

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

RD-1A (01/15/2008)

# 2007 SURVEY OF INDUSTRIAL RESEARCH AND DEVELOPMENT

OMB No. 0607-0912: Approval Expires 1/31/2011

*Mail* your completed form to: U.S. CENSUS BUREAU 1201 East 10th Street Jeffersonville, IN 47132-0001

*Please read* the accompanying instructions before answering the questions.

Need help or have questions about filling out this form? **Visit** our Web site at

www.census.gov/econhelp/rd *To speak* with an analyst, call 1-800-851-2014, option "0" between 8:00 a.m. and 5:00 p.m., Eastern time, Monday through Friday.

- OR -

*Write* to the address above, include your 11-digit Identification Number (ID) printed in the mailing address.

**Option to file electronically** is located at

www.census.gov/econhelp/rd

# INFORMATION COPY DO NOT USE TO REPORT

(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. Data supplied in all items for 2007 on this form will satisfy the mandatory reporting requirements. (Title 13, U.S. Code.) Except as noted in specific questions, this report should cover your entire consolidated domestic enterprise, **including all subsidiaries** in the 50 United States and D.C. Reasonable estimates are acceptable.

This survey is conducted jointly with the National Science Foundation.

#### **RESEARCH AND DEVELOPMENT (R&D)**

R&D includes basic and applied research in the sciences and engineering. It also includes design and development of new products and processes and enhancement of existing products and processes.

R&D includes activities carried on by persons trained, either formally or by experience, in the physical sciences such as chemistry and physics, the biological sciences such as medicine, and engineering and computer science. R&D includes these activities if the purpose is to do one or more of the following things:

**1.** Pursue a planned search for **new scientific knowledge** or understanding that does not have specific immediate commercial objectives, although it may be in fields of present or potential commercial interest. (Basic research)

2. Apply the findings of basic research or other existing knowledge toward discovering new scientific knowledge that has specific commercial objectives, including work required to evaluate possible uses, with respect to new products, services, processes, or methods. (Applied research)

**3.** Systematically use the knowledge or understanding gained from research and **practical experience** in the production or **significant improvement** of products, services, processes, or methods, including the design and development of prototypes, materials, devices, and systems. (Development)

Research and development includes the activities described above whether assigned to separate R&D organizational units of the company or carried out by company laboratories and technical groups not part of an R&D organization. Reporting the R&D activities of such latter groups may require the use of estimates for some of your responses.

Activities to be **excluded** from R&D are as follows: research in social sciences or psychology, routine product testing, geological and geophysical exploration activities and technical services.

See instructions for more detail.

Did your company conduct R&D in 2007? (Mark "X" only ONE box.)

<sup>201</sup> Yes - Complete form, enter zeros where applicable, and return this form.

<sup>203</sup> No - Either call TDE to report (1-800-851-2014) OR mark the 203 box and mail the form.

**NOTE** - After reviewing **1** if you need further assistance please call 1-800-851-2014, option "0".

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orm RD-1A (01/15/2008)						Page 2
				2007		
Dolla	r figures should be rounded to				Thousand	-
If a figure is <b>\$1,025,628.79:</b> <i>Report</i> —→				1	02	6
2 What was the amount of your of shipments, operating receip of returns and allowances attributed operations in the 50 United Sta 2007? (EXCLUDE domestic intra and sales by foreign subsidiaries for sales of products and service companies, individuals, U.S. Go and foreign countries.)	ts, or revenues, net outable to domestic tes or D.C. during acompany transfers es. INCLUDE receipts ces provided to other overnment agencies,	"X" if None 0130	\$ Billion	2007 s Millions	Thousand	15
3 How many <b>employees</b> worked States or D.C. for your compan (INCLUDE number of full- and p whose payroll was reported on Service Form 941, Employer's ( Return.)	y on March 12, 2007? part-time employees Internal Revenue Quarterly Federal Tax	"X" if None 0131	N 112	umber		
employed by your company as 50 United States and D.C. durin (See Instructions for the definit						
What was the cost of R&D perf States and D.C. from each of	ormed within your company <b>i</b> the sources of funding below	n the 50 United during 2007?				
		2007	г			
A. Basic research (Activity	(1) (2) Fordered funde			er (3) Total funds		
toward the advancement of scientific knowledge	Federal funds	nonfederal fund			umns 1 +	2
without specific immediate commercial objectives.)	\$ Billions Millions Thousands	\$ Billions Millions 1 305	housands	\$ Billions	Millions	Thousands
Mark "X" if no basic research 0135		303		300		
B. Applied research (Activity directed primarily towards a specific commercial or practical objective.)						
Mark "X" if no applied	314	315		316		
research.					1 1	
<b>C. Development</b> (Activity translating research into new or improved products, services, or processes.)	324	325		326		
Mark "X" if no development 0137						
<b>D. TOTAL</b> (Add lines A						
through C.) Mark "X" if no	344	345		346		
R&D					1 1	
6 If γour company plans to		2008				
perform R&D during 2008, what is the projected cost?	(1)	(2)		_	(3)	
	Federal funds	Company and oth nonfederal fund			otal funds lumns 1 +	2
(Comparable to the 2007	\$ Billions Millions Thousands	\$ Billions Millions   1	housands	\$ Billions	Millions	Thousands
figure reported in <b>5</b> , line D.) Mark "X" if no	403	402		401		
R&D is planned						
for next vear 0139						

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**CONTINUE ON PAGE 3** 

In the set of the mailing address.         In the set of the states and bc. during 2007.         In the set of the states and bc. during 2007.         In the set of the states and bc. during 2007.         In the set of the states and bc. during 2007.         In the set of the set of the states and bc. during 2007.         In the set of th	n RD-1A (01/15/2008)									Page 3
in the 50 United States and D.C. during 2007?  (Include payments made via contracts, grants, or other agreements under which your company pays for but does not performed by others	ot shown, please enter your nber (ID) from the mailing a	11-digit l ddress.	dentifica	tion						
Include payments made via contracts, grants, or other agreements under which your company pays for but does not perform any of the R&D.)       (1)       (2)       (3)         Mark "X" if no F&D was performed by others 0140       Federal funds       Company and other nonfederal funds       Total funds Columns 1 + 2         9 and O       Not Applicable.         1) If your company funded R&D performed outside the 50 United States and D.C. during 2007, what was the cost? (Please report costs of R&D performed by subsidiaries, affiliates, or others based on your company's percentage of ownership, if any, of the based on voting stock or equivalent interest.)       S Billions       XBillions         Mark "X" if None 0nar       A. More than 50% ownership (This category includes wholly owned subsidiaries and locations.)       SBillions       S Billions         0. 0% - No company ownership       00       384         C. More than 0% but less than 10% ownership       383         0. 0% - No company ownership       383         0. 0% - No company ownership       384         C. More than 0% but less than 10% ownership       383         0. 0% - No company ownership       383         0. 0% - No company ownership       384         0. 0% - No company ownership       383         0. 0% - No company ownership       384         0. 0% - No company ownership       383         0. 0% - No company ownership	If others outside your com	oany perfo	ormed R&	<b>D</b> funded	by your co	ompany, v	vhat was th	ne cost of	the R&D p	performed
contracts, grants, or other agreements under which your company pays for but does not perform any of the R&D.]       (1)       (2)       (3)         Mark "X" if no R&D was performed by others       Image: Company and other nonfederal funds       Total funds       Columns 1 + 2         Image: Company and ther nonfederal funds       Image: Company and ther nonfederal funds       Thousands       S Billions       Millions       Thousands         Image: Company and ther nonfederal funds         Image: Company and ther no R&D was performed by others       Image: Company and ther nonfederal funds       Image: Company and ther nonfederal funds         Image: Company funded R&D performed outside the 50 United States and D.C. during 2007, what was the cost? (Please report costs of R&D performed by subsidiaries, affiliates, or others based on your company is percentage of ownership, if any, of the entity that conducted the R&D. Ownership can be based on voting stock or equivalent interest.)       Image: Selfilions       Image: Selfilions         Mark "X" if None       Image: Selfilions       Image: Selfilions       Image: Selfilions       Image: Selfilions         Mark "X" if None       Image: Selfilions       Image: Selfilions       Image: Selfilions       Image: Selfilions         Mark "X" if None       Image: Selfilions       Image: Selfilions<			2007 !			2007				
voir company pays for but does not perform any of the R&D.)       Federal funds       Columns 1 + 2         Mark "X" if no R&D was performed by others	contracts, grants, or other	(1)				(2)				
a des not perform any of the R&D.)       \$ Billions       Millions       Thousands       \$ Billions       Millions       Thousands         Mark "X" if no R&D was performed by others       0140       54       355       356         P and ③ Not Applicable.       140       55       356       356         P and ④ Not Applicable.       15 Billions       Millions       Thousands       \$ Billions       Millions       Thousands         P and ④ Not Applicable.       15 Generation of the set of the SD united States and D.C. during 2007, what was the cost? (Please report costs of R&D performed by subsidiaries, affiliates, or others based on your company's percentage of ownership, fany, of the entity that conducted the R&D. Ownership can be based on voting stock or equivalent interest.)       386         Mark "X" if None outar       386         B. 10% to 50% ownership       384         C. More than 0% but less than 10% ownership       384         D. 0% - No company ownership       384         E. TOTAL (Add lines A through D.).       389	your company pays for <b>but</b>	Federal funds		Con no	Company and other nonfederal funds					
no R&D was performed by others       Job       Job       Job         pand (2) Not Applicable.       If your company funded R&D performed outside the 50 United States and D.C. during 2007, what was the cost? (Please report costs of R&D performed by subsidiaries, affliates, or others based on your company's percentage of ownership. if any, of the entity that conducted the R&D. Ownership can be based on voting stock or equivalent interest.)       2007         Mark "X" if None       0147         A. More than 50% ownership (This category includes wholly owned subsidiaries and locations.).       Job         B. 10% to 50% ownership       Job         B. 00% - No company ownership       <		\$ Bi⊞ions	Millions	Thousands	\$ Billions	Mi∥ions	Thousands	\$ Billions	Mi⊞ions	Thousands
performed by others       Otto Applicable.         If your company funded R&D performed outside the 50 United States and D.C. during 2007, what was the cost? (Please report costs of R&D performed by subsidiaries, affiliates, or others based on your company's percentage of ownership if any, of the entity that conducted the R&D. Ownership can be based on voting stock or equivalent interest.) Mark "X" if None 0147       Image: Company and other nonfederal funds         Mark "X" if None 0147       Image: Company and other nonfederal funds         Mark "X" if None 0147       Image: Company and other nonfederal funds         Mark "X" if None 0147       Image: Company and other nonfederal funds         Mark "X" if None 0147       Image: Company and Image: Company		354			355			356		
<ul> <li>Pand Not Applicable.</li> <li>If your company funded R&amp;D performed outside the 50 United States and D.C. during 2007, what was the cost? (<i>Please report costs of R&amp;D performed by subsidiaries, affiliates, or others based on your company's percentage of ownership, if any, of the entity that conducted the R&amp;D. Ownership can be based on voting stock or equivalent interest.) <ul> <li>Mark "X" if None 0147</li> <li>A. More than 50% ownership (This category includes wholly owned subsidiaries and locations.)</li> <li>B. 10% to 50% ownership</li> <li>D. 0% - No company ownership</li> <li>E. TOTAL (Add lines A through D.).</li> </ul></i></li></ul>	performed by									
If your company funded R&D performed outside the 50 United States and D.C. during 2007, what was the cost? (Please report costs of R&D performed by subsidiaries, affiliates, or others based on your company's percentage of ownership, if any, of the entity that conducted the R&D. Ownership can be based on voting stock or equivalent interest.)       2007         A. More than 50% ownership (This category includes wholly owned subsidiaries and locations.)       Image: State Sta	others 0140									
the 50 United States and D.C. during 2007, what         was the cost? (Please report costs of R&D performed by subsidiaries, affiliates, or others based on your company's percentage of ownership, if any, of the entity that conducted the R&D. Ownership can be based on voting stock or equivalent interest.)         Mark "X" if None       1007         C. More than 50% ownership       1084         C. More than 0% but less than 10% ownership       363         D. 0% - No company ownership       363         E. TOTAL (Add lines A through D.).       369	and 9 Not Applicable.									
by subsidiaries, affiliates, or others based on your   company's percentage of ownership, if any, of the   entity that conducted the R&D. Ownership can be   based on voting stock or equivalent interest.)   Mark "X" if None   0147   A. More than 50% ownership (This category includes wholly owned subsidiaries and locations.)	If your company funded R&D	performed	outside							
company's percentage of ownership, if any, of the entity that conducted the R&D. Ownership can be based on voting stock or equivalent interest.) Company and other nonfederal funds   Mark "X" if None ona? 366   A. More than 50% ownership (This category includes wholly owned subsidiaries and locations.). 366   B. 10% to 50% ownership 364   C. More than 0% but less than 10% ownership 363   D. 0% - No company ownership 369   E. TOTAL (Add lines A through D.). 369	was the cost? (Please report of	osts of R&	D perform	ed		2007				
entity that conducted the R&D. Ownership can be based on voting stock or equivalent interest.)   Mark "X" if None oran   Mark "X" if None oran   A. More than 50% ownership (This category includes wholly owned subsidiaries and locations.)   B. 10% to 50% ownership   C. More than 0% but less than 10% ownership   D. 0% - No company ownership   E. TOTAL (Add lines A through D.).	company's percentage of owr	nership, if a	any, of the		C	ompany an	d other			
Mark "X" if None 0147   366   A. More than 50% ownership (This category includes wholly owned subsidiaries and locations.)   B. 10% to 50% ownership   C. More than 0% but less than 10% ownership   364   C. More than 0% but less than 10% ownership   363   B. 0% - No company ownership   369	entity that conducted the R&L based on voting stock or equi	). Ownersh valent inte	ip can be rest.)							
owned subsidiaries and locations.)   B. 10% to 50% ownership   C. More than 0% but less than 10% ownership   364   363   D. 0% - No company ownership   369	aacaa on ronnig coon or equ			0147						
B. 10% to 50% ownership       365         G. More than 0% but less than 10% ownership       364         D. 0% - No company ownership       363         E. TOTAL (Add lines A through D.).       369	<b>A.</b> More than 50% ownership	(This cate	gory inclu	des wholly		1 1				
C. More than 0% but less than 10% ownership	owned subsidiaries and to	cations./ .						_		
C. More than 0% but less than 10% ownership       364         363       363         D. 0% - No company ownership       363         E. TOTAL (Add lines A through D.).       369	<b>B</b> 100/ ( E00/ L'									
<ul> <li>C. More than 0% but less than 10% ownership</li></ul>	<b>B.</b> 10% to 50% ownership .					1 1		_		
D. 0% - No company ownership										
D. 0% - No company ownership	<b>C.</b> More than 0% but less tha	n 10% owr	nership .			1 1		_		
E. TOTAL (Add lines A through D.).										
E. TOTAL (Add lines A through D.).	<b>D.</b> 0% - No company owners	nip						_		
					369		1 1			
and 😰 Not Applicable.	E. TOTAL (Add lines A throu	ıgh D.).			·	1 1				
	and 😰 Not Applicable.									

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## Form RD-1A (01/15/2008)

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13	For the total R&D you reported in <b>③</b> , line D, column 3, what was the cost for each of the following types of expenses?	2007			
	was the cost for each of the following types of expenses:	Total funds			
		\$ Billions Millions Thousands			
	A. Wages and salaries of R&D personnel				
	(INCLUDE scientists and	611			
	engineers, technicians, secretaries, and other				
	personnel.) Mark "X" if None 0166				
	<b>B.</b> Fringe benefits of R&D personnel				
	(INCLUDE taxable and	621			
	nontaxable benefits, 401K plans, employers'				
	contribution to health plans.) Mark "X" if None $_{0.167}$				
	C. Materials and supplies consumed				
	(INCLUDE the cost of all purchased materials	631			
	consumed.)				
	D. Depreciation on R&D property				
	and equipment				
	(INCLUDE depreciation and amortization costs for				
	property and equipment	641			
	used for R&D during the year.)				
	<i>yean,</i>				
	E. All other R&D expenses				
	(INCLUDE R&Ds share				
	of company overhead and other expenses such				
	as utilities, books and	651			
	periodicals, and property and other taxes.)				
	F. TOTAL(Add lines A through				
	E. The sum should equal the	661			
	total reported in ❺, line D, column 3.) Mark "X" if None 0171 □				



**CONTINUE ON PAGE 5** 

14	For the total R&D you reported in ⑤, line D, column 3, what were the costs for the following areas?	2007	
	were the costs for the following areas:	Total funds	
	A. Biotechnology (The use of scientific and engineering data and techniques for	\$ Billions   Millions   Thousands	
	the study and solution of problems concerning living organisms.)		
	B. Software development (The formulation of programs, applications, routines, etc., for computers, excluding those used exclusively	7211	
	for internal company operations.) Mark "X" if None 0173		
	C. Materials synthesis and processing (The use of scientific and engineering data and techniques	7311	
	for the formulation and manipulation of new materials.) Mark "X" if None 0174	7311	
	<b>D.</b> All other areas Mark "X" if None 0175		
	E. TOTAL(Add lines A through D. The sum should equal the total reported in , line D, column 3.) Mark "X" if None 0176 □	7511	
7001			
16	For the R&D costs reported in $\mathbf{@}$ , lines A through D, what		
U	percentage involved the use of <b>nanotechnology</b> for each of the following areas?	2007 Whole percents	
		7112 %	
	A. Biotechnology Mark "X" if None 0177	7212	
	<b>B.</b> Software development <i>Mark "X" if None</i> 0178	7312	
	<b>C.</b> Materials synthesis and processing Mark "X" if None 0179	7412	
	<b>D.</b> All other areas Mark "X" if None 0180	%	

### Form RD-1A (01/15/2008)

Ρ	ag	e	6

<b>19</b> A. Does this	s report cover your entire consolidated domestic enterprise, including all U.S.
subsidiar	ries? (Mark "X" only ONE box.)
1301	Yes
1330	No - Please explain in <b>3</b> .
<b>B.</b> Was this	company owned or controlled by another company on December 31, 2007?
001	Yes - Give date acquired at right AND enter new owner name and mailing address below
	6030 Name of new owner or operator
	6031 Mailing address (Number and street, P.O. box, etc.)
	6032 City, town, village, etc. 6033 State 6034 ZIP Code
	No
CHECK ITEM - Ple likelihood of our o	ease complete the check list below BEFORE returning this form. By checking these items you will reduce the calling you to resolve an error or inconsistency.
In 2: Are sales re	eported in <b>thousands</b> of dollars?
	Yes
	Νο
In 🕄: Does your a	answer describe the number of <b>employees,</b> NOT company payroll?
	Yes
	Νο
In <b>5</b> : Does the Fe for each of the fol	ederal funds (column 1) plus Company funds (column 2) equal Total funds (column 3) llowing rows?
	A), applied research (IB), development (IC), total research and development (ID).
	Yes
	Νο
	ny of the above checks is "No," please make the necessary corrections in the appropriate item(s) or provide
an explanation in	

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If not shown, please enter your 11-digit Identification Number (ID) from the mailing address.	
20 Reporting period, location of records, and contact information	
<b>A.</b> Is the time period covered by this report a calendar year?	
0078 Yes	Month Year Month Year
0079 └── No - Enter time period covered> FROM	
<b>B.</b> Are all of your company's R&D records and data in a central	location?
0080 Yes 0086	
0081 No - How many locations?	
0085 Other - Please describe	
<b>C.</b> How many people were involved in the preparation of this re	port (INCLUDE those you
consulted who provided, collected, or reviewed information, who filled out the form.)?	even if you are the only one
<sup>0072</sup> Name of person to contact regarding this report	<sup>0073</sup> Title
Area code Number Extension	Area code Number
lelephone 0074	Month Day Year
0076 Internet e-mail address	Date completed 0069
<b>3</b> REMARKS ( <i>Please use this space for any explanations that may</i>	help us in understanding your reported data.)
Thank you for completing your 2007 SURVE DEVELOPMENT	Y OF INDUSTRIAL RESEARCH AND
PLEASE PHOTOCOPY THIS FORM FOR YOUR RE	