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47132-0001

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

FORM

BRD-1 (02-01-2018)

2017 BUSINESS RESEARCH AND DEVELOPMENT SURVEY

DUE DATE: Need help or have questions about filling out the form? Visit https://www.census.gov/ programs-surveys/brds/ information.html Here, you can access question-by-question detailed instructions and learn more about the survey. Call toll-free 1-800-772-7851, between 8:00 a.m. and 5:00 p.m. Eastern time, Monday through Friday. Please file your form electronically (see details

(Please correct any errors in this mailing address)

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

Authentication Code:

YOUR RESPONSE IS REQUIRED BY LAW. Title 13, United States Code, Sections 8(b), 131, and 182, and Title 42, United States Code, Sections 1861-76 (National Science Foundation Act of 1950, as amended) authorize this collection. 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 corner of this page. Without this approval, we could not conduct this survey.

We estimate this survey will take an average of 3.3 hours to complete. More information about this estimate and an address where you may write with comments is on the back of this form.

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

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



Table of Contents

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

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

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

Section 3: Costs Paid For by Othersp.19

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

Topics include company expenditures for property, plant, and equipment including capitalized software.

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

Section 6: Human Resourcesp.40

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

Section 7: Intellectual Property and Technology Transfer p.43

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

Changes from the 2016 survey

Questions related to product and process innovation have been removed. Questions related to capital expenditures have been moved to their own section. Skip patterns have been introduced to reduce the number of questions companies with relatively small R&D expenditures are required to answer. For a list of specific changes, go to https://www.census.gov/programs-surveys/brds/about/faq.html.

Electronic materials

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

Available materials include:

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

Filing electronically

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



What is Research and Development (R&D)?

Research and development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available knowledge. This includes: a) activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses (basic research); b) activities aimed at solving a specific problem or meeting a specific commercial objective (applied research); and c) systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes (development). R&D includes both direct costs such as salaries of researchers as well as administrative and overhead costs clearly 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 2017, if possible, or for your company's fiscal year ending between April 2017 and March 2018.

Estimates are acceptable

Please report all items to the best of your ability.

To speak with a survey specialist, call 1-800-772-7851.

Survey specialists are available Monday through Friday, from 8:00 a.m. to 5:00 p.m. Eastern time, to help with any questions you may have.



	SECTION 1 Company Information
1-1	Has your company ceased operations? ☐ Yes → Please provide the following information: (MM) (DD) (YYYY) Date your company ceased operations REPORTING INSTRUCTIONS: If your company ceased operations between April 1, 2017 and December 31, 2017, report only for the period January 1, 2017 to the date your company ceased operations. If your company ceased operations before April 1, 2017, complete Question 1-6 and return this form to the Census Bureau - you are not required to complete the rest of this survey.
1-2	Was your company a majority-owned subsidiary of a foreign company in 2017? Yes → Please provide the following information and then skip to Question 1-4: 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.Slocated 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.

1-3	Did another U.S. company other than a holding company own more than 50 percent of the voting interest in your company during 2017?
	☐ Yes → Please provide the following information:
	Name of parent company
	EIN of owner (9 digits) (MM) (DD) (YYYY)
	Date parent company purchased your company
	REPORTING INSTRUCTIONS FOR U.SOWNED COMPANIES: If your company was purchased between April 1, 2017 and December 31, 2017, report only for the period January 1, 2017 to the date of purchase. If your company was purchased before April 1, 2017, 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
1-4	Did your company own more than 50 percent of any company operations or subsidiaries outside the 50 United States and D.C. during 2017?
	☐ Yes → Include data for these operations/subsidiaries in your survey responses
	□ No
1-5	Did your company have discontinued operations in 2017?
	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

1-7		mber of worldwide emp pay period that included		
	Include: • Full- and part-time employed	oyees		Number
	Exclude: • Leased or temporary em	ployees and consultants		
1-8		oyees reported in Ques stic operations and fore		yees of
		ployees include all employerm 941, Employer's Quarterly		orted on the
		(1) Domestic operations	(2) Foreign operations	(3) Total employees
	Employees	000000		
				Total equals Question 1-7
Bu	the amount reported in Qu Ireau – you are not require	estion 1-8, column 1, was d to complete the rest of t	less than 10, return thi his survey.	s form to the Census
Busil	ness Codes			
1-9		s) listed below reflect al		
		be used to describe both codes used by other gove		
	If no business codes a that apply to your con	re printed below, pleas npany.	e write in the codes	from pages 46-47
	□ Yes			
		through codes that are escriptions from pages		
	Business code (see pages 46-47)		Description	
1-10	Please describe your c	ompany's primary busir	ness activity during 2	2017.

1-11 What was the amounduring 2017?	nt of your co	ompany's <u>w</u>	orldwide sal			
Include:				\$Bil.	Mil.	Thou.
Sales and operating r	evenues from	discontinued o	perations _			
1-12 How much of the an from domestic opera		ted in Quest	ion 1-11 wa	s attributa	ble to or o	riginated
Include:Sales and operating rincluding foreign sub		eign customers	5,			
Example: U.S. Manufac				\$Bil.	Mil.	Thou.
customers around the w	nside the Unite					
of its sales in this questi	on.		_			
1-13 How much of the 20 code listed or amend (1) Worldwide sales (2) Sales and opera	ded in Quest and operati ting revenue Wor	tion 1-9: ing revenue:	s reported in estic operated	n Question tions repo	1-11	estion 1-12
Business code	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
a						
b.						
с.						
d.						
e.						
f.						
g						
h.						
i. Less eliminations – the sales and revenues that are eliminated in order to consolidate the business codes	(
j. Total						
	Total e	equals Question	1-11	Total e	equals Questi	on 1-12

SECTION 2

R&D Paid For by Your Company

Who should answer this section?

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

What does this section cover?

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

2-1	What was the worldwide R&D expense (both direct and in 2017?	indirect) for your o	company
	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.

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://www.census.gov/programs-surveys/brds/information/brdshelp.html#q2-1

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

\$Bil.	Mil.	Thou.

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, Yes No such as through cost-sharing agreements..... Yes No b. R&D paid for by grants (government or private foundations)...... Yes No d. Technical services not an integral part of an R&D project (such as product support provided by R&D employees)..... Yes No e. Bid and proposal costs..... Yes No f. Expense your company claimed resulting from the acquisition of another company with unfinished R&D projects (in-process R&D) Yes No 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?

\$Bil.	Mil.	Thou.			

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 2017.

\$Bil.	Mil.	Thou.		

Is the amount entered in Question 2-4:

 $$0 \rightarrow \text{stop}$ Skip to Section 3 on page 19.

Less than \$1 Million → Skip to Section 2 Worksheet on page 18 and then continue with Section 3 on page 19.

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



Indi	rect R&D charges	8			
2-5	was for R&D costs through indirect ch	mount reported in Question 2-4 your company plans to recoup narges on U.S. federal government independent R&D)?	\$Bil.	Mil.	Thou.
R&D	paid for by you	r company			
2-6		orted in Question 2-4, what were the conded in Question 1-9?	osts for	each busii	ness
		that are applicable to more than one busing opportion to operating revenues is acceptable unless appropriate.			able
	Business code	I	\$Bil.	Mil.	Thou.
	a				
	b				
	c				
	d				
	e				
	f.				
	g				
	h.				
	i. Total (equals Que	estion 2-4)			
2-7	Of the amount repo	orted in Question 2-4, what costs were lowing locations?	incurred	l by your	
	R&D performed b	States (50 states and D.C.) [Include y domestic operations that is paid sidiaries]	\$Bil.	Mil.	Thou.
	b. All other countries performed by fore	s (also, Puerto Rico) [Include R&D eign subsidiaries that is paid for ations]			
	c. Total (equals Que	estion 2-4)			

2			the (1) dome / in 2017 was						
	yo	(1) Domes		o ioi cacii	(2) Foreign	type	3 01 0030	3: (3) Worldwide	
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
a.	Salarie	s, wages, and	d fringe benefi	ts					
b.	Stock-b	ased compe	nsation						
c.	Leased	employees of	or temporary s	taffing, incl	uding on-sit	e consultan	ts, working	g on R&D	
d.	Expens	ed equipmer	nt (not capitaliz	ed)					
e.	Materia	ıls and suppl	ies						
f.	Leased	facilities and	d equipment						
g.	Deprec	iation and an	nortization on	R&D prope	rty, plant, ar	nd equipme	nt		
h.	Royalti	es and licens used in your co	ing fees (includi mpany's R&D)	ing payments	made to other	s for the use o	f patents and	d other forms of	intellectual
i.	Paymer	nts to busine	ss partners for	collaborati	ve R&D (exc	lude royalties	and licensing	fees)	
j.	Purcha	sed R&D ser	vices (if your co	mpany is for	eign-owned,	include payn	nents to you	ur foreign pare	nt for R&D)
k.	All othe	er purchased	services exce	ot R&D					
I.	All othe	er costs (includ	ding administrativ	e and overhea	d costs clearl	y associated	with your c	ompany's R&D)
			C	Question co	ntinues on r	next page			

2.0 (Continued)					
2 0 (Continued)					
2-8 (Continued)					
(1)		(2)		(3)	
Domestic		Foreign		Worldwide	
\$Bil. Mil.	Thou. \$Bil.	Mil. Thou.	<u>\$Bil.</u>	Mil.	Thou.
m. Total					
III. I Otal					
Total equals Question	2-7, line a Total e	equals Question 2-7, line b	Tota	al equals Questic	on 2-4
2-9 Add 2-8, lines i a	and i for each colu	umn, and enter the res	ult here.		
	ormed by others.				
(1)		(2)		(3)	
Domestic		Foreign		Worldwide	
\$Bil. Mil.	Thou. \$Bil.	Mil. Thou.	\$Bil.	Mil.	Thou.
2-10 Subtract 2-9 from	m 2 0 line m for	and column and anta	# 4 bo #00!!	le hava	
	ormed by your co	each column and ente	r the resu	it nere.	
	ornieu by your co				
(1) Domestic		(2) Foreign		(3) Worldwide	
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φbii. Iviii.	Tilou. yoli.	Will.	ΨΒΠ.	IVIII.	Tilou.
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2-11 Of the amount re	enorted in Ouestic				
		on 2-10, column 2, hov			
in the following	locations? For full li	ist of countries in each region s	see Question		
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	2-11 (Continue	d)						
ľ		\$Bil.	Mil.	Thou.		\$Bil.	Mil.	Thou.
	Spain				New Zealand			
	Sweden				Singapore			
	Switzerland				South Korea			
	Turkey				Taiwan			
	United Kingdom				Thailand			
	Other Europe				Other Asia/ Pacific			
	Latin America/ Other Western Hemisphere	\$Bil.	Mil.	Thou.	Middle East	\$Bil.	Mil.	Thou.
	Argentina				Israel			
	Brazil				Other Middle East			
	Chile					¢D:I	D.4:1	Th
					Africa	\$Bil.	Mil.	Thou.
	Mexico				South Africa			
	Other Latin America/OWH				Other Africa			
	Asia and Pacific	\$Bil.	Mil.	Thou.	Total (equals Question 2-10,			
	Australia				column 2)			
	China							
	Hong Kong							
	India							
	Indonesia							
	Japan							
	Malaysia							

each state		_			¢D:I	P.4:1	TL
	\$Bil.	Mil.	Thou.		\$Bil.	Mil.	Thou.
Alabama				Maine			
Alaska				Maryland			
Arizona				Massachusetts			
Arkansas				Michigan			
California				Minnesota			
Colorado				Mississippi			
Connecticut				Missouri			
Delaware				Montana			
District of Columbia				Nebraska			
Florida				Nevada			
Georgia				New Hampshire			
Hawaii				New Jersey			
Idaho				New Mexico			
Illinois				New York			
Indiana				North Carolina			
lowa				North Dakota			
Kansas				Ohio			
Kentucky				Oklahoma			
Louisiana				Oregon			

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2-12 (Continued)				
\$Bil. Mil. Thou.	 	\$Bil.	Mil.	Thou.
Pennsylvania	Vermont			
Rhode Island	Virginia			
South Carolina	Washington			
South Dakota	West Virginia			
Tennessee	Wisconsin			
Texas	Wyoming			
Utah	Total (equals Question 2-10, column 1)			
2-13 At what domestic location did your co R&D in 2017? Address 1	mpany pertorm the	largest do	oliar amol	int of
Address 2				
City		State	ZIP	
000000000000				
2-14 How much of the amount reported in C column 1, was from the location identic Question 2-13?		\$Bil.	Mil.	Thou.

Address 2		
City		State ZIP
How much of the	amount reported in Question 2-10,	\$Bil. Mil. Th
Question 2-15?	om the location identified in	
column 1, how m	uch was for each business code repo	rted in Question 2-6?
		(1) Domestic R&D performe by your company
Business code		\$Bil. Mil. Th
a		
ŭ.		
b		
b		
c		
c		
c. d. e.		
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c. d. d. f.		
c. d. e. g.		

2-18 How much of the domestic R&D performed by your company reported in Question 2-10, column 1, 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 2017, 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. 2-19 How much of the foreign R&D performed by your company reported in Question 2-10, column 2, was paid for by your company's domestic subsidiaries through inter-company transactions? Example: Company Z owns a subsidiary in France. In order to complete the development of a product in 2017, 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. R&D performed by others 2-20 How much of the domestic R&D performed by others reported in Question 2-9, column 1, 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. state and local government agencies or laboratories. f. Universities, colleges, and academic researchers (including principal investigators) located inside the United States. h. All other organizations inside the United States. i. Total domestic R&D paid for by your company that was performed by others (equals Question 2-9, equals Quest	R&D transactions between legal entities under con	nmon ownership
complete the development of a product in 2017, 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. 2-19 How much of the foreign R&D performed by your company reported in Question 2-10, column 2, was paid for by your company's domestic subsidiaries through inter-company transactions? Example: Company Z owns a subsidiary in France. In order to complete the development of a product in 2017, 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. R&D performed by others 2-20 How much of the domestic R&D performed by others reported in Question 2-9, column 1, 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. state and local 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 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 2-9,	2-10, column 1, was paid for by your company's foreig	
2-10, column 2, was paid for by your company's domestic subsidiaries through inter-company transactions? Example: Company Z owns a subsidiary in France. In order to complete the development of a product in 2017, 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. R&D performed by others 2-20 How much of the domestic R&D performed by others reported in Question 2-9, column 1, 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 f. Universities, colleges, and academic researchers (including principal investigators) located inside the United States g. All other organizations outside 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 2-9,	complete the development of a product in 2017, 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	\$Bil. Mil. Thou.
complete the development of a product in 2017, 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. R&D performed by others 2-20 How much of the domestic R&D performed by others reported in Question 2-9, column 1, 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. f. Universities, colleges, and academic researchers (including principal investigators) located inside the United States. g. All other organizations outside the United States. i. Total domestic R&D paid for by your company that was performed by others (equals Question 2-9,	2-10, column 2, was paid for by your company's dome	
2-20 How much of the domestic R&D performed by others reported in Question 2-9, column 1, was performed by the following types of organizations? SBil. Mil. Thou.	complete the development of a product in 2017, 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	\$Bil. Mil. Thou.
reported in Question 2-9, column 1, was performed by the following types of organizations? a. Companies located inside the United States	R&D performed by others	
b. Your company's foreign parent (if you are owned by a foreign parent). c. Other companies located outside the United States	reported in Question 2-9, column 1, was performed by	\$Bil. Mil. Thou.
c. Other companies located <u>outside</u> the United States	a. Companies located <u>inside</u> the United States	<u>UUUUUU</u>
d. U.S. federal government agencies or laboratories		00 000 000
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	c. Other companies located <u>outside</u> the United States	
f. Universities, colleges, and academic researchers (including principal investigators) located inside the United States	d. U.S. federal government agencies or laboratories	
principal investigators) located <u>inside</u> the United States g. All other organizations <u>inside</u> the United States	e. U.S. state and local government agencies or laboratories.	
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 2-9,	g. All other organizations <u>inside</u> the United States	
was performed by others (equals Question 2-9,	h. All other organizations outside the United States	<u>UUUUUU</u>
Column 1)		00 000 000

Activities with academia	
2-21 In addition to the amount reported in Question 2-20, line monetary gifts to U.S. universities or colleges in 2017 that Yes → Continue with Question 2-22	
No → Skip to Question 2-23	
2-22 What was the amount of monetary gifts made by your company to U.S. universities or colleges in 2017 that was for R&D?	\$Bil. Mil. Thou.
Projected R&D for 2018	
2-23 What are your company's projected 2018 costs for (1) do (3) worldwide R&D paid for by your company?	omestic, (2) foreign, and
NOTE: These amounts are the 2018 projections for the a reported in Question 2-8, line m.	nmounts
(1) Domestic \$Bil. Mil. Thou. \$Bil. Mil. Thou.	(3) Worldwide \$Bil. Mil. Thou.
2-24 How much of the amount reported in Question 2-23, column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D?	Domestic \$Bil. Mil. Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for	
column 1, is for projected purchased R&D services and projected payments to business partners for	
column 1, is for projected purchased R&D services and projected payments to business partners for	
column 1, is for projected purchased R&D services and projected payments to business partners for	
column 1, is for projected purchased R&D services and projected payments to business partners for	
column 1, is for projected purchased R&D services and projected payments to business partners for	
column 1, is for projected purchased R&D services and projected payments to business partners for	
column 1, is for projected purchased R&D services and projected payments to business partners for	

		_	_
	SECTION 2 WORKSHEET		
	Complete if amount reported in Question 2-4 is less that	n \$1 Milli	ion
1	Of the total R&D paid for by your company reported in Question 2 were incurred in the following locations?	-4, what co	osts
	a. Domestic United States (50 states and D.C.) [Include R&D performed by domestic operations that is paid for by foreign subsidiaries]	\$Mil.	Thou.
	b. All other countries (also, Puerto Rico) [Include R&D performed by foreign subsidiaries that is paid for by domestic operations]		
	c. Total		
2	How much of the amount reported in Question 1 line a was far as	ah af tha f	ollowing
	How much of the amount reported in Question 1, line a was for eatypes of costs?		
		\$Mil.	Thou.
	a. Salaries, wages, and fringe benefits		
	b. Payments to business partners for collaborative R&D		
	c. Purchased R&D services		
	d. All other costs		
	e. Total (equals Question 1, line a)		
3	Add Question 2, lines a and d, and enter the result here. This is the domestic R&D paid for and performed by your company in 2017.	\$Mil.	Thou.
4	Of the domestic R&D paid for and performed by your company rep Question 3, how much was for the following categories?	orted in	
	Basic research–activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses	\$Mil.	Thou.
	b. Applied research—activities aimed at solving a specific problem or meeting a specific commercial objective		
	c. <u>Development</u> -systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes		
	d. Total (equals Question 3)		

SECTION 3

Costs Paid For by Others

Who should answer this section?

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

What does this section cover?

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

What were your company's <u>worldwide costs</u> (both direct he following that were funded, paid for, or reimbursed bour company?			
Exclude: Costs that were paid for by your company, such as those reported i Payments in excess of the actual cost of the work performed (such			
	\$Bil.	Mil.	Thou.
. R&D reimbursed by your company's foreign parent (if you are owned by a foreign parent)			
Collaborative R&D reimbursed by business partners, such as through cost-sharing agreements			
. R&D paid for by grants (government or private foundations)			
I. Defense R&D goods or services provided as a prime or as a sub, to the government and/or government contractors			
 Exclude: Costs for projects that have achieved technical feasibility, such as low-rate initial production. Additional guidance is available online at https://www.census.gov/programs-surveys/brds/information.html 			
. Medical clinical trial Phase I-III services provided to others not owned by your company (include pass-through costs)			
Medical R&D services, other than clinical trials, provided to others not owned by your company			
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 			
Prototype development, production, and testing for customer's products prior to their introduction to the market (excluding defense-related prototyping reported in line d)			
All other R&D services provided to the Federal Government or to others not owned by your company			
Total			

3-1	(Continued)							
	The amount entered in Q Is this amount:	uestion 3-1, lin	e j is the tot	al R&D paid	d for by ot	hers in 2017	7.	
	\$0 → srop If Question otherwise skip to S	2-4 was also ection 4 on p	s \$0, then y page 34.	ou have c	ompleted	l this surve	у,	
	Less than \$1 Million → Skip to Section 3 Worksheet on page 33 and then continue with Section 4 on page 34.							
	\$1 Million or greater -	. •		n 2-2				
	\$1 Million of greater	7 Continue w	in Questio	лг 5- 2 .				
R&C) paid for by others							
3-2	Of the amount reported by your company in the			what cost			T1	
		_			\$Bil.	Mil.	Thou.	
	a. Domestic United States	(50 states and	d D.C.)					
	b. All other countries (also	o, Puerto Rico)						
	c. Total (equals Question	3-1 line i)						
	or retain (equale ducelle).	0 1, mio j, 1 1 1						
3-3	How much of the (1) do in 2017 was for each of				vide R&D	paid for b	y others	
			ig types of	CUSIS:				
	(1) Domestic		(2) Foreign	<u>costs</u> :		(3) Worldwide		
	(1) Domestic \$Bil. Mil. Thou.	<u>\$Bil.</u>	(2)	Thou.	<u>\$Bil.</u>		Thou.	
	(1) Domestic	<u>\$Bil.</u>	(2) Foreign		<u>\$Bil.</u>	Worldwide	Thou.	
a. Sal	(1) Domestic \$Bil. Mil. Thou. aries, wages, and fringe bea	<u>\$Bil.</u>	(2) Foreign		\$Bil.	Worldwide	Thou.	
a. Sal	(1) Domestic \$Bil. Mil. Thou.	<u>\$Bil.</u>	(2) Foreign		\$Bil.	Worldwide	Thou.	
a. Sal	(1) Domestic \$Bil. Mil. Thou. aries, wages, and fringe beauties, wages are compensation	\$Bil. nefits	(2) Foreign Mil.	Thou.		Worldwide Mil.	Thou.	
a. Sal	(1) Domestic \$Bil. Mil. Thou. aries, wages, and fringe bea	\$Bil. nefits	(2) Foreign Mil.	Thou.		Worldwide Mil.	Thou.	
b. Sto	pock-based compensation (1) Domestic Mil. Thou. Cock-based compensation ased employees or temporal	\$Bil. nefits ry staffing, incl	(2) Foreign Mil.	Thou.		Worldwide Mil.	Thou.	
b. Sto	(1) Domestic \$Bil. Mil. Thou. aries, wages, and fringe beauties, wages are compensation	\$Bil. nefits ry staffing, incl	(2) Foreign Mil.	Thou.		Worldwide Mil.	Thou.	
b. Sto	pock-based compensation (1) Domestic Mil. Thou. Cock-based compensation ased employees or temporal	\$Bil. nefits ry staffing, incl	(2) Foreign Mil.	Thou.		Worldwide Mil.	Thou.	
b. Sto	pock-based compensation (1) Domestic Mil. Thou. Cock-based compensation ased employees or temporal	\$Bil. nefits ry staffing, incl	(2) Foreign Mil.	Thou.		Worldwide Mil.	Thou.	
b. Sto	pock-based compensation ased employees or temporary poensed equipment (not capit	\$Bil. nefits ry staffing, incl	(2) Foreign Mil.	Thou.		Worldwide Mil.		
a. Sal	pock-based compensation ased employees or temporary poensed equipment (not capit	\$Bil. nefits ry staffing, incl talized)	(2) Foreign Mil.	Thou.		Worldwide Mil.		
a. Sal	pensed equipment (not capit	\$Bil. nefits ry staffing, incl talized)	(2) Foreign Mil.	Thou.		Worldwide Mil.		



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(Cont	inued) (1)			(2)			(3)	
\$Bil.	Domestic Mil.	Thou.	\$Bil.	Foreign Mil.	Thou.	\$Bil.	Worldwide Mil.	Thou.
g. Depreciation							<u></u>	<u> </u>
h. Royalties a property used	and licensing d in your compa	tees (including's R&D)	ng payments	made to other	s for the use o	of patents an	d other forms o	f intellectual
i. Payments	to business p	partners for	collaborati	ive R&D (exc	lude royalties	and licensin	a fees)	
				TO THE (ONE			g 1000,	
j. Purchased	R&D service	s (if your cor	npany is fore	eign-owned, i	nclude payme	ents to your	foreign parent	for R&D)
k. All other p	urchased ser	vices excep	ot R&D					
I. All other c	osts (including	administrative	e and overhea	ad costs clearl	y associated	with your o	company's R&I)
m. Total								
Total ea	uals Question	3-2 line a	Total equ	als Question	3-2 line h	Total e	quals Question	3-1 line i
	adio Quodion	0 2, mio u	rotar oqu	aro Question	0 2, 1110 5	70147 00	quaio Quodiion	<i>0 1, 11110 j</i>
	3-3, lines i a s R&D perfe						ugh R&D co	sts).
	(1) Domestic			(2) Foreign			(3) Worldwide	
\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
	act 3-4 fron							
	(1) Domestic		, sa. cc	(2) Foreign		,	(3) Worldwide	
\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
rm BRD-1								
				21		II∎II		

21

in the follo	owing lo	ocations?	or full list of co	, column 2, how m			
ntips://www.ce	\$Bil.	programs-surv Mil.	Thou.	ation/brdshelp.html#q3-6.	\$Bil.	Mil.	Thou.
Canada				Switzerland			
Puerto Rico				Turkey			
Europe	\$Bil.	Mil.	Thou.	United Kingdom			
Austria				Other Europe			
Belgium				Latin America/ Other Western	\$Bil.	Mil.	Thou.
Czech Rep				Hemisphere			
Denmark				Argentina			
Finland				Brazil			
France				Chile			
ridiice				Mexico			
Germany				Other Latin America/OWH			
Hungary				Asia and Pacific	\$Bil.	Mil.	Thou.
Ireland				Australia			
Italy				China			
Luxembourg				Hong Kong			
Netherlands				India			
Norway				Indonesia			
Poland				Japan			
Russia				Malaysia			
Spain				New Zealand			
Sweden				Singapore			
		Qu	estion contin	ues on next page			

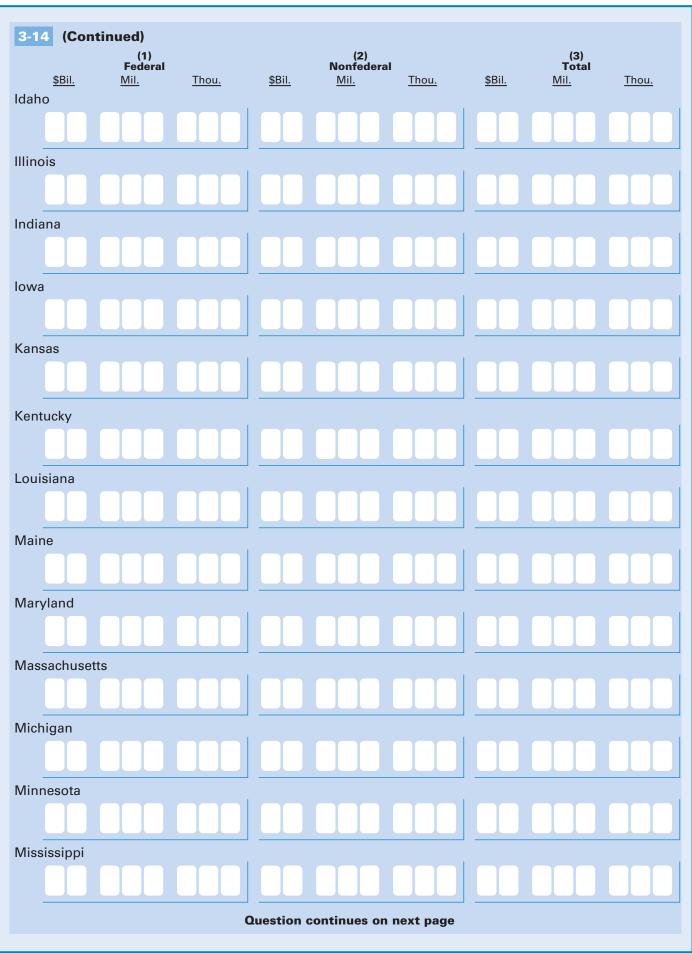
-6 (Continue	d) \$Bil.	Mil.	Thou.	Africa	\$Bil.	Mil.	Thou.
South Korea				South Africa			
aiwan				Other Africa			
hailand				Total (equals Question 3-5, column 2)			
other Asia/ acific				001d11111 2)			
Middle East	\$Bil.	Mil.	Thou.				
srael							
other Niddle East							
others rep amended Allocate R Allocation i	orted in in Quest &D that in proportion	Question ion 1-9?	3-5, columi	med by your composite 1, was for each be an one business code s acceptable unless sor	usiness on a rea	code liste	ed or
	ro annroni			- acceptante attroce ec.		ativo anobatic	J11
	re appropr				\$Bil.	Mil.	Thou.
		riate.					
Busine a.		riate.					
Busine		riate.					
Busine a.		riate.					
b.		riate.					
a. b.		riate.					
b. C.		riate.					
b. C.		riate.					
a. b. c. d. e.		riate.					
b. c. d.		riate.					
a. b. c. d. e.		riate.					
a. b. c. d. e. f.	ss code	riate.					

How much of the amount reported in Question 3-5, colum of the following?	n 1, was	paid for	by each
If your company is a subcontractor or subgrantee, report the or	iginal sou	rce of fund	ds.
a subcontractor on a contract with the U.S. Dept. of Defense. Even thou	ugh Sub Ir	ıc. is workin	g directly
	\$Bil.	Mil.	Thou.
a. Other companies located <u>inside</u> the United States			
b. Your company's foreign parent (if you are owned by a foreign parent)			
c. Other companies located <u>outside</u> the United States			
d. U.S. federal government agencies or laboratories			
a IIS state government agencies or laboratories			
e. 0.5. state government agencies of laboratories			
f. Fausium management anamaisa ay labayatayisa			
g. Universities, colleges, and academic researchers (including principal investigators) located <u>inside</u> the United States			
h. Universities and colleges located <u>outside</u> the United States			
i. All other organizations <u>inside</u> the United States			
i All other ergonizations sutside the United States			
j. All other organizations <u>outside</u> the Officed States			
k Total (equals Question 3-5, column 1)			
k. Iotal (equals Question 3-5, column 1)			
Add Question 3-8 lines a b and c and enter the	\$Bil.	Mil.	Thou.
result here. This is the domestic R&D performed by			
your company that was paid for by other companies.			
	If your company is a subcontractor or subgrantee, report the or Example: Company Sub Inc. performs custom software development in a subcontractor on a contract with the U.S. Dept. of Defense. Even thou for the defense company, it reports the cost of this development in line was the original source of funds. a. Other 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 government agencies or laboratories. f. Foreign government agencies or laboratories. g. Universities, colleges, and academic researchers (including principal investigators) located inside the United States. h. Universities and colleges located outside the United States.	If your company is a subcontractor or subgrantee, report the original sour Example: Company Sub Inc. performs custom software development for a large a subcontractor on a contract with the U.S. Dept. of Defense. Even though Sub Infor the defense company, it reports the cost of this development in line d becaus was the original source of funds. \$\frac{\\$\\$\\$\}\\$\ \$\] a. Other companies located \(\frac{\inside}{\) the United States. b. Your company's foreign parent (if you are owned by a foreign parent). c. Other companies located \(\frac{\text{outside}}{\) the United States. d. U.S. federal government agencies or laboratories. e. U.S. state government agencies or laboratories g. Universities, colleges, and academic researchers (including principal investigators) located \(\frac{\text{inside}}{\text{inside}}\) the United States. h. Universities and colleges located \(\frac{\text{outside}}{\text{inside}}\) the United States. i. All other organizations \(\frac{\text{inside}}{\text{inside}}\) the United States j. All other organizations \(\frac{\text{outside}}{\text{inside}}\) the United States k. \(\text{Total}\) (equals Question 3-5, column 1).	If your company is a subcontractor or subgrantee, report the original source of fund Example: Company Sub Inc. performs custom software development for a large defense cor a subcontractor on a contract with the U.S. Dept. of Defense. Even though Sub Inc. is workin for the defense company, it reports the cost of this development in line d because the Dept. was the original source of funds. \$\frac{\text{\$Bil.}}{\text{\$Mil.}}\$\$ a. Other 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 government agencies or laboratories g. Universities, colleges, and academic researchers (including principal investigators) located inside the United States h. Universities and colleges located outside the United States i. All other organizations inside the United States j. All other organizations outside the United States k. Total (equals Question 3-5, column 1).

a. 3 2 5 4 3 Biotechnology-based pharmaceutical and biological products (except diagnostics)	a. 3 2 5 4 3 Biotechnology-based pharmaceutical and biological products (except diagnostics). b. 3 2 5 4 1 Pharmaceutical, medicinal, and botanical products manufacturing c. 3 3 5 0 0 Electrical equipment, appliances, and components manufacturing d. 3 3 4 4 0 Semiconductor and other electronic components manufacturing e. 3 3 9 1 0 Medical equipment and supplies manufacturing f. 3 3 6 1 0 Motor vehicles manufacturing	a. 3 2 5 4 3 Biotechnology-based pharmaceutical and biological products (except diagnostics). b. 3 2 5 4 1 Pharmaceutical, medicinal, and botanical products manufacturing	a. 3 2 5 4 3 Biotechnology-based pharmaceutical and biological products (except diagnostics). b. 3 2 5 4 1 Pharmaceutical, medicinal, and botanical products manufacturing	a. 3 2 5 4 3 Biotechnology-based pharmaceutical and biological products (except diagnostics). b. 3 2 5 4 1 Pharmaceutical, medicinal, and botanical products manufacturing	a. 3 2 5 4 3 Biotechnology-based pharmaceutical and biological products (except diagnostics). b. 3 2 5 4 1 Pharmaceutical, medicinal, and botanical products manufacturing	a. 3 2 5 4 3 Biotechnology-based pharmaceutical and biological products (except diagnostics). b. 3 2 5 4 1 Pharmaceutical, medicinal, and botanical products manufacturing c. 3 3 5 0 0 Electrical equipment, appliances, and components manufacturing d. 3 3 4 4 0 Semiconductor and other electronic components manufacturing e. 3 3 9 1 0 Medical equipment and supplies manufacturing f. 3 3 6 1 0 Motor vehicles manufacturing
b. 3 2 3 7 1 botanical products manufacturing	b. 3 2 3 7 1 botanical products manufacturing	b. 3 2 3 7 1 botanical products manufacturing	b. 3 2 3 7 1 botanical products manufacturing	b. 3 2 3 7 1 botanical products manufacturing	b. 3 2 3 7 1 botanical products manufacturing	b. 3 2 3 7 1 botanical products manufacturing
c. 3 3 4 4 0 Semiconductor and other electronic components manufacturing	c. 3 3 4 4 0 Semiconductor and other electronic components manufacturing e. 3 3 9 1 0 Medical equipment and supplies manufacturing f. 3 3 6 1 0 Motor vehicles manufacturing	c. 3 3 4 4 0 Semiconductor and other electronic components manufacturing e. 3 3 9 1 0 Medical equipment and supplies manufacturing f. 3 3 6 1 0 Motor vehicles manufacturing	c. 3 3 4 4 0 Semiconductor and other electronic components manufacturing e. 3 3 9 1 0 Medical equipment and supplies manufacturing f. 3 3 6 1 0 Motor vehicles manufacturing	c. 3 3 4 4 0 Semiconductor and other electronic components manufacturing e. 3 3 9 1 0 Medical equipment and supplies manufacturing f. 3 3 6 1 0 Motor vehicles manufacturing	c. 3 3 4 4 0 Semiconductor and other electronic components manufacturing e. 3 3 9 1 0 Medical equipment and supplies manufacturing f. 3 3 6 1 0 Motor vehicles manufacturing	c. 3 3 4 4 0 Semiconductor and other electronic components manufacturing e. 3 3 9 1 0 Medical equipment and supplies manufacturing f. 3 3 6 1 0 Motor vehicles manufacturing
d. 3 3 4 4 0 components manufacturing	d. 3 3 4 4 0 components manufacturing	d. 3 3 4 4 0 components manufacturing	d. 3 3 4 4 0 components manufacturing	d. 3 3 4 4 0 components manufacturing	d. 3 3 4 4 0 components manufacturing	d. 3 3 4 4 0 components manufacturing
e. 3 3 7 7 0 manufacturing	e. 3 3 7 7 0 manufacturing	e. 3 3 7 7 0 manufacturing	e. 3 3 7 7 0 manufacturing	e. 3 3 7 7 0 manufacturing	e. 3 3 7 7 0 manufacturing	e. 3 3 7 7 0 manufacturing
g. O O O O O O O O O O O O O O O O O O O	g	g	g	g	g	g
h. 00000 00 000 00 00 00 00 00 00 00	h. 00000 00 000 0	h. 00000 00 000 0	h. 00000 00 000 0	h. 00000 00 000 0	h. 00000 00 000 0	h. 00000 00 000 0
i. 00000	i. 00000	i. 00000	i. 00000	i. 00000	i. 00000	i. 00000
j. Total (equals Question 3-9)	j. Total (equals Question 3-9)	j. Total (equals Question 3-9)	j. Total (equals Question 3-9)	j. Total (equals Question 3-9)	j. Total (equals Question 3-9)	j. Total (equals Question 3-9)

3-11 How much of the amount reported in Question 3-8, line d was paid for by the following agencies?	\$Bil.	Mil.	Thou.
a. Department of Defense			
b. Department of Energy			
c. National Aeronautics and Space Administration			
d. National Institutes of Health			
e. Department of Homeland Security			
f. Department of Transportation			
g. Environmental Protection Agency			
h. National Science Foundation			
i. All other, please specify:			
j. Total (equals Question 3-8, line d)			
3-12 How much of the amount reported in Question 3-8, line d was performed under the following types of agreements?			
	\$Bil.	Mil.	Thou.
a. Contracts (include direct or prime contracts and subcontracts)			
b. Grants, reimbursements, and all other agreements			
c. Total (equals Question 3-8, line d)			
3-13 Subtract Question 3-8, line d, from Question 3-8, line k, and enter the result here. This is the domestic R&D	\$Bil.	Mil.	Thou.
performed by your company that was paid for by nonfederal sources.			

3-14 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 3-8, line d (2) Domestic R&D paid for by nonfederal sources reported in Question 3-13 (3) Total domestic R&D performed by your company that was paid for by others reported in Question 3-5, column 1										
	(1) Federal			(2) Nonfedera			(3) Total			
\$Bil. Alabama	Mil.	Thou.	\$Bil.	<u>Mil.</u>	<u>Thou.</u>	<u>\$Bil.</u>	Mil.	Thou.		
Alaska										
Arizona										
Arkansas										
California										
Colorado										
Connecticut										
Delaware										
Delaware										
District of Col	lumbia									
Florida										
Georgia										
Hawaii										
		0	uestion co	ontinues on	next page					



3-14 (Con	tinued)							
	(1) Federal			(2) Nonfederal			(3) Total	
\$Bil. Missouri	Mil.	Thou.	<u>\$Bil.</u>	Mil.	<u>Thou.</u>	\$Bil.	Mil.	Thou.
Montana								
Nebraska								
Nevada								
New Hamps	hire							
New Jersey								
New Mexico								
New York								
North Caroli								
North Carolin								
North Dakota	9							
Ohio								
Oklahoma								
Oregon								
		Qı	uestion c	ontinues on n	ext page			

2 44 /Canti								
3-14 (Conti	nued) (1) Federal			(2) Nonfederal			(3) Total	
<u>\$Bil.</u>	Mil.	Thou.	<u>\$Bil.</u>	Mil.	Thou.	\$Bil.	Mil.	Thou.
Pennsylvania								
Rhode Island								
South Carolina	ı							
South Dakota								
Tennessee								
Texas								
Toxas								
Litale								
Utah								
Vermont								
Virginia								
Washington								
West Virginia								
Wisconsin								
Wyoming								
		Q	uestion co	ontinues on n	ext page			
					, ,			

3-14 (Con	tinued)							
(33.1	(1)			(2)			(3)	
	Federal			Nonfederal			Total	
<u>\$Bil.</u>	Mil.	<u>Thou.</u>	<u>\$Bil.</u>	Mil.	Thou.	<u>\$Bil.</u>	Mil.	<u>Thou.</u>
Total								
Total e	quals Question	3-8, line d	Total	equals Questic	on 3-13	Total equal	s Question 3	R-5, column 1
3-15 At w	hat <u>domesti</u>	ic location	did your	company p	erform th	e largest o	dollar amo	unt of
R&D	that was pa	aid for by o	thers in	2017?				
Addr	ess 1							
	\mathbf{I}			T	\mathcal{X}			
Addr	ess 2							
City						State	ZIP	
Oity								
3-16 How						\$Bil.	Mil.	Thou.
	much of the	e amount r	eported i	n Question	3-5.			
colu	mn 1, was f			in Question entified in	3-5,			
colu					3-5,			
colu	mn 1, was f				3-5,			
colu Ques	mn 1, was fi stion 3-15?	rom the loc	eation ide	entified in		ne second	argest do	llar
Columnia Ques	mn 1, was f	rom the loc	eation ide	entified in company p	erform th	ne second	argest do	llar
Columnia Ques	mn 1, was fi stion 3-15? hat <u>domesti</u> unt of R&D	rom the loc	eation ide	entified in company p	erform th	ne second l	argest do	llar
Colui Ques 3-17 At w	mn 1, was fi stion 3-15? hat <u>domesti</u> unt of R&D	rom the loc	eation ide	entified in company p	erform th	ne second l	argest do	llar
Colui Ques 3-17 At w	mn 1, was fi stion 3-15? hat <u>domesti</u> unt of R&D	rom the loc	eation ide	entified in company p	erform th	ne second l	argest do	llar
3-17 At wamo	mn 1, was for stion 3-15? That domestion of R&D ease 1	rom the loc	eation ide	entified in company p	erform th	ne second l	argest do	llar
Colui Ques 3-17 At w	mn 1, was for stion 3-15? That domestion of R&D ease 1	rom the loc	eation ide	entified in company p	erform th	ne second	argest do	llar
3-17 At wamo	mn 1, was for stion 3-15? That domestion of R&D ease 1	rom the loc	eation ide	entified in company p	erform th	ne second l	argest do	llar
3-17 At wamoo Addr	mn 1, was for stion 3-15? That domestion of R&D ease 1	rom the loc	eation ide	entified in company p	erform th			llar
3-17 At wamo	mn 1, was for stion 3-15? That domestion of R&D ease 1	rom the loc	eation ide	entified in company p	erform th	ne second l		llar
3-17 At wamoo Addr	mn 1, was for stion 3-15? That domestion of R&D ease 1	rom the loc	eation ide	entified in company p	erform th			
3-17 At wamoo Addr	mn 1, was for stion 3-15? That domestion of R&D ease 1	rom the loc	eation ide	entified in company p	erform th			Ilar
3-17 At wamoo Addr	mn 1, was for stion 3-15? That domestion of R&D ease 1	rom the loc	eation ide	entified in company p	erform th			
3-17 At wamoo Addr	mn 1, was fistion 3-15? That domestion of R&D ess 1 ess 2	ic location that was pa	did your	company p	erform th			Ilar
3-17 At wamoo Addr City 3-18 How	mn 1, was firstion 3-15? That domestion of R&D That domestion of R&D That domestion of R&D That domestion of R&D That domestion of the R&D	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	
3-17 At wamoo Addr City 3-18 How colu	mn 1, was fistion 3-15? That domestion of R&D ess 1 ess 2	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	
3-17 At wamoo Addr City 3-18 How colu	mn 1, was firstion 3-15? That domestion of R&D The stion of R&D The stion of the	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	
3-17 At wamoo Addr City 3-18 How colu	mn 1, was firstion 3-15? That domestion of R&D The stion of R&D The stion of the	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	
3-17 At wamoo Addr City 3-18 How colu	mn 1, was firstion 3-15? That domestion of R&D The stion of R&D The stion of the	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	
3-17 At wamoo Addr City 3-18 How colu	mn 1, was firstion 3-15? That domestion of R&D The stion of R&D The stion of the	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	
3-17 At wamoo Addr City 3-18 How colu	mn 1, was firstion 3-15? That domestion of R&D The stion of R&D The stion of the	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	
3-17 At wamoo Addr City 3-18 How colu	mn 1, was firstion 3-15? That domestion of R&D The stion of R&D The stion of the	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	
3-17 At wamoo Addr City 3-18 How colu	mn 1, was firstion 3-15? That domestion of R&D The stion of R&D The stion of the	ic location that was pa	did your aid for by	company py others in 2	erform th	State	ZIP	

R&D performed by others			
3-19 Of the domestic R&D performed by others reported in Question 3-4, column 1, how much was paid for by U.S. federal government agencies or laboratories?	\$Bil.	Mil.	Thou.
Projected R&D paid for by others in 2018			
3-20 What are your company's projected 2018 costs for R&D that will be paid for by others?	\$Bil.	Mil.	Thou.
NOTE: This amount is the 2018 projection for what is reported in Question 3-1, line j.			
3-21 How much of the projected costs in 2018 for R&D that will be paid for by others reported in Question 3-20 will be performed by your company in the United States?	\$Bil.	Mil.	Thou.
NOTE: This amount is the 2018 projection for what is reported in Question 3-5, column 1.			
3-22 How much of the projected costs in 2018 for domestic R&D performed by your company reported in Question 3-21 will be paid for by the U.S. federal government?	\$Bil.	Mil.	Thou.
NOTE: This amount is the 2018 projection for what is reported in Question 3-8, line d.			

SECTION 3 WORKSHEET

Co	mplete if amount reported in Question 3-1, line j is less	than \$1	Million
1	Of the total R&D paid for by others reported in Question 3-1, line just incurred in the following locations?	j , what co \$Mil.	sts Thou.
	a. Domestic United States (50 states and D.C.)		
	b. All other countries (also, Puerto Rico)		
	c. Total		
2	How much of the amount reported in Question 1, line a, was for eafollowing types of costs?		
	a. Salaries, wages, and fringe benefits	\$Mil.	Thou.
	b. Payments to business partners for collaborative R&D		
	c. Purchased R&D services		
	d. All other costs		
	e. Total (equals Question 1, line a)		
3	Add Question 2, lines a and d, and enter the result here. This is the domestic R&D performed by your company that was paid for by others in 2017.	\$Mil.	Thou.
4	Of the domestic R&D performed by your company that was paid for reported in Question 3, how much was for the following categories		ers
	Basic research—activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses	\$Mil.	Thou.
	b. Applied research—activities aimed at solving a specific problem or meeting a specific commercial objective		
	c. <u>Development</u> -systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes		
	d. Total (equals Question 3)		

	SECTION 4			
	Capital Expenditures			
Person	hould answer this section? Is familiar with your company's accounting for capital expenditures to those expenditures should complete this section.	s and with	access to re	ecords
This se	does this section cover? ection requests financial information about your company's capital D operations.	expenditur	es, specific	ally those
4-1	What was the amount of your company's capital expenditures in the domestic United States in 2017?	\$Bil.	Mil.	Thou.
4-2	How much of the amount reported in Question 4-1 was for R&D operations?	\$Bil.	Mil.	Thou.
4-3	How much of the amount reported in Question 4-2 was for the following?	\$Bil.	Mil.	Thou.
	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 4-2)			
4-4	Was any of the amount reported in Question 4-2 funded, paid for, or reimbursed by others not owned by your company (including your foreign parent)?		Yes	□ No

SECTION 5

Management and Strategy of R&D

Who should answer this section?

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

What does this section cover?

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

1

If the amount reported in Question 2-4 was less than \$1 Million, skip to Question 5-15 on page 37.

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

Example: Company A manufactures laptop computers. In 2017 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 2017, Company A reports this R&D in this question.



Thou.

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

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

Mil.

\$Bil.

- How much of the amount reported in Question 5-2 was for the following categories?
 - a. Research-planned, systematic pursuit of new knowledge or understanding.....
- 00 000 000
- c. **Total** (equals Question 5-2).....
- If you reported any research in Question 5-3, line a, how much of that research was for the following categories?
 - a. Applied research—activities aimed at solving a specific problem or meeting a specific commercial objective.....

φυπ.	IVIII.	mou.

		_	

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 5-5 to 5-9.	
5-5	What percentage of the amount reported in Question 5-2 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 2017, 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.
5-6	What percentage of the amount reported in Question 5-2 had environmental protection applications, including pollution abatement?
5-7	What percentage of the amount reported in Question 5-2 had defense applications, including military applications and homeland security-related R&D?
5-8	What percentage of the amount reported in Question 5-2 had health or medical applications?
5-9	What percentage of the amount reported in Question 5-2 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 5-10 to 5-12.	
5-10	What percentage of the amount reported in Question 5-2 was for software products or software embedded in other projects or products?
5-11	What percentage of the amount reported in Question 5-2 was for biotechnology? For list-based definition see Question by Question Guidance at https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-11
	Biotechnology – The application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services.
5-12	What percentage of the amount reported in Question 5-2 was for nanotechnology? For list-based definition see Question by Question Guidance at https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-12
	Nanotechnology – The application of science and technology to organisms, organic and inorganic materials as well as parts, products, and models thereof, at the nanometer-scale (but not exclusively below 1000 nanometers).



Characteristics of foreign R&D paid for and performe	d by yo	ur comp	oany
5-13 Copy the amount from Question 2-10, column 2. This is the foreign R&D paid for and performed by your company.	\$Bil.	Mil.	Thou.
5-14 How much of the <u>foreign R&D paid for and performed</u> <u>by your company</u> reported in Question 5-13 was for the following categories?	\$Bil.	Mil.	Thou.
a. Research-planned, systematic pursuit of new knowledge or understanding			
b. <u>Development</u> -systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.			
c. Total (equals Question 5-13)			
Domestic R&D performed by your company that was If the amount reported in Question 3-1, line j was less than \$1 Million	_	-	
5-15 Copy the amount from Question 3-5, column 1. This is the domestic R&D performed by your company that was paid for by others.	\$Bil.	Mil.	Thou.
5-16 How much of the amount reported in Question 5-15 was for the following categories?	\$Bil.	Mil.	Thou.
a. Research-planned, systematic pursuit of new knowledge or understanding			
b. <u>Development</u> -systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes			
c. Total (equals Question 5-15)			
5-17 If you reported any research in Question 5-16, line a, how much of that research was for the following categories?	\$Bil.	Mil.	Thou.
a. Applied research-activities aimed at solving a specific problem or meeting a specific commercial objective			
b. Basic research—activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses			
c. Total (equals Question 5-16, line a)			



NOTE: You may report the same R&D in multiple areas for Questions 5-18 to 5	5-22.
What percentage of the amount reported in Question 5-15 had energy applications, including energy production, distribution, storage, and efficiency (excluding exploration and prospecting)?	%
What percentage of the amount reported in Question 5-15 had environmental protection applications, including pollution abatement?	%
5-20 What percentage of the amount reported in Question 5-15 had defense applications, including military applications and homeland security-related R&D?	%
5-21 What percentage of the amount reported in Question 5-15 had health or medical applications?	%
5-22 What percentage of the amount reported in Question 5-15 had agricultural applications?	%
Technology focus of domestic R&D performed by your company paid for by others	that was
NOTE: You may report the same R&D in multiple areas for Questions 5-23 to 5	5-25.
5-23 What percentage of the amount reported in Question 5-15 was for software products or software embedded in other projects or products?	%
What percentage of the amount reported in Question 5-15 was for biotechnology? For list-based definition see Question by Question Guidance at https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-24	
Biotechnology – The application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services.	%
What percentage of the amount reported in Question 5-15 was for nanotechnology? For list-based definition see Question by Question Guidance at https://www.census.gov/programs-surveys/brds/information/brdshelp.html#q5-25	
Nanotechnology – The application of science and technology to organisms, organic and inorganic materials as well as parts, products, and models thereof, at the nanometer-scale (but not exclusively below 1000 nanometers).	%

Domestic R&D performed by your company that was U.S. federal government	paid fo	or by the	
5-26 Copy the amount from Question 3-8, line d. This is	\$Bil.	Mil.	Thou.
the domestic R&D performed by your company that was paid for by the U.S. federal government.			
5-27 How much of the amount reported in Question 5-26			
was for the following categories?	\$Bil.	Mil.	Thou.
a. Research-planned, systematic pursuit of new knowledge or understanding			
b. <u>Development</u> -systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes			
c. Total (equals Question 5-26)			
5-28 If you reported any research in Question 5-27, line a, how much was for the following categories?	\$Bil.	Mil.	Thou.
 a. Applied research—activities aimed at solving a specific problem or meeting a specific commercial objective 			
b. Basic research—activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses			
c. Total (equals Question 5-27, line a)			
5-29 What percentage of the amount reported in Question 5-2 for software products or software embedded in other proor products?			%
Characteristics of foreign R&D performed by your cofor by others	mpany	that was	paid
5-30 Copy the amount from Question 3-5, column 2. This is	\$Bil.	Mil.	Thou.
the <u>foreign R&D performed by your company and paid</u> <u>for by others</u> .			
5-31 How much of the amount reported in Question 5-30			
was for the following categories?	\$Bil.	Mil.	Thou.
a. Research-planned, systematic pursuit of new knowledge or understanding			
b. <u>Development</u> -systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes			
c. Total (equals Question 5-30)			



SECTION 6

Human Resources

Who should answer this section?

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

What does this section cover?

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

How many employees reported in Question 1-8 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			
b. All other employees			
c. Total employees			

Total line equals Question 1-8

R&D employees

How many of the R&D employees reported in Question 6-1, line a, were female employees and male employees?

(1) (2) (3) (3) Total R&D employees

a. Female R&D employees

b. Male R&D employees

c. Total R&D employees

Total line equals Question 6-1, line a



6-3	How many of the R&D em occupations listed below?	(1)	(2)	(3)
	a. Researchers (including	Domestic operations	Foreign operations	Total R&D employees
	R&D scientists,			
	engineers, and their managers)			
	b. R&D technicians and equivalent staff			
	c. R&D support staff (clerical and other)		000000	
	d. Total R&D employees			
		Total	line equals Question 6-1, I	ine a
6-4	How many of the research	ners reported in Ques	stion 6-3, line a, had t	the following
	level of education?	(1) Domestic	(2) Foreign	(3) Total
		Operations	Operations	Total
	PhD (excluding MD, JD, and EdD)			
Don	nestic full-time equival	ents (FTEs)		
6-5	Of the domestic R&D emp was the number of full-time employees, other full-time employees?	ne equivalents (FTEs)	for R&D activity for	full-time R&D
	employees:			Number
	a. FTEs for full-time R&D em	nployees		
	Count the number of full-t	time employees who w	ork only on R&D	
	Example: 50 full-time R&D employees	worked only on R&D = 5	0 FTEs	
	b. FTEs for other full-time er	nplovees not working s	solely on R&D	
	Use the share of the time		•	
	number of FTEs			
	Example: 60 full-time employees aver	aged one-fourth of their t	ime on R&D = 15 FTEs	
	c. FTEs for part-time employ	rees working on R&D		
	Use the share of a full-tim on R&D to calculate the F	ne week (such as 40 ho		
	Example: 20 part-time employees ave	raged 20 hours a week or	n R&D activities = 10 FTEs	
	d. Total FTEs			
		Total FTEs shou	ld not exceed Question	6-1, line a, column 1.



th er	f the domestic researchers reported in Question 6-3, line a, column 1, what was e number of full-time equivalents (FTEs) for R&D activity for full-time R&D appropriately
	FTEs for full-time researchers
a.	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
	ETEs for part time recognishers working on P&D
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 6-3, line a, column 1.
	Total i i LS siloula flot exceed Question 6-5, line a, column 1.
w	ow many of the domestic researchers reported in Question 6-3, line a, column 1, ere non-U.S. citizens employed in the United States under a temporary visa, such
as	s H-1B or L-1? (1) Domestic
	Operations
R	esearchers employed under a temporary visa

SECTION 7

SECTION 7

Intellectual Property and Technology Transfer

Who should answer this section?

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

What does this section cover?

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

Are responses to this survey confidential?

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

Total patents and utility patents

7-1	How many total patents did your company apply for in 2017 from the U.S. Patent and Trademark Office (USPTO)?	Number
7-2	Of the patent applications reported in Question 7-1, what was the number of <u>nonprovisional utility patent</u> applications?	Number
7-3	What percentage of the <u>nonprovisional utility patent</u> applications reported in Question 7-2 has your company applied for or plans to apply for in foreign jurisdictions?	%
7-4	What percentage of the <u>nonprovisional utility patent</u> applications reported in Question 7-2 was for inventions that originated within your company's organized R&D activities?	%
7-5	What percentage of your company's inventions <u>considered</u> for patenting in 2017 resulted in nonprovisional utility patent applications?	%
7-6	How many <u>utility patents</u> were <u>issued</u> to your company in 2017 by the USPTO?	Number



Utility patent sales and licensing to others			
7-7 How much revenue did your company receive in 2017 from the sale of utility patents?	\$Bil.	Mil.	Thou.
	\$Bil.	Mil.	Thou.
7-8 How much revenue did your company receive in 2017 from utility patent licensing?			
7-9 Was any of the revenue reported in Questions 7-7 or 7-8 received from companies or organizations located outside the United States?		☐ Yes	□ No
Utility patent purchases and licensing from others			
7-10 How much did your company pay others in 2017	\$Bil.	Mil.	Thou.
to purchase utility patents?			
7-11 How much did your company pay others in 2017	\$Bil.	Mil.	Thou.
to license utility patents?			
7-12 Were any of the payments reported in Questions 7-10 or 7-11 made to companies or organizations located outside the United States?		☐ Yes	□ No
Form BRD-1	118 111		

Intellectual property transfer activities		
7-13 Did your company perform the following activities in 2017?		
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
Intellectual property protection		
7-14 During 2017, how important to your company were the following types of intellectual property protection? Very important	Somewhat important	Not important
7-14 During 2017, how important to your company were the Very		
7-14 During 2017, how important to your company were the following types of intellectual property protection? Very important		
7-14 During 2017, how important to your company were the following types of intellectual property protection? a. Utility patents (patents for invention)		
7-14 During 2017, how important to your company were the following types of intellectual property protection? a. Utility patents (patents for invention)		
7-14 During 2017, how important to your company were the following types of intellectual property protection? a. Utility patents (patents for invention). b. Design patents (patents for appearance).		
7-14 During 2017, how important to your company were the following types of intellectual property protection? a. Utility patents (patents for invention) b. Design patents (patents for appearance) c. Trademarks.		
7-14 During 2017, how important to your company were the following types of intellectual property protection? a. Utility patents (patents for invention) b. Design patents (patents for appearance) c. Trademarks. d. Copyrights e. Trade secrets		
7-14 During 2017, how important to your company were the following types of intellectual property protection? a. Utility patents (patents for invention) b. Design patents (patents for appearance) c. Trademarks. d. Copyrights e. Trade secrets f. Mask works (copyright protection for semiconductor products)		
7-14 During 2017, how important to your company were the following types of intellectual property protection? a. Utility patents (patents for invention). b. Design patents (patents for appearance). c. Trademarks. d. Copyrights e. Trade secrets f. Mask works (copyright protection for semiconductor products) Research and experimentation tax credit 7-15 Did your company file for the tax credit for increasing	important	
7-14 During 2017, how important to your company were the following types of intellectual property protection? a. Utility patents (patents for invention). b. Design patents (patents for appearance). c. Trademarks. d. Copyrights e. Trade secrets f. Mask works (copyright protection for semiconductor products) Research and experimentation tax credit 7-15 Did your company file for the tax credit for increasing	important	

Puoir	ness codes	Conou	mer Goods
	n Sections 1, 2, and 3)	33333	Digital cameras manufacturing
l '	pace and Defense	33430	Audio and video equipment manufacturing
33642	Aircraft engine and engine parts manufacturing	31210	Beverage manufacturing
33641	Aircraft manufacturing	33200	Fabricated metal products manufacturing
33644	Guided missiles, space vehicles, and parts	31100 33700	Food manufacturing Furniture and related products manufacturing
	manufacturing	32300	Printing and related support activities
33692	Military armored vehicle, tank, and tank	32591	Soap, cleaning compound, and toilet
33452	components manufacturing Search, detection, navigation, guidance,		preparations manufacturing
00402	aeronautical, and nautical system and	31990	Textile, apparel, and leather products
	instruments manufacturing	31220	manufacturing Tobacco manufacturing
33660	Ship and boat building	33990	Miscellaneous manufacturing not listed
33643	Other aircraft parts and auxiliary equipment manufacturing		elsewhere (games, office supplies,
	manuracturing		slot machines, etc.)
Autom	obiles, Motorcycles, and Components	_	
33620	Motor vehicle body and trailer manufacturing		y and Mining
33630	Motor vehicle parts manufacturing	33360	Engine, turbine, and power transmission
33610 33691	Motor vehicles manufacturing Motorcycle, bicycle, and parts manufacturing	21200	equipment manufacturing Mining
33651	Railroad rolling stock manufacturing	33319	Mining, oil, and gas field machinery and
33660	Ship and boat building		equipment manufacturing
33699	All other transportation equipment	21100	Oil and gas extraction
	manufacturing	32401 21300	Petroleum refineries Support activities for mining,
Capita	l Equipment	21300	including oil and gas
33311	Agricultural machinery and equipment		moraumy on ana gao
	manufacturing	Financ	e, Insurance, and Real Estate
33332	Commercial, service industry, temperature	52200	Finance: banking and credit intermediation
	control, and airflow control machinery manufacturing	52400	Insurance carriers and related activities
33312	Construction machinery manufacturing	53100 52310	Real estate Securities, commodity contracts, and other
33500	Electrical equipment, appliances, and	32310	financial investments and related activities
	components manufacturing		(including funds and trusts)
33360	Engine, turbine, and power transmission equipment manufacturing		
33322	Industrial machinery manufacturing, except	Health	
""	semiconductor machinery	32543	Biotechnology-based pharmaceutical and biological products (except diagnostics)
33390	Metalworking and other general purpose	33451	Electromedical, electrotherapeutic, and
22240	machinery manufacturing	00.0.	irradiation apparatus manufacturing
33319	Mining, oil, and gas field machinery and equipment manufacturing	62200	Hospitals and nursing care facilities
33331	Photographic and photocopying equipment	32542	In vitro diagnostic substances manufacturing
	manufacturing	62150 33910	Medical and diagnostic laboratories Medical equipment and supplies manufacturing
Chemi	cals and Materials	62110	Offices of physicians
32402	Asphalt paving, roofing, and saturated	32541	Pharmaceutical, medicinal, and botanical
	materials manufacturing	E 4470	products manufacturing
32510	Basic chemicals manufacturing	54173	Research and development services in biotechnology
32790	Cement, concrete, lime, gypsum, and other	54174	Research and development services
32710	nonmetallic mineral product manufacturing Clay and glass products manufacturing		in physical, engineering, and life sciences
21200	Mining		(except biotechnology)
32592	Paint, adhesive, and other chemical	62199	Other ambulatory health care services (ambulance, dental, home health care)
	manufacturing		(ambulance, dental, nome health care)
32200 32530	Paper manufacturing Pesticide, fertilizer, and other agricultural		
32330	chemical manufacturing		
32600	Plastics and rubber products manufacturing		
33100	Primary metal manufacturing	[
32520	Resin, synthetic rubber, and artificial		
32591	synthetic fibers and filaments manufacturing Soap, cleaning compound, and toilet		
52551	preparations manufacturing	[
32100	Wood products manufacturing		
32403	Other petroleum and coal products		
	manufacturing, including motor oil, hydraulic fluid, and charcoal		
	nyaraune naia, ana enareoai		



Information Technology - Goods and Services 33333 Digital cameras manufacturing 72000 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 5 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 ۶ manufacturing (except radio, television, and wireless communication equipment) 51910 Other information services, including Internet publishing, broadcasting, and web search portals

54180 54130 54150	Advertising and related services Architectural, engineering, and related services 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

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)

Broadcasting (except Internet)

Other Services

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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)

Accommodation and food services



51500

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Is the information	ion reported in this survey reported for the 2017 calendar year	ar?
☐ Yes		
□ No → Enter	r time period covered below:	
	(MM) (YYYY) (MM) (YYYY)	
From		
		Hours Minutes
Approximately I	how long did it take to complete this survey?	i i i i i i i i i i i i i i i i i i i
,	. ,	
Remarks (Please reported data.)	e use this space below for any explanations that may be essential in unc	lerstanding your
Thank You -	Your Response is Important	

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

We estimate this survey will take an average of 3.3 hours to complete, including the time for reviewing instructions, searching 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 ERD-6H128 Washington, DC 20233

You may email comments to erd.survey.comments@census.gov. Be sure to use "ERD Survey Comments 0607-0912" as the subject.

