2010 BUSINESS R&D AND INNOVATION SURVEY

OMB No. 0607-0912: Approval Expires 10/31/2011

Economics and Statistics Administration U.S. CENSUS BUREAU BRDI-1A (03-01-2011)

DUE DATE:

Report electronically:

www.census.gov/econhelp/brdis Username:

Password:

Reporting electronically allows you to save your work as you go through the form and could save you time.

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If you report online, please do not mail in the paper form.

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

For information or assistance:

- www.census.gov/ econhelp/brdis
- Call 1-800-772-7851, option "5" (8 a.m. 5 p.m. EST, M-F)
- Write to the address above. Include your 11-digit ID printed on the mailing label.

(Please correct any errors in this mailing address)

Your Response is Required by Law

Title 13, United States Code, requires businesses and other organizations that receive this questionnaire to answer the questions and return the report to the Census Bureau.

Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget (OMB). The OMB number appears at the top of this page.

Your Response is Confidential by Law

Title 13, United States Code, requires that your response be seen only by persons sworn to uphold the confidentiality of Census Bureau information and may be used only for statistical purposes. The law also provides that copies retained in your company's files are immune from legal process.

About the Business R&D and Innovation Survey

The Business Research and Development 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.

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

Thank You – Your Response is Important

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

 $\scriptstyle\sim$ This survey is jointly conducted by the U.S. Census Bureau and the National Science Foundation $\scriptstyle\sim$



Table of Contents

Survey Overview and Table of Contents

The survey is divided into seven 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 cover the following topical areas:

	following topical areas:
Se	ction 1: Company Informationp.4
	Topics: company ownership, business(es), revenues, and innovation. Requires: knowledge of the company's sales and revenues.
Se	ection 2: Financial Schedule A
	Topics: R&D expenses and capital expenditures for R&D. Requires: knowledge of your company's accounting concepts and access to financial records.
Se	ection 3: Financial Schedule B
	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.
Se	ction 4: Management and Strategy of R&D
	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.

Requires: familiarity with the technical and strategic aspects of your company's R&D.

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.25

Topics: intellectual property and technology transfer.

Requires: knowledge of your company's general business strategy, patenting, and licensing.

Section 7: R&D Time Frame and R&D Product Life p.27

Topics: R&D time frame and R&D product life.

Requires: knowledge of accounting, sales, and marketing information related to your company's R&D activities and products resulting from R&D.

Changes from the 2009 survey

Based on extensive conversations with many of the 2009 survey respondents, the 2010 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 www.census.gov/econhelp/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 www.census.gov/econhelp/brdis.

Electronic materials

Electronic versions of the questionnaire and related documents are available to print or share with others in your company via email. They can be found at www.census.gov/econhelp/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)?

R&D is planned, creative work aimed at discovering new knowledge or developing new or significantly improved goods and services. 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 use of research and practical experience to produce new or significantly improved goods, services, or processes (development).

The term research and development 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?

Only development of software and internet applications that include an element of uncertainty and that are intended to close gaps and meet scientific and technological needs should be reported as R&D on this survey.

Research and development activity in software includes:

- Development of new software.
- Significant improvement of existing software.
- Construction of new theories and algorithms in the field of computer science.

Research and development activity in software does NOT include:

- Creation of new software based on known methods and applications.
- Support for existing systems.
- 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.
- Routine debugging of existing systems and software.

Reporting unit

The reporting unit is your company, including all subsidiaries and divisions. Include subsidiary companies where there is more than 50 percent ownership.

Reporting period

Report data for the calendar year 2010, if possible, or for your company's fiscal year ending between April 2010 and March 2011.

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 5 p.m. EST, M-F to help with any questions you may have.



Company Information

1-1		nnother company other than a holding company own more than 50 percent of company during 2010?
		Yes → Please provide the following information:
		Name of owner
		(MM) (DD) (YYYY)
		Date owner purchased your company
		No → Skip to Question 1-3
-		
1-2	If yo	u answered "Yes" to Question 1-1, is your company's owner a foreign company?
		Yes (Foreign owner) → Please follow these instructions:
		REPORTING INSTRUCTIONS FOR FOREIGN-OWNED COMPANIES: If your company is foreign-owned, the reporting unit for the survey is your U.Sbased company, including all its majority-owned subsidiaries and divisions regardless of location. For reporting purposes, your foreign owner and any other foreign affiliates your company does not own should be treated the same as any other customer or business partner you do not own.
		If you pay your foreign owner 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 owner 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 (U.S. owner) → Please provide the following information:
		EIN of owner (9 digits)
		REPORTING INSTRUCTIONS: If your company was purchased between April 1, 2010 and December 31, 2010, report only for the period January 1, 2010 to the date of purchase. If your company was purchased before April 1, 2010, complete Question 1-6 and return this form to the Census Bureau – you are not required to complete the rest of this survey. Disregard these instructions if your owner instructs you to complete this survey.



1-3	Did your company own more than 50 percent of any subsidiaries outside the 50 United States and D.C. during 2010? ☐ Yes → Include data for these subsidiaries in your survey responses
	□ No
1-4	Has your company ceased operations?
	Yes → Please provide the following information: (MA) (PD) (2000)
	Date your company ceased operations (MM) (DD) (YYYY)
	REPORTING INSTRUCTIONS: If your company ceased operations between April 1, 2010 and December 31, 2010, report only for the period January 1, 2010 to the date your company ceased operations. If your company ceased operations before April 1, 2010, 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 2010? ☐ 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 within your company's R&D, accounting, human resources, and legal matters.
	Name
	Title
	Telephone Fax Area code Number Extension Area code Number
	E-mail address



1-7	What business code from the list below or the codes on pages 30-31 accounts for the largest share of your company's operations in 2010?									
	NOTE: These codes will activities and may differ and reports.		Business Code							
	If no business codes a pages 30-31 that best									
	Business Code (see pages 30-31)	Descr	ption							
1-8	What was the amounduring 2010?	t of your company's <u>worldwide ı</u>	net sales and reve	<u>nues</u>						
	Exclude:	evenues from discontinued operations	\$Bil. M	il. Thou.						
1-9	How much of the am from domestic opera	ount reported in Question 1-8 wations?		or originated						
	Include:Operating revenues as including foreign substitution	nd sales to foreign customers, sidiaries	\$Bil. M	il. Thou.						
1-10	business code report (1) Worldwide net sa	ales and operating revenues repores and operating revenues repor (1) Worldwide net sales and	rted in Question 1 ted in Question 1- Domestic	I-8 9 (2) net sales and						
	Business Code	operating revenues \$Bil. Mil. Thou.		g revenues il.						
	a									
	b. All other sales and operating revenues									
	c. Total									
		Total equals Question 1-8	Total equals	Question 1-9						

Inno	ation
1-11	Did your company introduce any of the following during the three-year period, 2008 to 2010?
	a. New or significantly improved goods (excluding the simple resale of new goods purchased from others and changes of a solely aesthetic nature)
	o. New or significantly improved services
	c. New or significantly improved methods of manufacturing or producing goods or services
	d. New or significantly improved logistics, delivery, or distribution methods for your inputs, goods, or services
	e. New or significantly improved support activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing
1-12	f you answered "yes" to either 1-11, line a, or 1-11, line b, were any of those new or significantly improved goods or services:
	a. New to one of your markets?
	Your company introduced new or significantly improved goods or services to one of your markets before your competitors (it may have been available in other markets).
	o. Only new to your company?
	Your company introduced new or significantly improved goods or services that were already available from your competitors in your markets.
1-13	Jsing the definitions above, please give the percentage of your total cales in 2010 from:
	a. New or significantly improved goods and services introduced during 2008 to 2010 that were new to one of your markets
	o. New or significantly improved goods and services introduced during 2008 to 2010 that were only new to your company
	c. Goods and services that were unchanged or only marginally modified during 2008 to 2010 (include the resale of new goods or services purchased from other companies)
	d. Total sales in 2010
1-14	1-17 Not applicable to this form



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 (inside/outside the U.S., specific location), and by business code.

(IIISIUE/C	butside the 0.5., specific location), and by business code.			
2-1	What was the total worldwide R&D expense for your com	pany in 20°	10?	
	If your company is publicly traded, this amount is equivalent to that disclosed on SEC Form 10-K as defined by 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 www.census.gov/econhelp/brdis. 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 followi	ng costs?	
	a. Collaborative research and development that was reimbursed 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 (suc product support provided by R&D employees)		Yes	□ No
	d. Bid and proposal costs		Yes	□ No
	e. Expense your company claimed resulting from the acquisitio another company with unfinished R&D projects (In-process R		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	\$Bil.	Mil.	Thou.
	result here. This is the <u>total R&D paid for by your company</u> in 2010.			
2-5	Is the amount entered in Question 2-4 greater than zero?			
	Yes → Continue with Question 2-7			
	No → Skip to Section 3 on page 12			
2-6	Not applicable to this form			

R&D	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 Allocation in proportion to operating revenues is acceptable unless sor basis is more appropriate.										
	Business Code (see page 6)	\$Bil.	Mil. Thou.								
	a										
	b. All other R&D paid for by your company										
	c. Total (equals Question 2-4)										
2-8	Of the amount reported in Question 2-4, what costs were company in the following locations?	incurre	d by your								
	a. Domestic U.S. (50 states and D.C.) [Include R&D performed by domestic operations that are paid for by foreign subsidiaries]	\$Bil.	Mil. Thou.								
	b. All other countries (also, Puerto Rico) [Include R&D performed by foreign subsidiaries that are paid for by domestic operations]										
	c. Total (equals Question 2-4)		000 000								
2-9	Copy the amount from Question 2-8, line a. This is the total domestic R&D paid for by your company in 2010.	\$Bil.	Mil. Thou.								
2-10	Copy the amount reported from Question 2-8, line b. This is the total foreign R&D paid for by your company in 2010.	\$Bil.	Mil. Thou.								
2-11	How much of the (1) domestic, (2) foreign, and (3) total we your company in 2010 was for each of the following types (1) (2) Domestic Foreign										
a. Sal	\$Bil. Mil. Thou. \$Bil. Mil. Thou. aries, wages, and fringe benefits	<u>\$Bil.</u>	Mil. Thou.								
c. Ter	mporary staffing including on-site consultants										
h. Pay	yments to business partners for collaborative R&D										



2-11	(Contin	ued)							
		(1) Domestic			(2) Foreign		,	(3) Total Worldwide	
:	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil. Thou.	
i. Pur	chased R	&D service	s (if your com	npany is fore	ign-owned, ir	nclude paym	ents to your	foreign owner for R&D)	
I. All	other cos	ts							
m. Tot	tal								
	Total ed	quals Questi	on 2-9	Total ed	quals Questic	on 2-10	Total	equals Question 2-4	
2-12			and i for e		nn, and en	ter the res	sult here.		
		(1) Domestic			(2) Foreign		,	(3) Total Worldwide	
:	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil. Thou.	
2-13	- 2-15	Not app	licable to	this form					
2-16	for colu the <u>don</u>	ımn 1 only	n 2-12 fror / and enter D paid for :	r the resul	t here. Thi	s is	\$Bil.	Domestic Mil. Thou.	
2-17	largest	dollar am		D reporte			and how r	ny perform the nuch of that R&D	
							\$Bil.	Mil. Thou.	5
	State	JU							4
2-18	At wha R&D in Address	2010?	c location	did your c	ompany pe	erform the	largest d	ollar amount of	
	Address	2							
	City						State	ZIP	

2-19 How much of the amount reported in Question 2-16	\$Bil.	Mil.	Thou.
was from the location identified in Question 2-18?			
2-20 How much of the amount reported in Question 2-16 was for reported in Question 2-7?	or the bu	siness cod	le
Business Code (see page 6)	\$Bil.	Mil.	Thou.
2-21 - 2-23 Not applicable to this form			
Projected R&D for 2011			
2-24 What are your company's projected 2011 costs for (1) dom (3) total worldwide R&D paid for by your company?	nestic, (2) foreign, a	and
NOTE: This amount is the 2011 projection for what is repo Question 2-11, line m.	orted in		
_ (1) _ (2)	_	(3)	
Domestic Foreign \$Bil. Mil. Thou. \$Bil. Mil. Thou.	\$Bil.	Total Worldw Mil.	r ide Thou.
2-25 How much of the amount reported in Question 2-24,		Domestic	;
2-25 How much of the amount reported in Question 2-24, column 1, is for projected purchased R&D services	\$Bil.	Domestic Mil.	: Thou.
	\$Bil.		
column 1, is for projected purchased R&D services and projected payments to business partners for	\$Bil.		
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures	\$Bil. \$Bil.		
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D?		Mil.	Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures 2-26 What was the amount of your company's capital		Mil.	Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures 2-26 What was the amount of your company's capital expenditures in the domestic United States in 2010?		Mil.	Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures 2-26 What was the amount of your company's capital	\$Bil.	Mil.	Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures 2-26 What was the amount of your company's capital expenditures in the domestic United States in 2010? 2-27 How much of the amount reported in Question 2-26	\$Bil.	Mil.	Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures 2-26 What was the amount of your company's capital expenditures in the domestic United States in 2010? 2-27 How much of the amount reported in Question 2-26 was for R&D operations?	\$Bil.	Mil.	Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures 2-26 What was the amount of your company's capital expenditures in the domestic United States in 2010? 2-27 How much of the amount reported in Question 2-26 was for R&D operations?	\$Bil.	Mil.	Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures 2-26 What was the amount of your company's capital expenditures in the domestic United States in 2010? 2-27 How much of the amount reported in Question 2-26 was for R&D operations?	\$Bil.	Mil.	Thou.
column 1, is for projected purchased R&D services and projected payments to business partners for collaborative R&D? Capital Expenditures 2-26 What was the amount of your company's capital expenditures in the domestic United States in 2010? 2-27 How much of the amount reported in Question 2-26 was for R&D operations?	\$Bil.	Mil.	Thou.



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 (inside/outside the U.S., specific location), and by business code.

fo	hat were your company's <u>total worldwide costs</u> (botl r the following that were funded, paid for, or reimbu ur company?	h di ırse	rect and d by oth	d indirect) ners not o	in 2010 wned by
•	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 owner, if your company was foreign-owned				
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 services provided to the government and/or government contractors				
e.	Medical nonclinical R&D services provided to others not owned by your company				
f.	Phase I-III medical clinical trial services provided to others not owned by your company (include pass-through costs)				
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.	Developing, producing, and testing prototypes of customer's products prior to their introduction to the market (excluding defense-related prototyping reported in line d)				
i.	All other R&D services provided to others not owned by your company				
i	Total				



3-2	Copy the amount from Question 3-1, line j.	\$Bil.	Mil.	Thou.
	This is the total R&D paid for by others in 2010.			
3-3	Is the amount entered in Question 3-2 greater than zero?			
	Yes → Continue with Question 3-5			
	No → Skip to Section 4 on page 17			
R&D	paid for by others			
3-4	Not applicable to this form			
3-5	Of the amount reported in Question 3-2, what costs were	incurre	d by your	
	company in the following locations?	\$Bil.	Mil.	Thou.
	a. Domestic U.S. (50 states and D.C.)			
	b. All other countries (also, Puerto Rico)			
	c. Total (equals Question 3-2)			
		\$Bil.	Mil.	Thou.
3-6	Copy the amount from Question 3-5, line a. This is the total domestic R&D paid for by others in 2010.			
		\$Bil.	Mil.	Thou.
3-7	Copy the amount from Question 3-5, line b. This is the total foreign R&D paid for by others in 2010.			

	much of the rs in 2010 w						e R&D paid	for by
	(1) Domestic			(2)			(3) Total Worldwi	ida
\$Bil.	Mil.	Thou.	\$Bil.	Foreign <u>Mil.</u>	Thou.	\$Bil.	Mil.	Thou.
a. Salaries, v	wages, and fr	inge benefits	8					
c. Temporar	y staffing incl	uding on-sit	e consultai	nts				
h. Payments	to business p	partners for	collaborativ	/e R&D				
. Purchased	d R&D service	s (if your com	pany is fore	ign-owned, i	nclude paym	ents to you	ur foreign owne	er for R&D)
. All other	costs							
m. Total								
				Ĭ Ĭ				
Total	al equals Quest	ion 2.6	Total	equals Ques	tion 2.7	Tot	al equals Ques	etion 2.2
	3-8, lines hais R&D perf						ugh R&D co	sts).
\$Bil.	(1) Domestic Mil.	Thou.	\$Bil.	(2) Foreign Mil.	Thou.	\$Bil.	(3) Total Worldwi Mil.	i de Thou.
3-10 - 3-	12 Not app	licable to t	his form					
Domestic	R&D per	formed by	y your c	ompany	that was	s paid f	or by othe	ers
and	ract Questicenter the resormed by yo	ult here. T	his is the	domestic	R&D	\$Bil.	Mil.	Thou.



	ow much of the amount reported in Question 3-13 was pollowing?	oaid for	by each of	the		
l l	If your company is a subcontractor or subgrantee, report the original source of f					
f	xample: Company Sub Inc. performs custom software development subcontractor on a contract with the U.S. Dept. of Defense. Even tho or the defense company, it reports the cost of this development in line was the original source of funds.	ugh Sub	Inc. is workin	g directly		
		\$Bil.	Mil.	Thou		
a.	Other companies located <u>inside</u> the United States					
b	Your company's foreign owner (if your company is foreign-owned)					
c.	Other companies located <u>outside</u> 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	All other organizations <u>inside</u> the United States					
h.	All other organizations located <u>outside</u> the United States					
i.	Total (equals Question 3-13)					
С	opy the amount from Question 3-14, line d. This	\$Bil.	Mil.	Thou		
is	domestic R&D performed by your company that was aid for by the U.S. federal government.					
	ow much of the amount reported in Question 3-15	\$Bil.	Mil.	Thou		
	as paid for by the following agencies?					
a.	Department of Defense					
b	Department of Energy					
c.	National Aeronautics and Space Administration					
	National Institutes of Health					
d.						
	All other					

3-17	Not applicable	to this form						
	Subtract Quest the result here. by your compa	This is the g	lomestic l	R&D perfor	<u>med</u>	\$Bil.	Mil.	Thou.
	sources.	iy tilat wao j	<u> </u>	y monitodori	<u></u>			
								O: :
	In which <u>state</u> (perform the lar							State
	How much of tl	no following	three am	ounte was	narfarma	d in the et	ata ranart	
	above:						-	
	(1) Domestic F (2) Domestic F							ion 3-15
	(3) Total dome	stic R&D pe	rformed b					ners
	•	Question 3-	13	(0)			(0)	
	(1) Federal			(2) Nonfederal			(3) Total	
\$1	Bil. Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
Proje	cted R&D pa	id for by o	thers in	2011				
_								
	What are your o that will be paid			<u>011</u> costs f	or R&D	\$Bil.	Mil.	Thou.
	NOTE: This amo	•		n for what i	s			
	reported in Ques		. ,					
	How much of the beginning to the beginni					ill		
	performed by y					\$Bil.	Mil.	Thou.
	NOTE: This amoreported in Ques		1 projectio	n for what i	s			
	reported in Ques	Stion 3-13.						
3-22	How much of th	ne projected	costs in 2	011 for do	mestic R8	&D		
	performed by yereported in Que					S		
	U.S. federal gov		iii be paic	i ioi by tile		\$Bil.	Mil.	Thou.
	NOTE: This amore		1 projectio	n for what i	s			



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 2010.

\$Bil.	Mil.	Thou.

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

- Yes → Continue with Question 4-5
- No → Skip to Question 4-19 on page 19
- 4-3 4-4 Not applicable to this form
- 4-5 What percentage of the amount reported in Question 4-1 was for R&D in science/technology new to the market(s) (i.e. first-to-market) in which your company operates?

Exclude

• R&D to improve upon, replicate, or adopt science/technology currently in use in the market(s) in which your company operates.

Example: In 2010 Company B used a portion of its R&D to explore the potential use of a new heat-conducting material in its cookware products. Because this technology had not been used previously in the cookware industry, Company B should include that R&D in this question.



4-6 - 4-8 Not applicable to this form



<u>de</u>	opy the amount from Question 2-16. This is the omestic R&D paid for and performed by your ompany.	\$Bil.	Mil.	Thou.
	ow much of the amount reported in Question 4-9 as for the following categories?	\$Bil.	Mil.	Thou.
a.	Research-the planned, systematic pursuit of new knowledge or understanding			
b.	<u>Development</u> -the systematic use of research and practical experience to produce new or significantly improved goods, services, or processes			
C.	Total (equals Question 4-9)			
	you reported any research in Question 4-10, line a, how uch of that research was for the following categories?	\$Bil.	Mil.	Thou.
a.	Applied research—the activity aimed at solving a specific problem or meeting a specific commercial objective			
b.	Basic research—the activity aimed at acquiring new knowledge or understanding without specific immediate commercial application or use			
c.	Total (equals Question 4-10, line a)			
TE: Your Service of the service of t	of application for domestic R&D paid for and pany ou may report the same R&D in multiple areas for Quest hat percentage of the amount reported in Question 4-9 hard applications, including energy production, distributed efficiency (excluding exploration and prospecting)? xample: Company B is a semiconductor manufacturer. Its products and	ions 4-12 ad tion, sto	2 to 4-13.	ur
sp th	pecifically for energy applications. In 2010, 10% of the domestic R&D pecifically for energy applications. In 2010, 10% of the domestic R&D pecifically was focused on improving the energy efficiency of its problem.	performed	by	
		ad		



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 4-14 to	4-18.
4-14 What percentage of the amount reported in Question 4-9 was for software products?	0%
4-15 What percentage of the amount reported in Question 4-9 was for software embedded in other projects or products?	%
4-16 Not applicable to this form	
4-17 What percentage of the amount reported in Question 4-9 was for biotechnology—the use of cellular and bio-molecular processes to solve problems or make useful products?	%
4-18 What percentage of the amount reported in Question 4-9 was for nanotechnology—the science and technology involving work at the nanometer scale?	0%
Activities with academia	
4-19 Did your company perform any of the following activities with univer or academic faculty in 2010?	sities, students,
a. Hired academic consultants for short-term projects in science and engineering	☐ Yes ☐ No
b. Hosted student interns pursuing undergraduate or graduate degrees in science or engineering for at least one month	☐ Yes ☐ No
c. Hosted postdoctoral fellows in science or engineering for at least one month	☐ Yes ☐ No
d. Had scientists or engineers from your company who served as visiting scientists or engineers at a college or university for at least one month	☐ Yes ☐ No
e. Made monetary gifts to universities or colleges that were restricted to supporting R&D	Yes No



Domestic R&D performed by your company that was	s paid for by others	8
4-20 Copy the amount from Question 3-13. This is the domestic R&D performed by your company that was paid for by others.	\$Bil. Mil.	Thou.
4-21 Is the amount entered in Question 4-20 greater than zero ∨es → Continue with Question 4-22 No → Skip to Section 5 on page 22	o?	
4-22 How much of the amount reported in Question 4-20 was for the following categories? a. Research—the planned, systematic pursuit of new knowledge or understanding	\$Bil. Mil.	Thou.
b. <u>Development</u> -the systematic use of research and practical experience to produce new or significantly improved goods, services, or processes		
c. Total (equals Question 4-20)		
4-23 If you reported any research in Question 4-22, line a, how much of that research was for the following categories? a. Applied research—the activity aimed at solving a specific problem or meeting a specific commercial objective	\$Bil. Mil.	Thou.
NOTE: You may report the same R&D in multiple areas for Ques	etions 4-25 to 4-28.	
4-24 Not applicable to this form 4-25 What percentage of the amount reported in Question 4-26 applications, including energy production, distribution, see efficiency (excluding exploration and prospecting)?		%
4-26 What percentage of the amount reported in Question 4-20 environmental protection applications, including pollutionabatement R&D?		%

4-27 What percentage of the amount reported in Question 4-20 for biotechnology—the use of cellular and bio-molecular p to solve problems or make useful products?			%
4-28 What percentage of the amount reported in Question 4-20 for nanotechnology—the science and technology involving the nanometer scale?			%
Domestic R&D performed by your company that was U.S. federal government	paid for	by the	
4-29 Copy the amount from Question 3-15. This is domestic R&D performed by your company that was paid for by the U.S. federal government.	\$Bil.	Mil.	Thou.
4-30 Is the amount entered in Question 4-29 greater than zero?			
 Yes → Continue with Question 4-31 No → Skip to Section 5 on page 22 			
4-31 How much of the amount reported in Question 4-29 was for the following categories?	\$Bil.	Mil.	Thou.
a. Research-the planned, systematic pursuit of new knowledge or understanding			
b. <u>Development</u> –the systematic use of research and practical experience to produce new or significantly improved goods, services, or processes			
c. Total (equals Question 4-29)			
4-32 If you reported any research in Question 4-31, line a, how much of that research was for the following categories?	\$Bil.	Mil.	Thou.
a. Applied research-the activity aimed at solving a specific problem or meeting a specific commercial objective			
b. Basic research—the activity aimed at acquiring new knowledge or understanding without specific immediate commercial application or use			
c. Total (equals Question 4-31, line a)			



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.

This sec	oes this section cover? ction requests information about tivities either full-time or part-		ployees, focusing on	those who wor	ked on		
5-1	5-1 What was the total number of worldwide employees working at your company for the pay period that included March 12, 2010?						
	Include:Full and part-time employee	s		Numbe	r		
	Exclude: • Leased or temporary employ	ees and on-site consultar	its				
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 employ Form 941, Employer's Quarterly		s whose payroll was rep	oorted on IRS			
		(1) Domestic Operations	(2) Foreign Operations	(3) Total Employe			
	Employees						
				Total equ Question			
5-3	How many employees rep	orted in Question 5-2	were R&D employe	ees?			
	R&D employees include all e R&D such as researchers, R&D R&D groups.						
	R&D employees exclude empersonnel, security guards, and		ect support to R&D, suc	h as corporate			

personnel, security guards, and cateteria workers.					
	(1) Domestic Operations	(2) Foreign Operations	(3) Total Employees		
a. R&D employees					
b. All other employees					
c. Total employees		000000	000000		

Total line equals Question 5-2



R&E	D Employees			
5-4	Copy the numbers from CR&D employees.	Question 5-3, line a. [·]	These are your compa	any's
	nab employees.	(1) Domestic Operations	(2) Foreign Operations	(3) Total R&D Employees
	R&D employees			
5-5	How many of the R&D en and male employees?	nployees reported in (1) Domestic	Question 5-4 were fe	emale employees (3) Total R&D
	a. Female R&D employees	Operations	Operations	Employees
	b. Male R&D employees		000000	000000
	c. Total R&D employees		otal line equals Question 5	5-4
			·	
5-6	How many of the R&D en occupations listed below	?	Question 5-4 worked	I in the
		(1) Domestic	(2) Foreign Operations	(3) Total R&D Employees
	a. R&D scientists, engineers, and managers	(1)		
	engineers, and	(1) Domestic	Foreign	Total R&D
	engineers, and managers	(1) Domestic	Foreign	Total R&D
	engineers, and managers	(1) Domestic	Foreign	Total R&D
	engineers, and managers	(1) Domestic Operations	Foreign	Total R&D Employees
	engineers, and managers	(1) Domestic Operations	Foreign Operations	Total R&D Employees
	engineers, and managers	(1) Domestic Operations	Foreign Operations	Total R&D Employees
	engineers, and managers	(1) Domestic Operations	Foreign Operations	Total R&D Employees
	engineers, and managers	(1) Domestic Operations	Foreign Operations	Total R&D Employees
	engineers, and managers	(1) Domestic Operations	Foreign Operations	Total R&D Employees

R&D	scientists, engineers, and m	anagers		
5-7	Copy the numbers from Question R&D scientists, engineers, and ma		These are the number	r of your company's
		(1) omestic erations	(2) Foreign Operations	(3) Total
	R&D scientists, engineers, and managers		000000	000000
5-8	How many of the R&D scientists, had the following level of education		and managers reporte	ed in Question 5-7
		(1) omestic erations	(2) Foreign Operations	(3) Total
	a. PhD (excluding MD, JD, and EdD)			
	b. All other			
	c. Total R&D scientists, engineers, and managers		000000	000000
			Total line equals Question	5-7
5-9 EII	Not applicable to this form			
5-10		in R&D act		
	Full-time equivalents account for R&D work full-time and R&D scientists and en activities full-time. For example, a scientist would be counted as one employee on a of an FTE employee. Similarly, a full-time to R&D would be counted as one quality time to R&D would be counted as one quality.	ngineers who o ist or enginee a headcount b e employee w uarter (1/4) of a	do not work on R&D r who works half-time asis but as one-half (½) ho devotes 25% of her an R&D FTE employee.	Number
5-11	How many FTEs reported in Quest activities funded by U.S. federal g for the pay period that included N	government	grants or contracts	Number



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 intellectual property related activities 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
- Transfer of intellectual property

Are responses to this survey confidential?

Yes. Your responses are completely confidential under Title 13, United States Code, 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. Title 13 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.

6-1	How many patents did your company <u>apply for</u> in 2010 from the U.S. Patent and Trademark Office (USPTO)?	Number
6-2	What percentage of the patent applications reported in Question 6-1 has your company applied for or plans to apply for in foreign jurisdictions?	9%
6-3	What percentage of the patent applications reported in Question 6-1 was for inventions that originated within your company's organized R&D activities?	%
6-4	How many patents were <u>issued</u> to your company in 2010 by the USPTO?	Number
6-5	What percentage of your company's inventions considered for patenting in 2010 resulted in patent applications?	%
		%
	in 2010 resulted in patent applications?	Thou.

6-7	How many new agreements did your company enter into during 201 to license patents to others not owned by your company?	10	Numb	er
Inte	llectual property transfer activities			
6-8	Did your company perform the following activities in 2010?			
	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—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, allowing free use of software patents by the open source community)	☐ Yes		No
	i. Made use of open source patents or other freely available IP not owned by your company	□ Yes		No
Inte	llectual property protection			
6-9	During 2010, how important to your company were the following types of intellectual property protection? Very important	Somewhat important		ot ortant
	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)			



R&D Time Frame and R&D Product Life

Who should answer this section?

Persons with access to accounting, sales, and marketing records related to your company's R&D and products resulting from R&D should complete this section.

What does this section cover?

This section requests information about the time frame of your company's R&D and R&D product life.

R&D Tir	ne E	ran	10

- 7-1 Did your company receive any revenue during 2008 to 2010 from products that resulted from R&D mostly paid for by your company?
 - Yes → Continue with Question 7-2
 - No → Skip to Question 7-6
- 7-2 What is the name (or description) of <u>one</u> product resulting from your company's R&D for which your company recently started receiving revenue?
- 7-3 Using the business codes in Question 1-7, which one best describes the product reported in Question 7-2?

Bus	sine	ss C	ode	

In what year did your company <u>first</u> receive revenue for the product reported in Question 7-2?

`	Year	r	

In what year did your company begin the R&D for the product reported in Question 7-2?



If the earliest R&D was used for more than one product, please report the year in which those earliest R&D activities began.

R&D	Product Life	
7-6	Did your company stop receiving revenue during 2008 to 2010 from a resulted from R&D mostly paid for by your company? ☐ Yes → Continue with Question 7-7 ☐ No → Skip to Remarks section on page 32	nny product that
7-7	What is the name (or description) of <u>one</u> product resulting from your for which your company recently stopped receiving revenue?	company's R&D
7-8	Using the business codes in Question 1-7, which one best describes the product reported in Question 7-7?	Business Code
7-9	In what year did your company <u>first</u> receive revenue for the product reported in Question 7-7?	Year
7-10	In what year did your company <u>last</u> receive revenue for the product reported in Question 7-7?	Year

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ъ.		_	
	less codes	Consu i 33430	mer Goods
(used in Sections 1, 2, 3, and 7)			Audio and video equipment manufacturing Beverage manufacturing
-	ace & Defense	31210 33200	Fabricated metal products manufacturing
33642 33641	Aircraft engine and engine parts manufacturing Aircraft manufacturing	31100	Food manufacturing
33644	Guided missiles, space vehicles, and parts	33700	Furniture and related products manufacturing
	manufacturing	33990	Miscellaneous manufacturing not listed elsewhere (games, office supplies,
33692	Military armored vehicle, tank, and tank		slot machines, etc.)
33643	components manufacturing Other aircraft parts and auxiliary equipment	32300	Printing and related support activities
00040	manufacturing	32591	Soap, cleaning compound, and toilet preparations manufacturing
33452	Search, detection, navigation, guidance,	31990	Textile, apparel, and leather products
	aeronautical, and nautical system and instruments manufacturing		manufacturing
33660	Ship and boat building	31220	Tobacco manufacturing
Autom	obiles, Motorcycles, & Components	Energy	and Mining
33620	Motor vehicle body and trailer manufacturing	33360	Engine, turbine, and power transmission
33630	Motor vehicle parts manufacturing	04000	equipment manufacturing
33610	Motor vehicles manufacturing	21200 33319	Mining Mining, oil, and gas field machinery and
33691	Motorcycle, bicycle, and parts manufacturing Railroad rolling stock manufacturing	33313	equipment manufacturing
33651 33660	Ship and boat building	21100	Oil and gas extraction
33699	All other transportation equipment	32401	Petroleum refineries
	manufacturing	21300	Support activities for mining, including oil and gas
Capital	Equipment		
33311	Agricultural machinery and equipment		e, Insurance, and Real Estate
33332	manufacturing Commercial, service industry, temperature	52200 52400	Finance: Banking and Credit Intermediation Insurance carriers and related activities
33332	control, and airflow control machinery	53100	Real estate
	manufacturing	52310	Securities, commodity contracts, and other
33312	Construction machinery manufacturing		financial investments and related activities
33500	Electrical equipment, appliances, and components manufacturing		(including funds and trusts)
33360	Engine, turbine, and power transmission	Health	care
33322	equipment manufacturing Industrial machinery manufacturing, except	33451	Electromedical, electrotherapeutic and
33322	semiconductor machinery	62200	irradiation apparatus manufacturing Hospitals and nursing care facilities
33390	Metalworking and other general purpose	32542	In-vitro diagnostic substances manufacturing
00040	machinery manufacturing	62150	Medical and diagnostic laboratories
33319	Mining, oil, and gas field machinery and equipment manufacturing	33910	Medical equipment and supplies manufacturing
33331	Photographic and photocopying equipment	62110 62199	Offices of physicians Other ambulatory health care services
	manufacturing		(ambulance, dental, home health care)
Chemic	cals and Materials	32541	Pharmaceutical, medicinal, botanical,
32402	Asphalt paving, roofing, and saturated		and biological products (except diagnostic) manufacturing
32510	materials manufacturing	54173	Research and development services
32790	Basic chemicals manufacturing Cement, concrete, lime, gypsum, and other	E 4474	in biotechnology
02700	nonmetallic mineral product manufacturing	54174	Research and development services in physical, engineering, and life sciences
32710	Clay and glass products manufacturing		(except biotechnology)
21200 32403	Mining Other petroleum and coal products		
02400	manufacturing, including motor oil,		
	hydraulic fluid, and charcoal		
32592	Paint, adhesive, and other chemical		
32200	manufacturing Paper manufacturing		
32530	Pesticide, fertilizer, and other agricultural		
00000	chemical manufacturing		
32600 33100	Plastics and rubber products manufacturing 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		
	, J		



Inform	ation Technology - Goods and 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)
33429	Other communication equipment
	manufacturing, (except radio, television,
	and wireless communication equipment)
51910	Other information services including
	internet publishing, broadcasting,
	and web search portals
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)

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

Other Services

72000	Accommodation and food services
56100	Administrative and support services
71000	Arts, entertainment, and recreation
23000	Construction
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
0.200	(except Internet)
51110	Newspaper, periodical, book, and
	directory publishers (except internet)
81000	Other services (not listed elsewhere)
49200	Couriers, messengers, and express delivery services
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



Remarks (Please use the space below for any explanations that may help us understand your reported data.)
We estimate that it will take from .5 to 12 hours to complete this form, with 6.9 hours being the average. This includes time to read instructions, develop or assemble materials, conduct tests, organize and review the information, and maintain and report the information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to:
Paperwork Project 0607-0912 U.S. Census Bureau 4600 Silver Hill Road AMSD-3K138 Washington, D.C. 20233
You may e-mail comments to Paperwork@census.gov; use "Paperwork Project 0607-0912" as the subject.
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