

DUE DATE
March 31, 2009

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U.S. Census Bureau
1201 East 10th Street
Jeffersonville, IN 47132-0001

For information or assistance:

- www.census.gov/econhelp/rd
- Call 1-800-851-2014, option "0" (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 U.S. Census Bureau. By the same law, **YOUR CENSUS REPORT IS CONFIDENTIAL.** It may be seen only by persons sworn to uphold the confidentiality of Census Bureau information and may be used only for statistical purposes. Further, copies retained in respondents' files are immune from legal process.

What does this survey ask?

This survey will ask questions about your company's **R&D expenses** as well as R&D that is paid for by customers, the government, and other organizations that are not owned or controlled by your company (**funded R&D**). This survey also requests data on your company's R&D employees and intellectual property (IP).

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 or services.

The term Research and Development does **not** include expenditures for:

- Routine quality control testing
- 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

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



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

BRD-1 (01-02-2009)

**2008 BUSINESS RESEARCH AND DEVELOPMENT
SURVEY**

OMB No. 1234-5678: Approval Expires 12/31/2012

Eligibility Criteria

Please answer the following questions to determine whether or not your company must complete this survey.

A Did your company do any of the following during 2008?

- Incur R&D expenses
- Perform R&D that was paid for by a party that is not owned or controlled by your company, such as:
 - Product development performed under contract for another company
 - Research funded by a government grant

Yes → Go to **C**

No → Go to **B**

B Did your company do any of the following during 2008?

- Own, receive, or apply for utility patents (patents for invention) from the U.S. Patent and Trademark Office
- License intellectual property to an outside party

Yes }
 No } Go to page 48, provide the information and return the form to the U.S. Census Bureau

C Did another U.S. company own more than 50 percent of your company as of March 31, 2008?

Yes → Go to **6.2** on page 47, certify form on page 48 and return to the U.S. Census Bureau

No → Go to **D**

D Did another U.S. company purchase more than 50 percent of your company between March 31, 2008 and December 31, 2008?

Yes → 1) Complete the survey form for the period prior to the purchase of your company
2) Go to **6.2** on page 47, certify form on page 48 and return to the U.S. Census Bureau

No → Go to **E**

E Did your company cease operations before April 1, 2008?

Yes → Certify the form on page 48 and return this survey to the U.S. Census Bureau

No → Complete the survey form for the period your company was operating in 2008

General Instructions

How do I fill out this survey?

The Business Research and Development survey asks questions on a variety of topics. It has been organized into six sections for ease of completion: (1) R&D Finance; (2) R&D Human Resources; (3) R&D Management & Strategy; (4) R&D Paid for by External Parties; and (5) Intellectual Property and Technology Transfer and (6) General Information.

The questions have been grouped into sections because of their specialized nature and to make it easier for your company to report. The different sections may need to be completed by different persons within the organization.

- **Section 1** asks for information about your company's R&D expenses, sales or revenues and capital expenditures. Persons with knowledge of and access to the company's financial records should complete this section.
- **Section 2** asks for information about your company's R&D employees. Persons with knowledge and access to the company's HR records should complete this section.
- **Section 3** asks specialized questions about the characteristics of your company's R&D reported in Section 1. Persons with direct access and knowledge to R&D operations, such as a VP of Research should complete this section.
- **Section 4** asks for information about R&D that is paid for by others, such as under a contract or by a federal grant. R&D paid for by a third party is considered funded R&D. Persons with knowledge of and access to the company's financial records should complete this section.
- **Section 5** asks for information about intellectual property such as patents and technology transfer activities such as licensing. Persons with specialized knowledge of these activities should complete this section.

We ask that you coordinate and review all responses to the survey before submitting your final form. Please watch for times when you will be asked to transfer some information from one section to other sections.

We encourage you to distribute sections or questions appropriately. To help you distribute sections or questions, we have set up a special website (www.census.gov/econhelp/rd). You can access electronic copies of the questions or the whole survey that you may distribute via internal email.

You may submit your final report by mail or electronically via a web-based form. To submit electronically (1) go to www.census.gov/econhelp/rd (2) click on Electronic Reporting (3) enter your Username and Password (4) make a selection from the Form Section List (5) click on Go To. Please complete the form either in mail or on the web.

To make our web reporting easy: You may enter data in any order; You may save, exit and return as many times as you like; You may print your entries; You may change your password and You may get a certificate of completion.

Business Segments

Business Segment Code	Description
PREPRINT 1 PREPRINT 2 PREPRINT 3 PREPRINT 4 PREPRINT 5 PREPRINT 6	

Printed above are the business segment codes and descriptions in which we believe your company operates. These codes and descriptions have been derived from the North American Industry Classification System (NAICS). For each of your company's business segments, confirm that the code(s) listed above are consistent with this company's business activities. If they are not correct, select the code that best describes the segment's business (or intended business for development-stage segments) from the list starting on page 5 and correct the business segment code(s) to reflect your company's worldwide business activities.

These business segment codes will be used to report the following data items:

- Worldwide R&D expense, Domestic R&D expense and performance in question 1.10
- Worldwide and Domestic sales and operating revenue in question 1.11
- Domestic R&D funded by others in question 4.6

For more information on business segments, refer to FASB SFAS No. 131 (Disclosure About Segments of an Enterprise and Related Information).

Aerospace & Defense		Commercial and Professional Services (including contract research)	
33641	Aircraft manufacturing	54120	Accounting, tax preparation, bookkeeping and payroll services
33642	Aircraft engine and engine parts manufacturing	54180	Advertising and related services
33643	Other aircraft parts and auxiliary equipment manufacturing	54130	Architectural, engineering, and related services
33644	Guided missiles, space vehicles and parts manufacturing	56140	Business support services
33692	Military armored vehicle, tank, and tank components manufacturing	53240	Commercial and industrial machinery and equipment rental and leasing
33452	Search, detection, navigation, guidance, aeronautical, and nautical system and instruments manufacturing	54110	Legal services
33660	Ship and boat building	54160	Management, scientific, and technical consulting services
Automobiles, Motorcycles & Components		56190	Office administrative, facilities, employment, and other support services
		54190	Professional, scientific, and technical services (Not listed elsewhere in this category)
33610	Motor vehicles manufacturing	32300	Printing and related support activities
33620	Motor vehicle body and trailer manufacturing	56290	Remediation and other waste management services
33630	Motor vehicle parts manufacturing	54170	Scientific research & development services
33691	Motorcycle, bicycle, and parts manufacturing	54140	Specialized design services
33699	All other transportation equipment manufacturing	56150	Travel arrangement and reservation services
		56210	Waste collection, treatment, and disposal
Capital Goods		Consumer Goods & Services	
33430	Audio and video equipment manufacturing		
33330	Commercial, service industry, temperature control, and air-flow control machinery manufacturing	71300	Amusement, gambling, and recreation industries
33312	Construction machinery manufacturing	31500	Apparel manufacturing
23600	Construction of buildings	33430	Audio and video equipment manufacturing
33360	Engine, turbine, and power transmission equipment manufacturing	81110	Automotive repair and maintenance
33200	Fabricated metal products manufacturing	31210	Beverage manufacturing
33311	Farm machinery and equipment manufacturing	51520	Cable and other subscription programming (except Internet)
23700	Heavy and civil engineering construction	62440	Child day care services
33322	Industrial machinery manufacturing, except semiconductor machinery	44800	Clothing and clothing accessories stores
33390	Metalworking and other general purpose machinery manufacturing	23600	Construction of buildings
33313	Mining machinery and equipment manufacturing	53220	Consumer goods and general rental centers
33651	Railroad rolling stock manufacturing	61100	Educational services
33660	Ship and boat building	33500	Electrical equipment, appliances, and components manufacturing
23800	Specialty trade contractors	45410	Electronic shopping and mail-order houses
		44300	Electronics and appliance stores
		44500	Food and beverage stores
		31100	Food manufacturing
		72200	Food services and drinking places

Consumer Goods & Services - Continued		Financials	
33700	Furniture and related products manufacturing	52230	Activities related to credit intermediation
45200	General merchandise stores	52420	Agencies, brokerages, and other insurance related activities
51600	Internet publishing and broadcasting	52210	Depository credit intermediation
56160	Investigation, security, and services to buildings and dwellings	52500	Funds, trusts, and other financial vehicles
31600	Leather and allied products manufacturing	52410	Insurance carriers
33990	Miscellaneous manufacturing (Not elsewhere listed in this category)	52100	Monetary authorities-central bank
51200	Motion picture and sound recording (except Internet)	52220	Nondepository credit intermediation
44100	Motor vehicle and parts dealers	53100	Real estate
71200	Museums, historical sites, and similar institutions	52300	Securities, commodity contracts, and other financial investments and related activities
51110	Newspaper, periodical, book, and directory		
45490	Nonstore retailers, except electronic shopping and mail-order houses		Health Care
71100	Performing arts, spectator sports, and related industries	33451	Electromedical, electrotherapeutic and irradiation apparatus manufacturing
81200	Personal care, death care, laundry, and other personal services	62210	General medical and surgical hospitals
51510	Radio and television broadcasting (except Internet)	62160	Home health care services
81190	Repair and maintenance, except automotive	32543	In-vitro diagnostic substances manufacturing
45990	Retail trade stores, including gasoline stations (Not elsewhere listed in this category)	62150	Medical and diagnostic laboratories
32591	Soap, cleaning compound, and toilet preparations manufacturing	33910	Medical equipment and supplies manufacturing
62400	Social assistance (except child day care services)	62300	Nursing and residential care facilities
31300	Textile mill products	62120	Offices of dentists and other health practitioners
31220	Tobacco manufacturing	62110	Offices of physicians
56150	Travel arrangement and reservation services	62190	Outpatient care centers and other ambulatory health care services
72100	Traveler accommodation services	32541	Pharmaceutical, medicinal, botanical, and biological products (except diagnostic) manufacturing
		62220	Psychiatric, substance abuse, and specialty hospitals
Energy		54170	Scientific research & development services
21210	Coal mining		
22110	Electric power generation, transmission, and distribution		Information Technology - Goods and services
21100	Oil and gas extraction	33429	Communication equipment manufacturing, except broadcasting, wireless, and telephone apparatus
33313	Oil and gas field machinery and equipment manufacturing	54150	Computer systems design and related services
32400	Petroleum and coal products manufacturing	33410	Computers and peripheral equipment manufacturing
48610	Pipeline transportation of crude oil, refined petroleum, and miscellaneous products, except natural gas	51820	Data processing, hosting, and related services
48620	Pipeline transportation of natural gas	33500	Electrical equipment, appliances, and components manufacturing
21300	Support activities for oil and gas operations	51900	Information services (Not elsewhere listed in this category)

**Information Technology - Goods and services -
Continued**

Transportation

51810	Internet service providers and web search portals	48100	Air transportation
33460	Manufacturing and reproducing magnetic and optical media manufacturing	53210	Automotive equipment rental and leasing
33459	Measuring and control instruments manufacturing (Not listed elsewhere in this category)	49200	Couriers and messengers
33422	Radio and television broadcasting and wireless communications equipment manufacturing	48200	Rail transportation
33452	Search, detection, navigation, guidance, aeronautical, and nautical system and instruments manufacturing	48700	Scenic and sightseeing transportation
33440	Semiconductor and other electronic components manufacturing	48800	Support activities for transportation
33321	Semiconductor machinery manufacturing	48500	Transit and ground passenger transportation
51120	Software	48400	Truck transportation
33421	Telephone apparatus manufacturing	49300	Warehousing and storage
		48300	Water transportation

Materials

32511	Basic chemicals manufacturing
32790	Cement, concrete, lime, gypsum, and other nonmetallic mineral product manufacturing
32710	Clay and glass products manufacturing
33150	Ferrous and nonferrous foundries
33110	Iron and steel mills, ferroalloy, and steel product from purchased steel
21220	Metal ore mining
33130	Nonferrous metals production and processing
21230	Nonmetallic mineral mining and quarrying

Utilities

22110	Electric power generation, transmission, and distribution
22120	Natural gas distribution
56290	Remediation and other waste management services
56210	Waste collection, treatment, and disposal
22130	Water, sewage, and other systems

Business Segments Not Elsewhere Classified

32592	Paint, adhesive, and other chemical manufacturing	81390	Business, professional, labor, political, and similar organizations
32200	Paper manufacturing	53300	Lessors of nonfinancial intangible assets
32530	Pesticide, fertilizer, and other agricultural chemical manufacturing	55100	Management of companies and enterprises
32600	Plastics and rubber products manufacturing	33990	Manufacturing (Not listed elsewhere)
32512	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	42300	Merchant wholesalers, durable goods
32591	Soap, cleaning compound, and toilet preparations manufacturing	42400	Merchant wholesalers, nondurable goods
21310	Support activities for solid mineral operations	81310	Religious, grantmaking, social advocacy, civic, and social organizations
32100	Wood products manufacturing	42500	Wholesale electronic markets and agents and brokers

Telecommunication Services

51750	Cable and other program distribution
51740	Satellite telecommunications
51790	Telecommunications services (Not listed elsewhere in this category)
51710	Wired telecommunications carriers
51720	Wireless telecommunications carriers (except satellite)

SECTION 1 – R&D FINANCE

What does this section cover?

This section requests financial information about your company's R&D expenses, sales or revenues, and capital expenditures for R&D.

Who should answer this section?

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

What is the reporting unit?

Report data for your company, including all subsidiaries and divisions. Include operations of subsidiary companies, where there is more than 50 percent ownership, as well as companies that your company has the power to direct or cause the direction of management and policies.

This section requests information about your company's R&D at multiple levels of detail: for your global 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 segment. The questions in this section provide detailed definitions of these terms and clarifying examples.

What is the difference between *R&D expense* and *R&D performance*?

This section uses two different concepts to collect information about your company's R&D: an accounting concept (*R&D expense*) and a physical concept (*R&D performance*). The amount of R&D reported using these two concepts may differ.

Report ***R&D expense*** using your company's accounting definitions of R&D. Examples of accounting standards commonly used by companies include the Financial Accounting Standards Board (FASB) Statement of Accounting Standards No. 2 (Accounting for Research and Development Costs) and Section 1.174 of the U.S. Code of Federal Regulations (Title 26, Internal Revenue) which defines R&D for tax filing purposes.

Exclude:

- R&D from acquired companies prior to acquisition (in-process R&D)
- Costs for routine product testing, quality control, and technical services
- Work funded or paid for by parties not owned or controlled by your company (these costs are reported in Section 4).

Report ***R&D performance*** based on the location where R&D was carried out.

Exclude:

- R&D performed for your company by external parties not owned or controlled by your company such as contract research organizations, universities, and federal laboratories.

What does the term "Domestic" mean?

The term "Domestic" refers to the 50 United States and the District of Columbia only.

Are estimates acceptable?

Please report all items to the best of your ability. Reasonable estimates are acceptable.

Report all dollar amounts rounded to the nearest thousands.

	\$Bil.	Mil.	Thou.
Example: If figure is \$179,125,628.00 report:		179	126

What time period should be reported?

Report data for calendar year 2008, if possible.

Worldwide R&D expense

1.1 What was the total Worldwide R&D expense for this company (including all Domestic expenditures) in 2008? (Enter 0 if none)

Include:

- R&D expenses for all foreign and domestic subsidiaries and divisions owned or controlled by this company
- Contract R&D services purchased from third parties, including clinical trials
- R&D in social science (the application of scientific methods to the study of the human aspects of the world), including anthropology, economics, political science, psychology, and sociology.

\$Bil.	Mil.	Thou.

Exclude:

- R&D costs paid for by parties not owned or controlled by this company (these costs are reported in Section 4):
 - Costs associated with contract services this company provides to others
 - Costs for R&D funded by government grants
 - Costs reimbursed by business partners
- Capital expenditures for R&D (Report Domestic capital expenditures in question 1.15)

1.1a Was the amount entered in **1.1** greater than zero?

- Yes → Go to **1.2**
- No → Complete questions **1.3** , **1.4** , **1.11** , **1.16** and **1.17** , and continue to Section 2.

1.2 Of the amount reported in Question **1.1** (Worldwide R&D expense), what amount was for gross payroll (wages and salaries of employees excluding the cost of fringe benefits) in 2008? (Enter 0 if none)

\$Bil.	Mil.	Thou.

Worldwide net sales and operating revenues

1.3 What was the amount of this company's Worldwide net sales and operating revenues (the value of goods and services sold during the year, net of discounts, returns, and allowances) during 2008? (Enter 0 if none)

Exclude:

- Non-operating income (e.g. dividends, interest)
- Excise and sales taxes paid to Federal, State, local, or other taxing agencies

\$Bil.	Mil.	Thou.

Domestic net sales and operating revenues

1.4

What was the amount of this company's net sales and operating revenues (the value of goods and services sold during the year, net of discounts, returns, and allowances) attributable to Domestic operations during 2008? (Enter 0 if none)

Include:

- Intra-company sales and operating revenues to foreign subsidiaries

\$Bil.	Mil.	Thou.

Exclude:

- Non-operating income (e.g. dividends, interest)
- Excise and sales taxes paid to Federal, State, local, or other taxing agencies

Worldwide R&D by country

1.5

Of the amount reported in Question 1.1 (Worldwide R&D expense), what are the expenses by country and the amount of R&D performed by your company by country in 2008?

R&D expense by country should reflect the R&D costs incurred on behalf of or for the benefit of the company operations in each country. R&D that is applicable to more than one country should be allocated to those countries on a reasonable basis. Allocation in proportion to operating revenues is acceptable unless some alternative allocation basis is more appropriate.

R&D performance by country should reflect the actual location where your company performed R&D. *Exclude R&D performed for your company by external parties not owned or controlled by your company such as contract research organizations, universities, and federal laboratories.*

Example: Company A is based in the United States and earns all its revenue from its U.S. operations and its R&D is for the benefit of its U.S. operations. In 2008 Company A has \$10 million of R&D expenses. \$6 million of R&D was performed by a research facility the company owns in Japan and \$4 million was performed by a contract research organization in the U.S. Company A reports \$10 million of R&D expenses for the United States and \$6 million of R&D performance for Japan. Company A does not report the \$4 million of R&D it outsourced in the "R&D Performance" column because the R&D was not performed by A or any of A's subsidiaries.

	R&D expense			R&D performance		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
a. United States						
b. Puerto Rico						
c. Canada						
d. China						
e. France						
f. Germany						

QUESTION CONTINUES ON NEXT PAGE

Worldwide R&D by country (continued)

1.5 (Continued)

	R&D expense			R&D performance		
	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
g. India						
h. Ireland						
i. Israel						
j. Italy						
k. Japan						
l. Russia						
m. Singapore						
n. Sweden						
o. United Kingdom						
p. All other						
q. Total (R&D expense equals Question 1.1, R&D performance may be less)						

Domestic R&D performance funded by company Foreign operations

1.6 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance), what amount was for the benefit or on behalf of this company's Foreign operations or Foreign subsidiaries (i.e. what amount was not a Domestic R&D expense) in 2008? (Enter 0 if none)

\$Bil.	Mil.	Thou.

External R&D expenses

1.7

Of the amount reported in Question 1.1 (Worldwide R&D expense), what amount was for external R&D (R&D performed by other parties not owned or controlled by your company such as contract research organizations, universities, or government labs)? (Enter 0 if none)

\$Bil.	Mil.	Thou.

1.8

Of the amount reported in Question 1.7 (external R&D expense), what was the amount performed by each of the following types of organizations?

a. For-profit companies

\$Bil.	Mil.	Thou.

1. Located in the United States

\$Bil.	Mil.	Thou.

2. Located outside the United States

\$Bil.	Mil.	Thou.

b. U.S. federal agencies or laboratories

\$Bil.	Mil.	Thou.

c. U.S. state government agencies or laboratories

\$Bil.	Mil.	Thou.

d. Foreign government agencies or laboratories

\$Bil.	Mil.	Thou.

e. Universities, colleges, and academic researchers, including individual primary investigators

\$Bil.	Mil.	Thou.

f. Other nonprofit organizations

\$Bil.	Mil.	Thou.

g. **Total** (equals Question 1.7)

\$Bil.	Mil.	Thou.

Domestic R&D performance by type of cost

1.9

Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance), what were the amounts for the following types of cost in 2008?

a. Gross annual payroll (wages and salaries of R&D employees and officers excluding fringe benefits)

\$Bil.	Mil.	Thou.

b. Employer's cost for fringe benefits

\$Bil.	Mil.	Thou.

Include:

- Disability benefits;
- Life and medical insurance;
- Paid holidays, time off benefits, vacation, annual, sick, and maternity leave;
- Retirement benefits, pension, and social security contributions.

c. Temporary staffing and leased employees

\$Bil.	Mil.	Thou.

d. Expensed equipment

\$Bil.	Mil.	Thou.

e. Materials and supplies (both those purchased and those withdrawn from inventory)

\$Bil.	Mil.	Thou.

f. Lease and rental payments

\$Bil.	Mil.	Thou.

g. Depreciation on R&D property and equipment

\$Bil.	Mil.	Thou.

Include:

- Depreciation and amortization against property and equipment acquired since the beginning of the year that was sold or retired during the year and not in service at the end of the year;

h. Stock option expense

\$Bil.	Mil.	Thou.

i. All other costs

\$Bil.	Mil.	Thou.

j. **Total** (equals Question 1.5, row a, column 2)

\$Bil.	Mil.	Thou.

R&D by business segment (Worldwide expense, Domestic expense and performance)

1.10 What were the amounts of Worldwide R&D expense, Domestic R&D expense, and Domestic R&D performance for each business segment listed or amended on page 4 of this form?

R&D expense by business segment should reflect the R&D costs incurred on behalf of or for the benefit of each business segment. R&D that is applicable to more than one segment should be allocated to those segments on a reasonable basis. Allocation in proportion to operating revenues is acceptable unless some alternative allocation basis is more appropriate.

	Business segment code (see page 4)	Worldwide R&D expense			Domestic R&D expense			Domestic R&D performance		
		\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
a.									
b.									
c.									
d.									
e.									
f.									
g.									
h.									
i.	(Less eliminations)									
j.	Total									

Sales and operating revenues by business segment (Worldwide and Domestic)

1.11 What were the amounts of Worldwide net sales and operating revenues and Domestic net sales and operating revenues for each business segment listed or amended on page 4 of this form?

	Business segment code (see page 4)	Worldwide sales and revenues			Domestic sales and revenues		
		\$Bil.	Mil.	Thou.	\$Bil.	Mil.	Thou.
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.	(Less eliminations)						
j.	Total						

Domestic R&D performance by state

1.12 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance), what were the amounts performed by state (including D.C.) in 2008?

	\$Bil.	Mil.	Thou.
Alabama			
Alaska			
Arizona			
Arkansas			
California			
Colorado			
Connecticut			
Delaware			
District of Columbia ...			
Florida			
Georgia			
Hawaii			
Idaho			
Illinois			
Indiana			
Iowa			
Kansas			
Kentucky			
Louisiana			
Maine			
Maryland			
Massachusetts			

	\$Bil.	Mil.	Thou.
Michigan			
Minnesota			
Mississippi			
Missouri			
Montana			
Nebraska			
Nevada			
New Hampshire			
New Jersey			
New Mexico			
New York			
North Carolina			
North Dakota			
Ohio			
Oklahoma			
Oregon			
Pennsylvania			
Rhode Island			
South Carolina			
South Dakota			
Tennessee			

QUESTION CONTINUES ON NEXT PAGE

Domestic R&D performance by state (continued)

1.12 (continued)

	\$Bil.	Mil.	Thou.
Texas			
Utah			
Vermont			
Virginia			

	\$Bil.	Mil.	Thou.
Washington			
West Virginia			
Wisconsin			
Wyoming			

Total (equals
Question 1.5,
row a, column 2)

\$Bil.	Mil.	Thou.

Largest Domestic R&D location

1.13 At what Domestic location did this company perform the largest amount of R&D, in terms of dollars, in 2008?

Address 1

Address 2

City

State

ZIP

1.14 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance), What percentage was performed at the location identified in Question 1.13?

 %

Domestic capital expenditures for R&D by type

1.15 What was the amount of this company's capital expenditures attributable to Domestic R&D operations for each of the following categories in 2008?

- a. Structures (new construction, improvements, and capitalized repairs)
- b. Equipment
- c. Capitalized Software
- d. All other capital expenditures.....
- e. **Total**

\$Bil.	Mil.	Thou.
\$Bil.	Mil.	Thou.
\$Bil.	Mil.	Thou.
\$Bil.	Mil.	Thou.
\$Bil.	Mil.	Thou.

Projected R&D expense

1.16 What is this company's projected Worldwide R&D expense for 2009?

\$Bil.	Mil.	Thou.

1.17 Of the amount reported in Question 1.16 (projected 2009 R&D), what is the expected amount for the following categories?

- a. R&D performed by your company's domestic operations
- b. R&D performed by your company's foreign operations
- c. External R&D (R&D performed by parties not owned or controlled by this company such as contract research organizations, universities, or government labs)
- d. **Total**

\$Bil.	Mil.	Thou.
\$Bil.	Mil.	Thou.
\$Bil.	Mil.	Thou.
\$Bil.	Mil.	Thou.

Name of person to contact regarding this section

Title

Telephone

Area code	Number	Extension
	-	

Fax

Area code	Number	Extension
	-	

E-mail address

Date completed

Month	Day	Year

END OF SECTION 1

SECTION 2 – HUMAN RESOURCES

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- or part-time.

Who should answer this section?

Personnel familiar with human resources concepts and with access to records related to this company's employees should complete this section. Refer to page 1 for definition of R&D.

What is the reporting unit?

Report data for your company, including all subsidiaries and divisions. Include operations of subsidiary companies, where there is more than 50 percent ownership, as well as companies that your company has the power to direct or cause the direction of management and policies.

What are R&D employees?

R&D employees include employees working on R&D projects, R&D managers, administrators, clerical staff, and interns.

R&D employees do not include staff providing indirect support such as security guards and cafeteria workers. Leased employees, temps, and on-site consultants should not be counted as R&D employees.

What is a full time equivalent (FTE)?

A full time equivalent is an adjusted count for employees who do not work full time or for employees who do not work on R&D activities full time. For example, an employee who works half-time would be counted as one employee on a headcount basis but as one-half (1/2) an FTE employee. The number of FTEs and the headcount may differ for your company.

Does it cover my worldwide employees?

Yes, we include questions about your worldwide employees as well as those employed in the United States.

What does the term "Domestic" mean?

The term "domestic" refers to the 50 United States and the District of Columbia only.

Are estimates acceptable?

Please report all items to the best of your ability. Reasonable estimates are acceptable.

What time period should be reported?

Report data for calendar year 2008, if possible.

Worldwide employees (including Domestic)

- 2.1** What was the number of all employees working at this company for the pay period that included March 12, 2008? (Enter 0 if none)

Include:

- For the Domestic employees, all employees whose payroll was reported on IRS Form 941, Employer's Quarterly Federal Tax Return
- Number of employees in all activities during the pay period that included March 12, 2008
- Persons on paid sick leave, paid holidays, and paid vacations during the pay period that included March 12, 2008

Worldwide R&D employees by occupation and gender

- 2.2** Of the employees reported in Question 2.1 (Worldwide employees), what was the number of employees who worked on R&D activities by the following types of occupation and gender?

Include:

- R&D managers, administrators, clerical staff, and interns

Exclude:

- Staff providing indirect support such as security guards and cafeteria workers
- Leased employees, temps, and on-site consultants

	Female employees	Male employees	Total employees
a. R&D scientists and their managers (Enter 0 if none)	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. R&D engineers and their managers (not already reported in row a) (Enter 0 if none)	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. R&D technicians and technologists (Enter 0 if none)	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. R&D support staff (clerical and other) (Enter 0 if none)	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. Total R&D employees	<input type="text"/>	<input type="text"/>	<input type="text"/>

Worldwide R&D employees by educational attainment

- 2.3** Of the total R&D employees reported in Question 2.2, row e, column 3 (Total Worldwide R&D employees), what was the number of employees by their highest level of educational attainment?

a. College level degrees below the PhD level (Enter 0 if none).....	<input type="text"/>
b. PhD or equivalent (Enter 0 if none)	<input type="text"/>
c. All other (Enter 0 if none).....	<input type="text"/>
d. Total R&D employees (equals Question 2.2, row e, column 3).....	<input type="text"/>

Domestic employees

2.4

Of the employees reported in Question 2.1 (Worldwide employees), what was the number of Domestic employees working at this company for the pay period that included March 12, 2008? (Enter 0 if none)

Include:

- Include all employees whose payroll was reported on IRS Form 941, Employer's Quarterly Federal Tax Return
- Persons on paid sick leave, paid holidays, and paid vacations during the pay period that includes March 12, 2008

Domestic R&D employees by occupation and gender

2.5

Of the number reported in Question 2.4 (Domestic employees), what was the number of employees who worked on R&D activities, by the following types of occupation and gender?

	Female employees	Male employees	Total employees
a. R&D scientists and their managers (Enter 0 if none)	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. R&D engineers and their managers (not already reported in row a) (Enter 0 if none)	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. R&D technicians and technologists (Enter 0 if none)	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. R&D support staff (clerical and other) (Enter 0 if none)	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. Total R&D employees	<input type="text"/>	<input type="text"/>	<input type="text"/>

Domestic R&D employees by educational attainment

2.6

Of the number reported in Question 2.5, row e, column 3 (Total Domestic R&D employees), what was the number of employees by their highest level of educational attainment?

a. College level degrees below the PhD level (Enter 0 if none)	<input type="text"/>
b. PhD or equivalent (Enter 0 if none)	<input type="text"/>
c. All other (Enter 0 if none)	<input type="text"/>
d. Total R&D employees (equals Question 2.5, row e, column 3)	<input type="text"/>

Domestic R&D employees employed under a visa

- 2.7** Of the number reported in Question 2.5, row e, column 3 (Domestic R&D employees), what was the number of R&D employees who were employed under a visa (e.g., H-1B, L-1, etc.)? (Enter 0 if none)

Domestic R&D full-time equivalents (FTEs)

- 2.8** What was the number of Domestic full-time equivalents (FTEs) engaged in R&D activities during 2008?

A full time equivalent is an adjusted count for employees who do not work full time or for employees who do not work on R&D activities full time. For example, an employee who works half-time would be counted as one employee on a headcount basis but as one-half (1/2) an FTE employee. The number of FTEs and the headcount may differ for your company.

- 2.9** Of the number reported in Question 2.8 (Domestic FTEs), what was the number of FTEs engaged in R&D activities funded by U.S. Federal Government grants or contracts during 2008?

Name of person to contact regarding this section				Title			
	Area code	Number	Extension		Area code	Number	Extension
Telephone		-		Fax		-	
						Month	Day
E-mail address				Date completed			Year

END OF SECTION 2

SECTION 3 – R&D MANAGEMENT AND STRATEGY

What does this section cover?

This section requests information about the characteristics of this company's R&D expenses (as reported in Section 1).

Who should answer this section?

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

What is the reporting unit?

Report data for your company, including all subsidiaries and divisions. Include operations of subsidiary companies, where there is more than 50 percent ownership, as well as companies that your company has the power to direct or cause the direction of management and policies.

This section requests information about your company's R&D at multiple levels of detail: for your global 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 segment. The questions in this section provide detailed definitions of these terms and clarifying examples.

What is the difference between *R&D expense* and *R&D performance*?

This section uses two different concepts to collect information about your company's R&D: an accounting concept (*R&D expense*) and a physical concept (*R&D performance*). The amount of R&D reported using these two concepts might differ.

Report ***R&D expense*** using your company's accounting definitions of R&D. Examples of accounting standards commonly used by companies include the Financial Accounting Standards Board (FASB) Statement of Accounting Standards No. 2 (Accounting for Research and Development Costs) and Section 1.174 of the U.S. Code of Federal Regulations (Title 26, Internal Revenue) which defines R&D for tax filing purposes.

Exclude:

- R&D from acquired companies prior to acquisition (in-process R&D)
- Costs for routine product testing, quality control, and technical services
- Work funded or paid for by parties not owned or controlled by your company (these costs are reported in Section 4).

Report ***R&D performance*** based on the location where R&D was carried out.

Exclude:

- R&D performed for your company by external parties not owned or controlled by your company such as contract research organizations, universities, and federal laboratories.

What does the term "Domestic" mean?

The term "Domestic" refers to the 50 United States and the District of Columbia only.

Are estimates acceptable?

Please report all items to the best of your ability. Reasonable estimates are acceptable.

Report all dollar amounts rounded to the nearest thousands.

	\$Bil.	Mil.	Thou.
Example: If figure is \$179,125,628.00 report:		179	126

What time period should be reported?

Report data for calendar year 2008, if possible.

Worldwide R&D expense directed toward new business areas

- 3.1** Of the amount reported in question 1.1 (Worldwide R&D expense in 2008), what percentage was directed toward business areas in which this company had no revenues prior to 2008? (Enter 0 if none)

Example: Company ABC is an automobile manufacturer. In 2008 it began a project to develop the company's first motorcycle. Since ABC has never manufactured motorcycles in the past, it reports the R&D directed to the motorcycle project in this question.

%

Worldwide R&D expense involving science/technology new to this company

- 3.2** Of the amount reported in question 1.1 (Worldwide R&D expense in 2008), what percentage involved science/technology that had not been used by this company in other projects prior to 2008? (Enter 0 if none)

Example: Company ABC is an automobile manufacturer. In 2008 it began to explore the potential use of hydrogen fuel cell technology in its vehicles. Since ABC had no experience with this technology prior to 2008 it reports its R&D in this area in this question.

%

Worldwide R&D expense both directed toward new business areas and involving science/technology new to this company

- 3.3** Of the amount reported in question 1.1 (Worldwide R&D expense in 2008), what percentage was both directed toward new business areas for this company and involved science/technology new to this company? (Enter 0 if none)

Example: Company ABC is an automobile manufacturer. In 2008 it began a project to develop the company's first motorcycle. At the same time, ABC begins to explore the potential use of hydrogen fuel cell technology in its vehicles—including motorcycles. Since motorcycle manufacturing is a new business area for ABC and the company had no prior experience with hydrogen fuel cell technology prior to 2008, it would reports the hydrogen fuel cell R&D related to its motorcycle project in this question.

%

Worldwide R&D expense in science/technology new to company's market(s)

- 3.4** Of the amount reported in question 1.1 (Worldwide R&D expense in 2008), what percentages were in the following categories in relation to the market(s) in which this company operates?

- a. R&D in science/technology **new** to the marketplace %
- b. R&D to improve upon, replicate, or adopt science/technology currently in use in the marketplace %
- c. **Total** **100%**



Worldwide R&D projects

3.5 As of January 1, 2008, how many R&D projects funded by this company (included in the R&D expense figure reported in question 1.1) were active Worldwide? (Enter 0 if none)

3.6 How many new R&D projects funded by this company were started in 2008 Worldwide? (Enter 0 if none)

3.7 In 2008, how many R&D projects funded by this company moved from R&D into production or marketing Worldwide? (Enter 0 if none)

3.8 Of the amount reported in question 1.1 (Worldwide R&D expense in 2008), what percentage was associated with the single largest R&D project funded by this company? (Enter 0 if none) %

Worldwide R&D partnerships

3.9 Of the amount reported in Question 1.1 (Worldwide R&D expense in 2008), what percentage was devoted to partnerships with the following types of organizations?

R&D partnerships are defined here as agreements through which two or more parties pool resources and expertise to undertake R&D and share in any resulting intellectual property. R&D partnerships involve shared risk and shared reward.

NOTE: Items may not total 100%.

a. For-profit companies (Enter 0 if none) %

b. U.S. federal agencies or laboratories (Enter 0 if none) %

c. Universities, colleges, and academic researchers, including individual primary investigators (Enter 0 if none) %

d. Other nonprofit organizations (Enter 0 if none) %

e. Other (please specify) (Enter 0 if none) %

3.10 In 2008, how many new R&D partnerships did your company enter into? (Enter 0 if none)

Worldwide R&D partnerships (cont.)

3.11 Of the amount reported in Question 3.10 (new R&D partnerships), what percentage involved partnerships with the following types of organizations?

- a. For-profit companies (Enter 0 if none) %
- b. U.S. federal agencies or laboratories (Enter 0 if none) %
- c. Universities, colleges, and academic researchers, including individual primary investigators (Enter 0 if none) %
- d. Other organizations (Enter 0 if none) %
- e. **Total** **100%**

3.12 Of the amount reported in Question 3.10 (new R&D partnerships), what percentage involved partnerships with the following types of organizations?

- a. Customers (Enter 0 if none) %
- b. Vendors/suppliers (Enter 0 if none) %
- c. Competitors (Enter 0 if none) %
- d. Other organizations (Enter 0 if none) %
- e. **Total** **100%**

External R&D characteristics

IF EXTERNAL R&D EXPENSES (QUESTION 1.7) = 0 THEN SKIP TO QUESTION 3.17

3.13 Of the amount reported in Question 1.7 (Worldwide external R&D expenses in 2008), what percentage was for the following categories according to this company's primary objective for the R&D?

External R&D expenses are expenses for R&D performed by other parties not owned or controlled by your company such as contract research organizations, universities, or government labs.

- a. Research (planned, systematic pursuit of new knowledge or understanding) (Enter 0 if none)..... %
- b. Development of new or significantly improved products, services, or processes (Enter 0 if none)..... %
- c. **Total** **100%**

External R&D characteristics (continued)

3.14 Of the amount reported in Question 3.13, row a (Research), what percentage was for the following categories according to this company's primary objective for the research?

- a. Applied research aimed at solving a specific problem or meeting a specific, recognized need (Enter 0 if none) %
- b. Basic research aimed at acquiring new knowledge or understanding without a specific application or use in view (Enter 0 if none) %
- c. **Total** **100%**

3.15 Of the amount reported in Question 1.7 (Worldwide external R&D expenses in 2008), what percentage was for clinical trials of medical products? (Enter 0 if none)

%

3.16 Of the amount reported in Question 1.7 (Worldwide external R&D expenses in 2008), what percentage was for the production of prototypes? (Enter 0 if none)

%

Domestic R&D performance characteristics

If this company did not perform any R&D in the U.S. in 2008 then skip to Question 3.36

3.17 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was for the following categories according to this company's primary objective for the R&D?

- a. Research (planned, systematic pursuit of new knowledge or understanding) (Enter 0 if none) %
- b. Development of new or significantly improved products, services, or processes (Enter 0 if none) %
- c. **Total** **100%**

3.18 Of the amount reported in Question 3.17, row a (Domestic research), what percentage was for the following categories according to this company's primary objective for the research?

- a. Applied research aimed at solving a specific problem or meeting a specific, recognized need (Enter 0 if none) %
- b. Basic research aimed at acquiring new knowledge or understanding without a specific application or use in view (Enter 0 if none) %
- c. **Total** **100%**

Domestic R&D performance directed toward new business areas

- 3.19** Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was directed toward business areas in which this company had no revenues prior to 2008? (Enter 0 if none)

Example: Company ABC is an automobile manufacturer. In 2008 it began a project in its U.S. R&D facility to develop the company's first motorcycle. Since ABC has never manufactured motorcycles in the past, it reports the R&D directed to the motorcycle project in this question.

 %

Domestic R&D performance involving science/technology new to this company

- 3.20** Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was involved science/technology that had not been used by this company in other projects prior to 2008? (Enter 0 if none)

Example: Company ABC is an automobile manufacturer. In 2008 it began to explore the potential use of hydrogen fuel cell technology in its vehicles at its U.S. R&D facility. Since ABC had no experience with this technology prior to 2008 it reports its R&D in this area in this question.

 %

Domestic R&D performance both directed toward new business areas and involving science/technology new to this company

- 3.21** Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was both directed toward new business areas for this company and involved science/technology new to this company? (Enter 0 if none)

Example: Company ABC is an automobile manufacturer. In 2008 it began a project at its U.S. R&D facility to develop the company's first motorcycle. At the same time, ABC begins to explore the potential use of hydrogen fuel cell technology in its vehicles—including motorcycles. Since motorcycle manufacturing is a new business area for ABC and the company had no prior experience with hydrogen fuel cell technology prior to 2008, it would reports the hydrogen fuel cell R&D related to its motorcycle project in this question.

 %

Domestic R&D in science/technology new to company's market(s)

- 3.22** Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was in the following categories in relation to the market(s) in which this company operates?

- | | | |
|--|----------------------|-------------|
| a. R&D in science/technology new to the marketplace | <input type="text"/> | % |
| b. R&D to improve upon, replicate, or adopt science/technology currently in use in the marketplace | <input type="text"/> | % |
| c. Total | | 100% |

Domestic R&D performance by area of application

3.23 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage had defense applications including military applications and general security-related R&D? (Enter 0 if none)

Example: Company DEF produces mobile surgical units for military use. All of DEF's R&D is devoted to improving these products. DEF reports 100% for this question.

 %

3.24 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage had health and medicine applications? (Enter 0 if none)

Example: Company DEF produces mobile surgical units for military use. All of DEF's R&D is devoted to improving these products. DEF reports 100% for this question.

 %

3.25 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage had energy applications including energy production, distribution, storage, and efficiency? (Enter 0 if none)

Exclude:

- R&D related to prospecting

Example: Company XYZ is a semiconductor manufacturer. Its products are not designed specifically for energy applications, but it devotes ten percent of its R&D to reduce the energy consumption of its products. XYZ reports ten percent for this question.

 %

3.26 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage had environmental protection applications including pollution abatement R&D? (Enter 0 if none)

 %

3.27 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage had agricultural applications? (Enter 0 if none)

 %

Domestic R&D performance by technology focus / nature of R&D

3.28 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentages were for the following types of software?

NOTE: Total may not equal 100%

- a. Software as final product (Enter 0 if none) %
- b. Software embedded in other projects (Enter 0 if none) %
- c. Other (please specify) (Enter 0 if none) %
-
- d. **Total** software R&D (Enter 0 if none) %

3.29 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was for the development of new or improved processes? (Enter 0 if none)

%

3.30 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was for clinical trials of medical products? (Enter 0 if none)

%

3.31 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was for the production of prototypes? (Enter 0 if none)

%

3.32 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was for the operation of pilot plants? (Enter 0 if none)

%

3.33 Of the amount reported in Question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was for biotechnology (the use of cellular and bio-molecular processes to solve problems or make useful products) R&D? (Enter 0 if none)

%

3.34 Of the amount reported in question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was for nanotechnology (science and technology involving work at the nanometer scale) R&D? (Enter 0 if none)

%

Domestic R&D performance by technology focus / nature of R&D (continued)

- 3.35** Of the amount reported in question 1.5, row a, column 2 (Domestic R&D performance in 2008), what percentage was for social sciences R&D (the application of scientific methods to the study of the human aspects of the world)? (Enter 0 if none)

 %

Include:

- R&D in anthropology, economics, political science, psychology, and sociology

Activities with academia

- 3.36** Did this company perform any of the following activities with universities, students, or academic faculty in 2008?

- 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 post-doctoral fellows in science or engineering for at least one month ... Yes No
- d. Scientists or engineers from this company served as visiting scientists or engineers at a college or university for at least one month..... Yes No

Company characteristics

- 3.37** Are the following statements true for this company?

- a. This company has been in business for 5 or **fewer** years as of Dec. 31, 2008. Yes No
- b. This company was founded to commercialize science/technology discovered or developed by academic researchers Yes No
- c. This company had establishments located in science parks in 2008 Yes No
- d. This company received venture capital funding in 2008 Yes No

Name of person to contact regarding this section				Title			
	Area code	Number	Extension		Area code	Number	Extension
Telephone		-		Fax		-	
				Date completed		Month	Day
E-mail address						Year	

END OF SECTION 3

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SECTION 4 – R&D FUNDED OR PAID FOR BY OTHERS

What does this section cover?

This section requests information about R&D this company performs that is paid for by other parties not owned or controlled by this company (funded R&D). Because the costs for this work are not paid for by this company they are not accounted for as R&D expenses, even though the nature of the work may be identical to other activities that are accounted for as R&D expenses by this company.

Who should answer this section?

Personnel familiar with this company's funded R&D and with access to records related to this company's funded R&D activities should complete this section.

What is the reporting unit?

Report data for your company, including all subsidiaries and divisions. Include operations of subsidiary companies, where there is more than 50 percent ownership, as well as companies that your company has the power to direct or cause the direction of management and policies.

This section requests information about your company's funded R&D at multiple levels of detail: for your global 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 segment. The questions in this section provide detailed definitions of these terms and clarifying examples.

What is R&D performance?

This section requests information about funded R&D carried out by your company. Report R&D performance based on the location where the R&D was carried out.

Exclude:

- Costs for routine product testing, quality control, and technical services
- Work funded or paid for by parties not owned or controlled by your company such as contract research organizations, universities, and federal laboratories.
- Payments in excess of the actual cost of the R&D (such as profits or fees)

What does the term "Domestic" mean?

The term "Domestic" refers to the 50 United States and the District of Columbia only.

Are estimates acceptable?

Please report all items to the best of your ability. Reasonable estimates are acceptable.

Report all dollar amounts rounded to the nearest thousands.

	\$Bil.	Mil.	Thou.
Example: If figure is \$179,125,628.00 report:		179	126

What time period should be reported?

Report data for calendar year 2008, if possible.

Worldwide R&D funded or paid for by others (funded R&D)

4.1 What was the cost of R&D performed by this company Worldwide (including Domestic) in 2008 that was funded or paid for by other parties not owned or controlled by this company?

Include:

- Cost of sales for contract R&D services provided to other parties not owned or controlled by this company
- Costs for R&D supported by grants from government agencies and private foundations
- Costs paid for by others for the development, production, and testing of prototypes prior to their introduction to the market
- Costs paid for by others for phase I - III clinical trials of medical products

Exclude:

- Payments in excess of the actual cost of the R&D (such as profits or fees)
- Costs accounted for as R&D expenses by this company (reported in Section 1)
- Costs for routine testing of products currently on the market
- Costs for phase IV clinical trials or other post-marketing testing performed for medical products

\$Bil.	Mil.	Thou.

4.1a Was the amount entered in **4.1** greater than zero?

- Yes → Go to **4.2**
- No → Skip to **SECTION 5**

Worldwide funded R&D projects

4.2 As of January 1, 2008, how many R&D projects that were funded or paid for by others were active Worldwide? (Enter 0 if none)

4.3 How many R&D projects that were funded or paid for by others were started in 2008 Worldwide? (Enter 0 if none)

4.4 In 2008, what were the costs associated with the single largest R&D project funded or paid for by others Worldwide? (Enter 0 if none)

\$Bil.	Mil.	Thou.

Domestic R&D performance funded by others

4.5 What was the cost of Domestic R&D performed by this company in 2008 that was funded or paid for by other parties not owned or controlled by this company?

Include:

- Cost of sales for contract R&D services provided to other parties not owned or controlled by this company
- Costs for R&D supported by grants from government agencies and private foundations
- Costs paid for by others for the development, production, and testing of prototypes prior to their introduction to the market
- Costs paid for by others for phase I - III clinical trials of medical products

\$Bil.	Mil.	Thou.

Exclude:

- Payments in excess of the actual cost of the R&D (such as profits or fees)
- Costs accounted for as R&D expenses by this company (reported in Section 1)
- Costs for routine testing of products currently on the market
- Costs for phase IV clinical trials or other post-marketing testing performed for medical products

Domestic R&D performance funded by others by business segment

4.6 What were the costs of Domestic R&D performance funded or paid for by others for each business segment listed or amended on page 4 of this form?

Business segment code
(see worksheet on page 4)

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.
- i. (Less eliminations)
- j. **TOTAL** (equals question 4.5)

\$Bil.	Mil.	Thou.
\$Bil.	Mil.	Thou.

\$Bil.	Mil.	Thou.

Domestic R&D performance funded by others by type of cost

4.7

Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what were the amounts for the following types of costs in 2008?

a. Gross annual payroll (wages and salaries of R&D employees and officers excluding fringe benefits).....

\$Bil.	Mil.	Thou.

b. Employer's cost for fringe benefits.....

\$Bil.	Mil.	Thou.

Include:

- Disability benefits;
- Life and medical insurance;
- Paid holidays, time off benefits, vacation, annual, sick, and maternity leave;
- Retirement benefits, pension, and social security contributions.

c. Temporary staffing and leased employees.....

\$Bil.	Mil.	Thou.

d. Expensed equipment.....

\$Bil.	Mil.	Thou.

e. Materials and supplies (both those purchased and those withdrawn from inventory).....

\$Bil.	Mil.	Thou.

f. Lease and rental payments.....

\$Bil.	Mil.	Thou.

g. Depreciation on R&D property and equipment.....

\$Bil.	Mil.	Thou.

Include:

- Depreciation and amortization against property and equipment acquired since the beginning of the year that was sold or retired during the year and not in service at the end of the year;

h. Stock option expense.....

\$Bil.	Mil.	Thou.

i. All other costs.....

\$Bil.	Mil.	Thou.

j. **Total** (equals question 4.5)

\$Bil.	Mil.	Thou.

Domestic R&D performance funded by others by type of funding

4.8

Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what were the amounts received from each of the following types of agreements? (Enter 0 if none)

a. Contracts.....

\$Bil.	Mil.	Thou.

b. Grants, reimbursements, and all other agreements.....

\$Bil.	Mil.	Thou.

c. **Total** (equals question 4.5).....

\$Bil.	Mil.	Thou.

Domestic R&D performance funded by others by source of funding

4.9

Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what were the amounts received from the following types of organizations? (Enter 0 if none)

	\$Bil.	Mil.	Thou.
a. For-profit companies.....			
1. Foreign companies			
b. U.S. federal government agencies – Include prime contracts and subcontracts.....			
c. State and local governments – Include prime contracts and subcontracts.....			
d. All other organizations (including foreign governments).....			
1. Foreign organizations			
e. Total (equals question 4.5).....			

Domestic R&D performance funded by others by state

4.10

Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what were the costs by state (including D.C.)?

	\$Bil.	Mil.	Thou.		\$Bil.	Mil.	Thou.
Alabama.....				Idaho.....			
Alaska.....				Illinois.....			
Arizona.....				Indiana.....			
Arkansas.....				Iowa.....			
California.....				Kansas.....			
Colorado.....				Kentucky.....			
Connecticut.....				Louisiana.....			
Delaware.....				Maine.....			
District of Columbia.....				Maryland.....			
Florida.....				Massachusetts.....			
Georgia.....				Michigan.....			
Hawaii.....							

QUESTION CONTINUES ON NEXT PAGE

Domestic R&D performance funded by others by state (continued)

4.10 (continued)

	\$Bil.	Mil.	Thou.
Minnesota.....			
	\$Bil.	Mil.	Thou.
Mississippi.....			
	\$Bil.	Mil.	Thou.
Missouri.....			
	\$Bil.	Mil.	Thou.
Montana.....			
	\$Bil.	Mil.	Thou.
Nebraska.....			
	\$Bil.	Mil.	Thou.
Nevada.....			
	\$Bil.	Mil.	Thou.
New Hampshire.....			
	\$Bil.	Mil.	Thou.
New Jersey.....			
	\$Bil.	Mil.	Thou.
New Mexico.....			
	\$Bil.	Mil.	Thou.
New York.....			
	\$Bil.	Mil.	Thou.
North Carolina.....			
	\$Bil.	Mil.	Thou.
North Dakota.....			
	\$Bil.	Mil.	Thou.
Ohio.....			
	\$Bil.	Mil.	Thou.
Oklahoma.....			

	\$Bil.	Mil.	Thou.
Oregon.....			
	\$Bil.	Mil.	Thou.
Pennsylvania.....			
	\$Bil.	Mil.	Thou.
Rhode Island.....			
	\$Bil.	Mil.	Thou.
South Carolina			
	\$Bil.	Mil.	Thou.
South Dakota.....			
	\$Bil.	Mil.	Thou.
Tennessee.....			
	\$Bil.	Mil.	Thou.
Texas.....			
	\$Bil.	Mil.	Thou.
Utah			
	\$Bil.	Mil.	Thou.
Vermont.....			
	\$Bil.	Mil.	Thou.
Virginia.....			
	\$Bil.	Mil.	Thou.
Washington			
	\$Bil.	Mil.	Thou.
West Virginia.....			
	\$Bil.	Mil.	Thou.
Wisconsin.....			
	\$Bil.	Mil.	Thou.
Wyoming.....			
	\$Bil.	Mil.	Thou.
Total (equals question 4.5).....	\$Bil.	Mil.	Thou.

\$Bil.	Mil.	Thou.

Characteristics of domestic R&D performance funded by others

4.11 Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what are the percentages for the following categories according to this company's primary objective for the R&D?

- a. Research (planned, systematic pursuit of new knowledge or understanding)
(Enter 0 if none) %
- b. Development of new or significantly improved products, services, or processes
(Enter 0 if none) %
- c. **Total** **100 %**

4.12 Of the amount reported in Question 4.11, row a (Research funded or paid for by others), what are the percentages for the following categories according to this company's primary objective for the research?

- a. Applied research aimed at solving a specific problem or meeting a specific, recognized need (Enter 0 if none)..... %
- b. Basic research aimed at acquiring new knowledge or understanding without a specific application or use in view (Enter 0 if none)..... %
- c. **Total** **100 %**

Domestic R&D performance funded by others by type of R&D

4.13 Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what was the percentage for clinical trials (phases 1 through 3) of medical products? (Enter 0 if none) %

4.14 Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what was the percentage for the production of prototypes? (Enter 0 if none) %

Domestic R&D performance funded by others by area of application

4.15 Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what percentage had defense applications including military applications and general security-related R&D? (Enter 0 if none)

Example: Company DEF produces mobile surgical units for military use. All of DEF's funded R&D is devoted to improving these products. DEF reports 100% for this question because all of this R&D had defense applications.

 %

4.16 Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what percentage had health and medicine applications? (Enter 0 if none)

Example: Company DEF produces mobile surgical units for military use. All of DEF's funded R&D is devoted to improving these products. DEF reports 100% for this question because of this R&D had medical applications.

 %

4.17 Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what percentage had energy applications including energy production, distribution, storage, and efficiency? (Enter 0 if none)

Exclude:

- R&D related to prospecting

Example: Company XYZ is a semiconductor manufacturer that receives R&D funding from the federal government. Half of XYZ's funded R&D is focused on finding ways to reduce the energy consumption of semiconductor products. XYZ reports 50% for this question.

 %

4.18 Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what percentage had environmental protection applications including pollution abatement R&D? (Enter 0 if none)

 %

4.19 Of the amount reported in Question 4.5 (Domestic R&D performance funded or paid for by others), what percentage had agricultural applications? (Enter 0 if none)

 %

Projected R&D funded or paid for by others

4.24 What are this company's worldwide projected costs in 2009 for R&D funded or paid for by others? (Enter 0 if none)

\$Bil.	Mil.	Thou.

4.25 What are this company's projected costs in 2009 for Domestic R&D that is funded or paid for by others? (Enter 0 if none)

\$Bil.	Mil.	Thou.

Name of person to contact regarding this section				Title			
	Area code	Number	Extension		Area code	Number	Extension
Telephone		-		Fax		-	
					Month	Day	Year
E-mail address				Date completed			

END OF SECTION 4

SECTION 5 – INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER

What does this section cover?

This section requests information about your company's intellectual property (IP) and technology transfer activities.

Who should answer this section?

Personnel familiar with knowledge of this company's patents, licensing, and other IP-related activities.

What is the reporting unit?

Report data for your company, including all subsidiaries and divisions. Include operations of subsidiary companies, where there is more than 50 percent ownership, as well as companies that your company has the power to direct or cause the direction of management and policies.

This section requests information about your company's R&D at multiple levels of detail: for your global 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 segment. The questions in this section provide detailed definitions of these terms and clarifying examples.

What does the term "Domestic" mean?

The term "Domestic" refers to the 50 United States and the District of Columbia only.

Are estimates acceptable?

Please report all items to the best of your ability. Reasonable estimates are acceptable.

What time period should be reported?

Report data for calendar year 2008, if possible.

Patents

5.1 In 2008, did this company own, apply for, or have pending utility patents (patents for invention) from the U.S. Patent and Trademark Office (USPTO)?

Yes -> Continue with question **5.2**

No -> Skip to question **5.9**

5.2 How many U.S. utility patents did this company apply for in 2008?
(Enter 0 if none)

5.3 For what percentage of the patent applications reported in question 5.2 does this company plan to apply for patents in foreign jurisdictions or already possess patents in foreign jurisdictions? (Enter 0 if none)

 %

5.4 For what percentage of the patent applications reported in question 5.2 did the innovation originate outside of this company's organized R&D activities?
(Enter 0 if none)

 %

5.5 How many U.S. utility patents were issued to this company in 2008 by the USPTO? (Enter 0 if none)

5.6 What percent of all company inventions considered for patenting in 2008 resulted in patent applications? (Enter 0 if none)

 %

Licensing patents to outside parties

5.7 In 2008, how many new agreements did this company enter into to license patents to parties not owned or controlled by this company? (Enter 0 if none)

5.8 If any of the licensing agreements reported in question 5.7 involved royalty payments, what is the average royalty rate (as a percentage of gross sales) for those agreements? (Enter 0 if none)

 %

Intellectual property transfer activities

5.9 During 2008 did this company perform the following activities?

- a. Participate in technical assistance or “know-how” agreements to transfer intellectual property (IP) to another party Yes No
- b. Participate in technical assistance or “know-how” agreements to receive intellectual property (IP) from another party Yes No
- c. Transfer IP to a spin out of your company (in which the owners of your company maintain an equity stake) Yes No
- d. Receive IP from a parent company as part of a spin out (in which the owners of the parent company maintain an equity stake in your company) Yes No
- e. Acquire a controlling interest in another company for the primary purpose of acquiring their IP Yes No
- f. Participate in cross-licensing agreements (agreements in which two or more parties grant a license to each other for the exploitation of the subject-matter claimed in one or more of the patents owned by each party) Yes No
- g. Allowed free use of patents or other IP owned by this company (e.g., allowing free use of certain software patents by the open-source community) Yes No

Intellectual property protection

5.10 How important are the following types of intellectual property protection for discoveries resulting from this company's R&D?

- | | Very important | Somewhat important | Not important |
|---|--------------------------|--------------------------|--------------------------|
| a. Patents | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Trademarks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Copyrights | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Mask works (copyright protection for semiconductor products) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Trade secrets | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Name of person to contact regarding this Section				Title			
	Area code	Number	Extension		Area code	Number	Extension
Telephone		-		Fax		-	
					Month	Day	Year
E-mail address				Date completed			

END OF SECTION 5

GENERAL INFORMATION

Please complete the following questions before returning this survey.

6.1 Is the time period covered by this report a calendar year?

Yes → *Continue with next question*

No → *Enter time period covered*

From (MM/YYYY): To (MM/YYYY):

6.2 Complete the following ownership information (if you checked "Yes" to Eligibility Criteria Question C or D on page 2 you should provide this information)

Name of new owner:

EIN (9 digits)

Mailing address

City

State

ZIP

6.3 How many people were involved in the preparation of this report, including those who provided, collected, or reviewed information?

6.4 How long did it take to complete this survey, including the time spent by all employees gathering and providing this information?

Hours

Certification – *This report is substantially accurate and was prepared in accordance with the instructions*

Name of person to contact regarding this report				Title				
	Area code	Number	Extension		Area code	Number	Extension	
Telephone		-		Fax		-		
						Month	Day	Year
E-mail address				Date completed				

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

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Thank you for completing your 2008 Business Research and Development Survey.

PLEASE PHOTOCOPY THIS FORM FOR YOUR RECORDS AND RETURN THE ORIGINAL.