telecommunications carriers  
 51720 Wireless telecommunications carriers (except satellite)  
 51790 Other telecommunications (not listed elsewhere)

**Other Services**

72000 Accommodation and food services  
 56100 Administrative and support services  
 71000 Arts, entertainment, and recreation  
 23000 Construction  
 49200 Couriers, messengers, and express delivery services  
 53300 Lessors of nonfinancial intangible assets (including patent licensing)  
 55100 Management of companies and enterprises  
 42300 Merchant wholesalers, durable goods  
 42400 Merchant wholesalers, nondurable goods  
 51200 Motion picture and sound recording (except Internet)  
 51110 Newspaper, periodical, book, and directory publishers (except Internet)  
 53200 Rental and leasing services  
 44000 Retail trade, except electronic shopping and electronic auctions  
 62400 Social assistance services  
 21300 Support activities for mining, including oil and gas  
 48000 Transportation  
 49300 Warehousing and storage  
 81000 Other services (not listed elsewhere)



**Remarks** (Please use the space below for any explanations that may help us understand your reported data.)

We estimate this survey will take 15 hours, on average, to complete, including the time for reviewing instructions, researching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: ERD Survey Comments 0607-0912, U.S. Census Bureau, 4600 Silver Hill Road, Room 6H128, Washington, DC 20233. You may e-mail comments to [erd.survey.comments@census.gov](mailto:erd.survey.comments@census.gov). Be sure to use ERD Survey Comments 0607-0912 as the subject.

~ **Thank you for completing your 2016 Business R&D and Innovation Survey** ~

PLEASE MAKE A COPY OF THIS FORM FOR YOUR RECORDS AND RETURN THE ORIGINAL

